



INTERNATIONAL CONFERENCE ON REAL ESTATE  
DEVELOPMENT AND MANAGEMENT

IV. INTERNATIONAL  
CONFERENCE ON REAL ESTATE  
DEVELOPMENT AND  
MANAGEMENT

IV. ULUSLARARASI  
GAYRİMENKUL GELİŞTİRME VE  
YÖNETİMİ KONFERANSI

3 - 5  
ŞUBAT  
FEBRUARY  
2025

CONFERENCE  
BOOK OF

KONFERANS ABSTRACTS

BİLDİRİ

ÖZETLERİ KİTABI

IV. International Conference on Real Estate Development and Management  
ICREDM 2025  
3-5 February 2025  
Ankara University, Department of Real Estate Development and Management



# ICREDM2025 BOOK OF ABSTRACTS

## */ ICREDM2025 BİLDİRİ ÖZETLERİ KİTABI*

IV. INTERNATIONAL CONFERENCE ON  
REAL ESTATE DEVELOPMENT AND MANAGEMENT

*IV. ULUSLARARASI GAYRİMENKUL GELİŞTİRME VE YÖNETİMİ  
KONFERANSI*

Participants Countries: Türkiye, Germany, Azerbaijan, Bangladesh, Belarus, Belgium,  
United Kingdom, Ethiopia, Morocco, France, South Africa, South Korea, Spain,  
Sweden, Switzerland, Italy, Japan, Canada, Kenya, Cyprus, Kyrgyzstan, Hungary,  
Malaysia, Nepal, Norway, Lebanon, Uzbekistan, Russia, Singapore, Serbia, Tanzania,  
England, Jordan, Egypt, Ireland, Slovakia, USA

Ankara University  
Department of Real Estate Development and Management  
Ankara, Türkiye  
February 3-5, 2025

Evaluation Process: All applications have undergone a double-blind peer review process

IV. International Conference on Real Estate Development and Management  
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**Organized by:**

**ANKARA UNIVERSITY FACULTY OF APPLIED SCIENCES  
DEPARTMENT OF REAL ESTATE DEVELOPMENT AND MANAGEMENT**

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**E-ISBN: 978-605-136-896-2**

**Published by:**

Ankara University Faculty of Applied Sciences  
50. Yıl, Münzeviler St. No:87  
06590 Çankaya/Ankara  
Publication Date: 31.01.2025



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3 FEBRUARY 2025 / MONDAY		CONFERENCE AT A GLANCE / KONFERANS ÖZET PROGRAMI
		<b>BİRECİK HALL</b>
08:00- 09:00		REGISTRATION / KAYIT
09:00- 11:00		OPENING CEREMONY / AÇILIŞ TÖRENİ
11:00- 11:15		COFFEE BREAK / KAHVE ARASI
11:15- 13:00		<b>SESSION - I:</b> REAL ESTATE MARKET ANALYSIS AND FINANCIAL TRENDS / GAYRİMENKUL PIYASASI ANALİZİ VE FİNANSAL TRENDLER
13:00- 14:00		LUNCH BREAK / ÖĞLE YEMEĞİ
14:00- 15:45		<b>SESSION - II:</b> REAL ESTATE DEVELOPMENT FROM SUSTAINABLE AND ENVIRONMENTAL PERSPECTIVE / SÜRDÜRÜLEBİLİR VE ÇEVRESEL PERSPEKTİFTEN GAYRİMENKUL GELİŞTİRME
15:45- 16:00		COFFEE BREAK / KAHVE ARASI
16:00- 17:45		<b>SESSION - III:</b> DISASTERS RISKS AND REAL ESTATE MARKETS / AFET RİSKLERİ VE GAYRİMENKUL PIYASALARI
17:45- 18:00		COFFEE BREAK / KAHVE ARASI
18:00 – 19.30		<b>SESSION - IV: (BİRECİK HALL)</b> URBAN ECONOMICS / KENT EKONOMİSİ
		<b>ROUND TABLE DISCUSSION: (CUSTOMISED HALL)</b> REAL ESTATE EDUCATION, INSTITUTIONALIZATION AND RESEARCH SYSTEM / GAYRİMENKUL EĞİTİMİ, KURUMSALLAŞMA VE ARAŞTIRMA SİSTEMİ



CONFERENCE AT A GLANCE / KONFERANS ÖZET PROGRAMI		HAREM		CUSTOMIZED
BİRECİK		HAREM		CUSTOMIZED
09:00-10:45	<b>SESSION - V.A.:</b> LOW-COST HOUSING, AFFORDABILITY AND SOCIAL HOUSING POLICIES / DÜŞÜK MALİYETLİ KONUTLAR, ERİŞİLEBİLİRLİK VE SOSYAL KONUT POLİTİKALARI	<b>SESSION - V.B.:</b> URBAN DEVELOPMENT, HOUSING, AND RESILIENCE / KENTSEL GELİŞİM, KONUT VE DAYANIKLILIK		
10:45-11:00		COFFEE BREAK / KAHVE ARASI		
11:00-12:45	<b>SESSION - V.I.A.:</b> REAL ESTATE MANAGEMENT AND STRATEGIC APPLICATIONS / GAYRİMENKUL YÖNETİMİ VE STRATEJİK UYGULAMALAR	<b>SESSION - V.I.B.:</b> REAL ESTATE MARKETS AND TAXATION SYSTEMS / GAYRİMENKUL PİYASALARI VE VERGİLENDİRME SİSTEMLERİ		<b>SESSION - V.I.C.:</b> SUSTAINABLE FACILITY MANAGEMENT, PERFORMANCE IMPROVEMENT AND COMMUNITY RESILIENCE APPROACH / SÜRDÜRÜLEBİLİR TESİS YÖNETİMİ, PERFORMANS İYİLEŞTİRME VE TOPLUMSAL DİRENÇLİLİK YAKLAŞIMLARI
12:45-13:45		LUNCH BREAK / ÖĞLE ARASI		
13:45-15:30	<b>SESSION - VII.A.:</b> EXPERIENCES OF CITIES REGARDING MIGRATION POLICIES AND SETTLEMENT POLICIES / KENTLERİN GÖÇ POLİTİKALARINA İLİŞKİN DENEYİMLERİ VE YERLEŞİM POLİTİKALARI	<b>SESSION - VII.B.:</b> REAL ESTATE AND HOUSING MARKET ANALYSIS / GAYRİMENKUL VE KONUT PİYASASI ANALİZİ		<b>SESSION - VII.C.:</b> DIGITALIZATION AND TECHNOLOGICAL SOLUTIONS IN REAL ESTATE MARKETS / GAYRİMENKUL SEKTÖRÜNDE DİJİTALLEŞME VE TEKNOLOJİ ÇÖZÜMLERİ
15:30-15:45		COFFEE BREAK / KAHVE ARASI		
15:45-17:30	<b>SESSION - VIII.A.:</b> HOUSING MARKET ANALYSES: LOCAL AND GLOBAL PERSPECTIVES / KONUT PİYASASI ANALİZLERİ: YEREL VE KÜRESEL PERSPEKTİFLER	<b>SESSION - VIII.B.:</b> SUSTAINABILITY, CULTURE, AND MOBILITY: THE FUTURE OF THE REAL ESTATE MARKET / SÜRDÜRÜLEBİLİRLİK, KÜLTÜR VE HAREKETLİLİK: GAYRİMENKUL PİYASASININ GELECEĞİ		<b>SESSION - VIII.C.:</b> FINANCIAL OBLIGATIONS AND PROBLEMS IN FACILITY AND REAL ESTATE MANAGEMENT / TESİS VE GAYRİMENKUL YÖNETİMİNDE MALİ YÜKÜMLÜLÜKLER VE SORUNLAR
17:30-17:45		COFFEE BREAK / KAHVE ARASI		
17:45-19:30	<b>SESSION - IX.A.:</b> THEORY, STANDARDS, AND APPLICATIONS OF EVALUATION / DEĞERLEME TEORİSİ, STANDARTLARI VE UYGULAMALARI	<b>SESSION - IX.B.:</b> URBAN INFRASTRUCTURE / KENTSEL ALTYAPI		<b>SESSION - IX.C.:</b> FACILITY, REAL ESTATE, AND ASSET MANAGEMENT / TESİS, GAYRİMENKUL VE VARLIK YÖNETİMİ
19:30	ICREDM Reception : No4 Restaurant / Wyndham Ankara Hotel			

4 FEBRUARY 2025 / TUESDAY



CONFERENCE AT A GLANCE / KONFERANS ÖZET PROGRAMI	
BİRECİK HAREM	
09:00- 10:45	<b>SESSION - X.A.:</b> CLIMATE POLICY / İKLİM SİYASETİ
10:45- 11:00	<b>SESSION - X.B.:</b> DIGITALIZATION AND TECHNOLOGICAL SOLUTIONS / DİJİTALLEŞME VE TEKNOLOJİ ÇÖZÜMLERİ COFFEE BREAK / KAHVE ARASI
11:00- 12:45	<b>SESSION - XI.A.:</b> REAL ESTATE MARKETS AND TAXATION SYSTEMS / GAYRİMENKUL PİYASALARI VE VERGİLENDİRME SİSTEMLERİ
12:45- 13:45	<b>SESSION - XI.B.:</b> DISASTERS AND THEIR REFLECTIONS ON REAL ESTATE MARKETS / AFETLER VE GAYRİMENKUL PİYASALARINA YANSIMALARI LUNCH / ÖĞLE ARASI
13:45- 15:30	<b>SESSION - XII.A.:</b> 6 FEBRUARY 2023 KAHRAMANMARAŞ EARTHQUAKES AND THE RECONSTRUCTION PROCESS / 6 ŞUBAT 2023 KAHRAMANMARAŞ DEPREMLERİ VE YENİDEN İNŞA SÜRECİ
15:30- 15:45	<b>SESSION - XII.B.:</b> URBAN DEVELOPMENT AND LAND MANAGEMENT / KENTSEL GELİŞTİRME VE ARAZI YÖNETİMİ COFFEE BREAK / KAHVE ARASI
15:45- 17:30	<b>SESSION - XIII.A.:</b> HOUSING ECONOMICS AND POLICIES / KONUT EKONOMİSİ VE POLİTİKALARI
17:30- 17:45	<b>SESSION - XIII.B.:</b> CURRENT SITUATION AND IMPROVEMENT IN FACILITY AND REAL ESTATE MANAGEMENT IN TÜRKİYE / TÜRKİYE'DE TESIS VE GAYRİMENKUL YÖNETİMİNİN MEVCUT DURUMU VE GELİŞTİRİLMESİ COFFEE BREAK / KAHVE ARASI
17:45- 19:30	<b>SESSION - XIV.A.:</b> REAL ESTATE TECHNOLOGIES AND ARTIFICIAL INTELLIGENCE / GAYRİMENKUL TEKNOLOJİLERİ VE YAPAY ZEKA
19:40- 20:00	<b>SESSION - XIV.B.:</b> SUSTAINABLE DEVELOPMENT AND ENERGY EFFICIENCY / SÜRDÜRÜLEBİLİR KALKINMA VE ENERJİ VERİMLİLİĞİ <b>CLOSING SPEECH / KAPANIS KONUŞMASI</b>
	<b>SESSION - X.C.:</b> ACCESSIBILITY AND SUSTAINABILITY IN THE REAL ESTATE AND CONSTRUCTION SECTOR / GAYRİMENKUL VE İNŞAAT SEKTÖRÜNDE ERIŞİLEBİLİRLİK VE SÜRDÜRÜLEBİLİRLİK <b>SESSION - XI.C.:</b> INNOVATION AND SUSTAINABLE SOLUTIONS IN REAL ESTATE AND URBAN DEVELOPMENT / GAYRİMENKUL VE KENTSEL GELİŞİMDE İNOVASYON VE SÜRDÜRÜLEBİLİR ÇÖZÜMLER <b>SESSION - XII.C.:</b> REAL ESTATE MANAGEMENT AND SUSTAINABLE SOLUTIONS: LEGAL, FISCAL, AND ENVIRONMENTAL DIMENSIONS / HUKUKİ, VERGİSEL VE ÇEVRESEL BOYUTLARIYLA GAYRİMENKUL YÖNETİMİ VE SÜRDÜRÜLEBİLİR ÇÖZÜMLER <b>SESSION - XIII.C.:</b> PERSPECTIVES ON SUSTAINABLE DISASTER MANAGEMENT, URBAN TRANSFORMATION, AND THE GREEN ECONOMY / SÜRDÜRÜLEBİLİR AFET YÖNETİMİ, KENTSEL DÖNÜŞÜM VE YEŞİL EKONOMİ PERSPEKTİFLERİ

5 FEBRUARY 2025 / WEDNESDAY



CONFERENCE PROGRAM 1 <sup>ST</sup> DAY / KONFERANS PROGRAMI 1. GÜN	
03.02.2025 MONDAY / PAZARTESİ	
1 / 3	
BİRECİK HALL	
08.00 – 09.00	Conference Registration / Konferans Kayıt & Coffee Treat / Kahve İkram
09.00 – 11.00	ICREDM2025 IV. International Conference on Real Estate Development and Management Opening Ceremony / Açılış Töreni <b>Prof. Harun TANIRVERMİŞ</b> Chairperson, European Real Estate Society (ERES) Assoc. Prof. Özdin KE President, International Real Estate Society <b>Mr. Justin SULLIVAN</b> President, Royal Institution of Chartered Surveyors (RICS) <b>Prof. Necdet ÜNÜVAR</b> Rector, Ankara University <b>Mr. Murat KURUM</b> (with their honor) Minister, the Ministry of Environment, Urbanisation and Climate Change, Türkiye <b>Mr. Mehmet ŞİMŞEK</b> (with their honor) Minister, the Ministry of Treasury and Finance, Türkiye
11.00 – 11.15	Coffee Break / Kahve Arası
11.15 – 13.00	<b>I. SESSION / I. OTURUM: REAL ESTATE MARKET ANALYSIS AND FINANCIAL TRENDS / GAYRİMENKUL PİYASASI ANALİZİ VE FİNANSAL TRENDLER</b> <i>Keynote Neşecan Çakıcı, Chairman of the Board of Directors, GYODER. "Real estate investment trusts in Türkiye / Türkiye'de gayrimenkul yatırım ortaklıkları"</i> <b>Moderator: Prof. F. Nihan Çudenir-Sönmez, Ankara University, Türkiye</b> <b>Dr. Kok Keong Tan, National University of Singapore (NUS), Singapore</b> <b>Assoc. Prof. Wen Leng Chew, International University of Singapore</b> <b>Prof. Seoung Eui Oh, National University of Singapore (NUS), Singapore</b> <b>Assoc. Prof. Meyyail Ahsan, Ankara University, Türkiye</b> <b>Prof. Harun Tanıvermiş, Ankara University, Türkiye</b> <b>Prof. Yeşim Tanıvermiş, Ankara University, Türkiye</b> <b>Prof. Harun Tanıvermiş, Ankara University, Türkiye</b> <b>Assoc. Prof. Burçinhan Adewale Bello, Faculty of Arts and Social Studies, Abdurrahman Ali-Sumaila University, Tanzania</b> <b>Assoc. Prof. Mesurat Agilimi Salami, Ankara University, Türkiye</b> <b>Sr. Dr. Nor Azalina Yusofa Abdul Rahman, Universiti Teknologi MARA, Malaysia</b> <b>Prof. Thunipia Binti Mohd, Universiti Teknologi MARA (Perak), Malaysia</b> <b>Prof. Faridah Yusof, Universiti Teknologi MARA (Perak), Malaysia</b> <b>SRI Ekraa Binti Che Phe, Universiti Teknologi MARA (Perak), Malaysia</b> <b>Lect. Nurulhuda Binti Afi, Universiti Teknologi MARA (Perak), Malaysia</b> <b>Dr. Ing. Sevim Bakırcı Rısi, Letterin Immobilienmanagement PK ALSA, Switzerland</b>
13.00 – 14.00	Lunch Break / Öğle Yemeği



  
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CONFERENCE PROGRAM 1<sup>ST</sup> DAY / KONFERANS PROGRAMI 1. GÜN  
03.02.2025 MONDAY / PAZARTESİ

**BİRECİK HALL**

REAL ESTATE DEVELOPMENT FROM SUSTAINABLE AND ENVIRONMENTAL PERSPECTIVE / SÜRDÜRÜLEBİLİR VE ÇEVRESEL PERSPEKTİFTEN GAYRİMENKUL GELİŞTİRME

14.00 – 15.45  
II. SESSION / II. OTURUM:

Presents / Sponsorluğunda  


**Keynote Speaker:**  
*Simla Budakaçlı, Denge Gayrimenkul Değerleme ve Danışmanlık A.Ş.  
"Real estate valuation and ESG / Gayrimenkul değerleme ve ÇSY"*

**Moderator:**  
*Dr. Sr. Hasniyati Binti Hamzah, Universiti Malaya, Malaysia*

**Assoc. Prof. Qulin Ke, Chairperson, European Real Estate Society (ERES),  
Bartlett School of Planning, University College London**

**Assist. Prof. Fangchen (Melania) Zhang, Department of Architecture and Built  
Environment,  
Northumbria University Newcastle, UK**

**Dr. Ing. Sevim Bakirci Rissi, Letterin Immobilienmanagement PK ALSA,  
Switzerland**

**Assist. Prof. Rania Aburamadan, School of Architecture, Applied Science  
University, Jordan**

**Victoria Andrea Catella, Faculty of Engineering and Digital Technologies,  
University of Bradford, United Kingdom**

**Prof. Markus Schaffert, Mainz University of Applied Sciences, Germany**

**Centre Şahinkaya, Mainz University of Applied Sciences, Germany**

**Dr. Ing. Andreas Hendricks, University of Bundeswehr Munich, Germany**

**Usmanov Bahrom, Director, GU "Toshkentboshtiplanli", Uzbekistan**

**Sayfiyev Akromxon, Head of the department, GU "Toshkentboshtiplanli",  
Uzbekistan**

**Pierre Missioux, General Manager of SAFER de l'Île-de-France, France**

**Property tax, valuation for tax purposes and mass valuation practices in  
Switzerland / İsviçre'de emlak vergisi, vergi amaçlı değerlendirme ve toplu  
değerleme uygulamaları**

**Improving sanitation systems in Southern Jordan: Implementing mobile  
latrines for vulnerable communities through a socially-driven approach /  
Güney Ürdün'de sanitasyon sistemlerinin iyileştirilmesi: Sosyal odaklı bir  
yaklaşım ile hassas topluluklar için mobil tuvaletlerin uygulanması**

**Zero net land take in rural Germany: Engaging communities with geospatial  
storytelling / Kırsal Almanya'da sıfır net arazi kullanımı: Coğrafi hikâye anlatımı  
ile toplulukların katılımını sağlama**

**Master plans in the Republic of Uzbekistan / Özbekistan Cumhuriyeti'nde  
master planlar**

**Protection of agricultural and natural areas in the new version of the Master  
Plan for the Paris Region / Paris Bölgesi Yeni Master Planı'nda tarım ve doğal  
alanların korunması**

15.45-16.00  
Coffee Break / Kahve Arası

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03.02.2025 MONDAY / PAZARTESİ	1 / 3
CONFERENCE PROGRAM 1 <sup>ST</sup> DAY / KONFERANS PROGRAMI 1. GÜN	
16. <sup>00</sup> – 17. <sup>45</sup>	<b>BİRECİK HALL</b> <b>DISASTERS RISKS AND REAL ESTATE MARKETS / AFET RİSKLERİ VE GAYRİMENKUL PİYASALARI</b>
	<b>III. SESSION / III. OTURUM:</b>
	<b>In Memory of Prof. Claudia Trillo</b> <i>Victoria Andrea Cotella, Faculty of Engineering and Digital Technologies, University of Bradford, United Kingdom "Digital technologies for cultural heritage conservation: An overview of Professor Claudia Trillo's research journey"</i>
	<b>Moderator:</b> <b>Prof. Mehmet Eryılmaz</b> , President, Association for Disaster Research & Faculty of Medicine, University of Health Sciences, Türkiye
	<b>Prof. Okan Tüysüz</b> , Emeritus Professor, Istanbul Technical University, Member of the Academy of Sciences
	<b>Prof. Orhan Tatar</b> , Director General, General Directorate of Earthquake and Risk Mitigation, Ministry of Interior, Disaster and Emergency Management Authority (AFAD), Türkiye
	<b>Prof. Aykut Akgün</b> , Head of Earthquake Department, General Directorate of Earthquake and Risk Mitigation, Ministry of Interior, Disaster and Emergency Management Authority (AFAD), Türkiye
	<b>Yoshinori Moriwaki</b> , Senior Architect, Civil Engineering Specialist, Türkiye General Manager - Hazama Ando Corporation, Secretary General - Overseas Construction Companies Association of Japan
	<b>Prof. Recep Kılıç</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye
	<b>Prof. Füsün Demirel</b> , Faculty of Architecture, Gazi University
	<b>Dr. Veli Bülke</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye
17. <sup>45</sup> - 18. <sup>00</sup>	<b>Coffee Break / Kahve Arası</b>



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CONFERENCE PROGRAM 1<sup>ST</sup> DAY / KONFERANS PROGRAMI 1. GÜN

03.02.2025 MONDAY / PAZARTESİ

18.00 – 19.30  
ROUND TABLE DISCUSSION: REAL ESTATE EDUCATION, INSTITUTIONALIZATION AND RESEARCH SYSTEM / GAYRİMENKUL EĞİTİMİ, KURUMSALLAŞMA VE ARAŞTIRMA SİSTEMİ  
CUSTOMISED HALL

**Moderator:**  
*Prof. Harun Tanrıvermiş, Ankara University, Türkiye*

**Reporters:**  
*Asst. Prof. Mansurat Awajimi Solami, Department of Real Estate Development and Management, Ankara University, Türkiye*  
*Res. Asst. Girem Ulusoy, Department of Real Estate Development and Management, Ankara University, Türkiye*

**CONTRIBUTORS:**

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Dr. Ing. Sevin Balırcı Rıtsı, Letten Immobilienmanagement PK ALSA, Switzerland  
Prof. F. Nihan Özdemir Şimşek, Department of Real Estate Development and Management, Ankara University, Türkiye  
Prof. Dr. Ali Parsa, University of Westminster, UK  
Assoc. Prof. Omokolade Alimisoni, President, International Real Estate Society  
Dr. Sr. Haniyati Binti Hamzah, Universiti Malaya, Malaysia  
Yasser Zannoun, Voice-Of-FM, Egypt  
Prof. Alenka Temeljotov Salaj, Norwegian University of Science and Technology, Norway  
Prof. Eren Özus, Beykent University, Türkiye  
Dr. Burak Çetindağ, Regeneration Manager, London Borough of Newham, UK  
Prof. Aleksandra Djukić, Faculty of Architecture, University of Belgrade, Serbia  
Lect. Patrick H. Bond, University of London, UK  
Prof. Rehan Sadig, The University of British Columbia, Canada  
**Asst. Prof. Habtamu Sifotaw**, Bahir Dar University, Ethiopia  
Shukri Habib, Eng., FMP, QualServ, Lebanon  
Asst. Prof. Anastasia Sedova, Izhevsk State Technical University, Anastasia Sedova Architects, Russia  
Assoc. Prof. Yuen Leng Chow, International University of Japan, Japan  
Prof. Kth Mdi Naliduzzaman, Mohammed VI Polytechnic University (UM6P), Morocco



CONFERENCE PROGRAM 1<sup>ST</sup> DAY / KONFERANS PROGRAMI 1. GÜN  
03.02.2025 MONDAY / PAZARTESİ

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**BİRECİK HALL**

**IV. SESSION / IV. OTURUM:** URBAN ECONOMICS / KENT EKONOMİSİ  
18.00 – 19.30

**Moderator:**  
*Dr. Cemal Baş, Ministry of Environment, Urbanization and Climate Change & Ankara University, Türkiye*


**Assoc. Prof. Hacı Mustafa Palancıoğlu, Mayor, Melikgazi Municipality, Türkiye**  
*The contribution of city markets to urban economy: The case of Çarşı Melikgazi / Kent pazarlarının kentsel ekonomiye katkısı: Çarşı Melikgazi örneği*

**Dr. Akın Kisa, General Director, Directorate General of Geographic Information Systems, Ministry of Environment, Urbanization and Climate Change, Türkiye**  
*The contribution of preparing a local smart city strategy and roadmap to urban economy / Yerel Akıllı şehir stratejisi ve yol haritası hazırlanmasının kentsel ekonomiye katkıları*

**Assoc. Prof. Yahya Can Dura, Turkish Association of Municipalities, Türkiye**  
*The management power of municipalities in the urban economy: Resources, opportunities and problems / Belediyelerin kent ekonomisindeki yönetim gücü: Kaynaklar, fırsatlar ve sorunlar*

**Dr. Nihal Eminoğlu, Department of Politics and Economics, Faculty of Political Sciences, Ankara University, Türkiye**  
*The impact of migration on local economy and local integration: The case of Türkiye / Göçün yerel ekonomi ve yerelde sosyal uyuma etkisi: Türkiye örneği*



CONFERENCE PROGRAM 2 <sup>ND</sup> DAY / KONFERANS PROGRAMI 2. GÜN	
04.02.2025 TUESDAY / SALI	
 <b>2 / 3</b>	<b>HAREM HALL</b>
<b>BİRECİK HALL</b>	<b>SESSION – V.A: URBAN DEVELOPMENT, HOUSING, AND RESILIENCE / KENTSEL GELİŞİM, KONUT VE DAYANIKLILIK</b> <b>Moderator: Prof. Robin Staffin, The University of British Columbia, Canada</b>
<p><b>09.00 – 10.45</b></p> <p><b>SESSION – V.A: LOW-COST HOUSING, AFFORDABILITY AND SOCIAL HOUSING POLICIES / DÜŞÜK MALİYETLİ KONUTLAR, ERŞİLEBİLİRLİK VE SOSYAL KONUT POLİTİKALARI</b>  <b>Moderator: Dr. Claude Albert Moutcheke Ngomsi, Head, Central Africa Hub, DRC Regional Office for Africa, UN-Habitat</b></p> <p><b>Prof. Anirban Mozataf, Khulna University, Bangladesh</b>  <b>Prof. Afroz Parvin, Architecture Discipline Science, Engineering and Technology School, Khulna University, Bangladesh</b>  <b>Asst. Prof. Ibrahim Hossain Fohal, Khulna University, Bangladesh</b>  <b>Micro-level factors of housing affordability and rent: A cross-sectional analysis / Konut erişilebilirliği ve kira ücretleri mikro düzey faktörler: Kesitsel bir analiz</b></p> <p><b>Prof. Afroz Parvin, Architecture Discipline Science, Engineering and Technology School, Khulna University, Bangladesh</b>  <b>Prof. Anirban Mozataf, Khulna University, Bangladesh</b>  <b>Lect. Tanha Tabassum Fika, Bangladesh Sheikh Mujibur Rahman Science and Technology University, Bangladesh</b>  <b>Ashrafuz Zaman, Khulna University, Bangladesh</b>  <b>Exploring the spatial dimensions of housing affordability: An integrated model for measuring sustainability indicators in residential real estate / Konut erişilebilirliğini mekanik boyutlarını iç içe geçirmek: Konutlarda sürdürülebilirlik göstergelerini ölçmek için entegre bir model</b></p> <p><b>Asst. Prof. Bunyamin Adevalu Bello, Department of Social Studies, Faculty of Arts and Social Studies, Abia State University, Zaria, Nigeria</b>  <b>Contribution of Islamic social financing towards housing affordability for less privileged population / İslami sosyal finansmanın dezavantajlı nüfus için konut erişilebilirliğine katkı</b></p> <p><b>Christian König, Managing Director, the Association of Private Bauverksassen in Belgium, Germany and the European Federation of Building Societies, Brussels</b>  <b>Contracted savings for housing (Bauparc) – A resilient solution for global housing finance challenges / Konut tasarrufları (Bauparc) – Kuvvetli konut finansman zorlukları için çözüm bir çözüm</b></p>	<p><b>Dr. Sr. Haniffa Binte Haniffah, Universiti Malaysia, Malaysia</b>  <b>Dr. Sr. Zafiraah Asadat Ciyed, Department of Real Estate, Universiti Malaysia, Malaysia</b>  <b>Assoc. Prof. Dr. Adina Aidi Yusoff, Department of Real Estate, Universiti Tun Hussein Onn, Malaysia</b>  <b>Devy Shafiq Azmi, Department of Real Estate, Universiti Malaysia, Malaysia</b>  <b>Developing a framework for improving rent-to-own housing sector by addressing institutional challenges to implementation in Malaysia / Malaysia'da yerleşimci konut sektörünü geliştirme için kurumsal zorlukları ele alma: Kira-öde konut sektörüne çerçeve geliştirme</b></p> <p><b>Assoc. Prof. Dr. Izzati Saadawati, Department of Real Estate and Construction Management Royal Institute of Technology (KTH), Sweden</b>  <b>Prof. Mats Wilhelmsson, Department of Real Estate and Construction Management Royal Institute of Technology (KTH), Sweden</b>  <b>Spotlight on housing: Assessing municipal attractiveness and enticement through longitudinal residential stability / Konutün ışığında: Uzun dönemli konut istikrarını değerlendirme ve hapsedirici durumları değerlendirme</b></p> <p><b>Lect. Nurhuda Binti Ali, Universiti Teknologi MABA (Perak), Malaysia</b>  <b>Prof. Sr. Dr. Anuar Bin Alias, Universiti Tunku Abdul Rahman (UTAR), Malaysia</b>  <b>Dr. Sr. Haniffa Binte Haniffah, Universiti Malaysia, Malaysia</b>  <b>Assoc. Prof. Dr. Nur Hafizah Yusoff, Universiti Tunku Abdul Rahman (UTAR), Malaysia</b>  <b>Khalid Nazam, Tempong Brasa Development Corporation, Malaysia</b>  <b>Dr. Nur Azalina Yusoff, Universiti Teknologi MABA, Malaysia</b>  <b>Lect. Siti Fauziah Pih, Universiti Teknologi MABA (Perak), Malaysia</b>  <b>A framework of economic indicators for transient-oriented development: A case study of Bandar Sunway, Malaysia / Geçici konut odaklı kalkınma için ekonomik göstergeler çerçevesi: Malaysia, Bandar Sunway, Orangi</b></p> <p><b>Dr. Amalina Azmi, Department of Real Estate, Universiti Malaysia, Malaysia</b>  <b>Evelyn Chea Tong Lin, University Tunku Abdul Rahman (UTAR)</b>  <b>Assoc. Prof. Dr. Azy Samsulhan, Department of Building and Property Management, Universiti Tunku Abdul Rahman (UTAR)</b>  <b>To drive or not to drive at the golden age / Altın çağa araç kullanmak ya da kullanmamak</b></p> <p><b>David Helfman, Technological University Dublin, Ireland</b>  <b>Harmonising property valuation education and standards: A comparative analysis of Ireland, Turkey, and France / Harmonizing property valuation education and standards: İrlanda, Türkiye ve Fransa'nın karşılaştırılması analizi</b></p> <p><b>Asst. Prof. Adalgis Agnighu, Bahir Dar University, Ethiopia</b>  <b>Asst. Prof. Habtamu Shabaw, Bahir Dar University, Ethiopia</b>  <b>The role of land governance in urban resilience: A critical analysis of Ethiopia's land policy in addressing the challenges of rapid urbanisation / Şehirleşmenin hızlanmasında yerleşim alanlarının yönetimi ve dayanıklılığın rolü: Etiyopya'nın hızlı kentleşimle mücadele etmesi için ulusal politikaların analizi</b></p>
<b>10.45 – 11.00</b>	<b>Coffee Break / Kahve Arası</b>



CONFERENCE PROGRAM 2 <sup>ND</sup> DAY / KONFERANS PROGRAMI 2. GÜN	
04.02.2025 TUESDAY / SALI	
2 / 3	HAREM HALL
11.00 – 12.45	SESSION – VI.A: REAL ESTATE MANAGEMENT AND STRATEGIC APPLICATIONS / GAYRİMENKUL YÖNETİMİ VE STRATEJİK UYGULAMALAR
<p><b>Keynote Speaker:</b>  <i>Prof. Mustafa Necmi İlhan, Gazi University, Faculty of Medicine &amp; Vocational Qualifications Authority of Turkey, Türkiye</i>  <i>"Professional qualification in the real estate sector/ Gayrimenkul sektöründe mesleki yeterlilik"</i></p> <p><b>Moderator: Assoc. Prof. Abulkar Warsame, Department of Real Estate and Construction Management Royal Institute of Technology (KTH), Sweden</b>  <i>Karl-Friedrich Keimecke, IRBIS University of Regensburg, Germany</i>  <i>Rupprecht Ertel, Institute Wohnen und Umwelt (IWU), Germany</i>  <i>Prof. Tobias Jost, IRBIS, Regensburg University, Germany</i>  <i>Activity based clustering of real estate operating companies and the varying adjustment to shocks / Gayrimenkul işletme şirketlerinin faaliyet tabanlı kümelenmesi ve şoklara gösterdikleri farklı uygulamalar</i></p> <p><i>Prof. Marzia Morena, Politecnico di Milano, Italy</i>  <i>Tommaso Truppi, Politecnico di Milano, Italy</i>  <i>Lect. Andrej Adamušin, Slovak University of Technology, Bratislava, Slovakia</i>  <i>Giulia Cutuli, Politecnico di Milano, Italy</i>  <i>The role played by the Italian public administration for the enhancement of confiscated real estate assets / İtalyan kamu yönetiminin el konulan gayrimenkul varlıklarının değerlendirilmesindeki rolü</i></p> <p><i>Yasser Zannoun, Voice-Of-FM, Egypt</i>  <i>Training and education in facility management: A case study from Egypt and Saudi Arabia / Tesis yönetiminde eğitim ve öğretim: Mısır ve Suudi Arabistan'dan bir vaka çalışması</i></p> <p><i>Shukri Habib, Eng. FMP, Qualiserv, Lebanon</i>  <i>Post construction strategic planning aligned with ISO 41001 / ISO 41001 ile uyumlu, inşaat sonrası stratejik planlama</i></p> <p><i>Nakawan Namazawa, Azerbaijan Technical University, Azerbaijan</i>  <i>E-commerce in the modern era: Expectations, changing demands and impacts / Modern çağda e-ticaret: Beklentiler, değişen talepler ve etkiler</i></p> <p><i>Dr. Dursun Onur İlhan, Department of Real Estate Development and Management, Ankara University, Türkiye</i>  <i>Performance analysis of fast-food operators in the Turkish shopping centers / Türk alışveriş merkezlerindeki fast-food işletmelerinin performans analizi</i></p>	
Lunch Break / Öğle Yemeği	
12.45 – 13.45	SESSION – VI.B: REAL ESTATE MARKETS AND TAXATION SYSTEMS / GAYRİMENKUL PİYASALARI VE VERGİLENDİRME SİSTEMLERİ
<p><b>Keynote Speaker:</b>  <i>Behir Yener Yıldırım, Chairman of the Board of Directors, Neo Asset Management Co.</i>  <i>"Real estate investment funds in Türkiye and their future / Türkiye'de gayrimenkul yatırım fonları ve geleceği"</i></p> <p><b>Moderator: Mühürin Aköz, Chairperson, Turkish Tax Inspection Board, Ministry of Treasury and Finance, Türkiye</b>  <i>Prof. Selda Aydın, Department of Finance, Ankara Hacı Bayram Veli University, Türkiye</i>  <i>Res. Asist. Murat Zorkun, Department of Business, Kastamonu University, Türkiye</i>  <i>A critical approach to the valuable housing tax / Değerli konut vergisine eleştirel bir yaklaşım</i></p> <p><i>Dr. İsmail İlhan Hatipoğlu, Ministry of Treasury and Finance, Türkiye</i>  <i>Asst. Prof. Mousun Ayoğim Salami, Ankara University, Türkiye</i>  <i>New perspective of real estate taxation and restructuring of care-in practices / Gayrimenkul vergilemesinde yeni trendler ve mevcut uygulamaların yeniden yapılanılması</i></p> <p><i>Prof. Erol Demir, Ankara University, Türkiye</i>  <i>Assoc. Prof. Fazıl Aydın, Ministry of Treasury and Finance, Türkiye</i>  <i>Dr. İsmail İlhan Hatipoğlu, Ministry of Treasury and Finance, Türkiye</i>  <i>Taxation of real estate investment trusts (REITs) and real estate investment funds (REIFs) / Gayrimenkul yatırım ortaklıkları (GTO) ve gayrimenkul yatırım fonlarının (GYF) vergilelenmesi</i></p> <p><i>Prof. Selda Aydın, Department of Finance, Ankara Hacı Bayram Veli University, Türkiye</i>  <i>Roban Önder, Department of Finance, Ankara Hacı Bayram Veli University, Türkiye</i>  <i>Real estate valuation in inheritance and transfer tax / Varsalet ve intikal vergisinde gayrimenkul değerlemesi</i></p> <p><i>Prof. Mesut Doğan, Bilisik, Seyh Edebali University, Türkiye</i>  <i>Dr. Asımcan Erben Yavuz, Bülent University, Türkiye</i>  <i>The dynamic connectivity relationship between green and global real estate indices and the BST RET and BST100 index: An evaluation from an investment perspective / Yeşil ve küresel gayrimenkul endeksleri ile BST GYO ve BST100 endeksi arasındaki dinamik bağlantı ilişkisi: Yatırım perspektifinden bir değerlendirme</i></p> <p><i>Menve Alp, Westminster Business School University of Westminster, UK</i>  <i>Prof. Dr. Ali Parsa, University of Westminster, UK</i>  <i>The relationship between board structure and corporate risk taking in Turkish Real Estate Investment Companies (REICs) / Türkiye'deki gayrimenkul yatırım ortaklıklarında (GYO) yönetim kurulu yapısı ile kurumsal risk alma arasındaki ilişki</i></p>	



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CONFERENCE PROGRAM 2<sup>ND</sup> DAY / KONFERANS PROGRAMI 2. GÜN

04.02.2025 TUESDAY / SALI

CUSTOMISED HALL

SESSION – VI.C: SUSTAINABLE FACILITY MANAGEMENT, PERFORMANCE IMPROVEMENT AND COMMUNITY RESILIENCE APPROACH /  
SÜRDÜRÜLEBİLİR TESİS YÖNETİMİ, PERFORMANS İYİLEŞTİRME VE TOPLUMSAL DİRENÇLİLİK YAKLAŞIMLARI

11.00 – 12.45

Moderator:

Leçt. Sinan Güneş, Department of Real Estate Development and Management, Ankara University, Türkiye  
Serge Bunt, Department of Real Estate Development and Management, Ankara University, Türkiye  
Zahra Akdoğan, Department of Real Estate Development and Management, Ankara University, Türkiye  
Zahra Akdoğan, Department of Real Estate Development and Management, Ankara University, Türkiye  
Zahra Akdoğan, Department of Real Estate Development and Management, Ankara University, Türkiye

*Alignment of strategic plans with sustainable facility management and performance improvement in university campuses / Üniversite kampüslerinde stratejik planların sürdürülebilir tesis yönetimi ile uyumlaştırılması ve performans artışı*

Leçt. Sinan Güneş, Department of Real Estate Development and Management, Ankara University, Türkiye  
Asist. Prof. Esra Keskin, Department of Real Estate Development and Management, Ankara University, Türkiye  
Beyza Madride Asen, Department of Real Estate Development and Management, Ankara University, Türkiye

Büşra Erbuğ, Department of Real Estate Development and Management, Ankara University, Türkiye

Sıla Erbuğ, Department of Real Estate Development and Management, Ankara University, Türkiye

*Performance improvement in university campuses in the context of value-added facility management approach and sustainable development goals / Üniversite kampüslerinde değer katan tesis yönetimi yaklaşım ve sürdürülebilir kalkınma hedefleri bağlamında performans artışı*

Res. Asist. Gizem Ulusoy, Department of Real Estate Development and Management, Ankara University, Türkiye

Prof. Yeşim Tavırcıoğlu, Department of Real Estate Development and Management, Ankara University, Türkiye

*Determination of restrictive policies for foreigner's real estate acquisition in the context of agricultural lands: The case of Türkiye / Tarım arazileri bağlamında yabancıların gayrimenkul edinimine yönelik kısıtlayıcı politikaların belirlenmesi: Türkiye örneği*

Asist. Prof. Esra Keskin, Department of Real Estate Development and Management, Ankara University, Türkiye

Dilara Avaro, Department of Real Estate Development and Management, Ankara University, Türkiye

Egri Ekinöz, Department of Real Estate Development and Management, Ankara University, Türkiye

Merve Serinur Alabab, Department of Real Estate Development and Management, Ankara University, Türkiye

Sedatmur Kılıç, Department of Real Estate Development and Management, Ankara University, Türkiye

*Analysis of sustainable facility management performance in campuses: The case of Ankara University Beşevler Campus / Kampüslerde sürdürülebilir tesis yönetimi performansının analizi: Ankara Üniversitesi Beşevler Yerleşkesi örneği*

Ummuhan Yokuşoğlu, Real Estate Development Master's Degree Program, Istanbul Technical University, Türkiye

*Utilization of Sweden's renewable energy strategies for sustainable PV Park site selection in Türkiye / Türkiye'de sürdürülebilir PV Park alanı seçimi için İsveç'in yenilenebilir enerji stratejilerinden yararlanma*

Asist. Prof. Esra Keskin, Department of Real Estate Development and Management, Ankara University, Türkiye

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12.45 – 13.45

Launch Break / Öğle Yemeği



CONFERENCE PROGRAM 2 <sup>ND</sup> DAY / KONFERANS PROGRAMI 2. GÜN 04.02.2025 TUESDAY / SALI		2 / 3	
BİRECİK HALL		HAREM HALL	
13.45 – 15.30	<b>SESSION-VII.A: EXPERIENCES OF CITIES REGARDING MIGRATION POLICIES AND SETTLEMENT POLICIES / KENTLERİN GÖÇ POLİTİKALARINA İLİŞKİN DENEYİMLERİ VE YERLEŞİM POLİTİKALARI</b>	<b>SESSION – VII.B: REAL ESTATE AND HOUSING MARKET ANALYSIS / GAYRİMENKUL VE KONUT PİYASASI ANALİZİ</b>	
<b>Moderator:</b> <b>Prof. Yakup Kumtepe,</b> Vice Rector, Ankara University, Türkiye		<b>Moderator:</b> <b>Prof. Ruşen Keleş,</b> Ankara University, Türkiye	
<b>Prof. Murat Erdoğan,</b> Director, The Migration and Integration Research Center, Turkish-German University, Türkiye <i>Migration policies and dynamics in Türkiye from past to present / Geçmişten günümüze Türkiye'de göç politikaları ve dinamikleri</i>		<b>Seid Dossalegn Shafi,</b> Civil Engineer, OZEM Engineering, Türkiye <b>Prof. Mustafa Tonbul,</b> Department of Real Estate Development and Management, Faculty of Applied Sciences, Ankara University, Ankara, Türkiye <i>Ethiopia's real estate market in a market-driven currency system: Navigating risks and opportunities / Etiyopya'nın serbest piyasa döviz sistemiyle yönetilen gayrimenkul pazarı: Riskler ve fırsatların yönetimi</i>	
<b>Prof. Yakup Bulut,</b> Faculty of Economics and Administrative Sciences, Gaziantep University, Türkiye <i>Migration and social dynamics / Göç ve toplumsal dinamikler</i>		<b>Dr. Mekamu Belachew Wages,</b> Institute of Land Administration, Bahir Dar University, Ethiopia <i>Legislative framework for real estate development and management in Ethiopia: A comparison with the US-Georgia system / Etiyopya'da gayrimenkul geliştirme ve yönetimi için yasal çerçeve: ABD-Georgia sistemiyle karşılaştırma</i>	
<b>Atilla Toros,</b> General Director, Presidency of Migration Management, Ministry of Interior, Türkiye <i>The current policies and practices of the Presidency of Migration Management / Göç İdaresi Başkanlığının güncel politikası ve uygulamaları</i>		<b>Haymanot Akrat Mekonnen,</b> Jangsu International Company, Addis Ababa, Ethiopia <b>Asst. Prof. Habtamu Bishaw Ayres,</b> Institute of Land Administration, Bahir Dar University, Ethiopia <i>Determinants of housing price in ethiopia: Evidence from Dabte Maros town / Etiyopya'da konut fiyatlarının belirleyicileri: Dabte Maros şehri örneğinden kanıtlar</i>	
<b>Prof. Mihdat Arman Karasu,</b> Hıran University, Türkiye <i>The effects of Syrian asylum seekers on urban space: The case of Sanlıurfa / Suriyeli sığınmacıların kentsel mekân üzerindeki etkileri: Sanlıurfa örneği</i>		<b>Res. Asst. Dr. Zeynep Ulaşay,</b> Department of Real Estate Development and Management, Faculty of Applied Sciences, Ankara University, Ankara, Türkiye <b>Prof. Nuri Semih Özlü,</b> Department of Economics, Faculty of Political Sciences, Ankara University, Türkiye <i>Bibliometric analysis of studies on the concepts of real estate sector and global financial crisis with VOSviewer / Gayrimenkul sektörü ve küresel finansal kriz kavramları üzerine yapılan çalışmaların bibliyometrik analizi</i>	
<b>Assoc. Prof. Hicran Hamaç Çelikkaya,</b> Department of Political Science and Public Administration, Akşaroca Bey Faculty of Political Science, Düzce University, Türkiye <b>Katiba Yalçın,</b> Department of Political Science and Public Administration, Düzce University, Türkiye <i>Municipal policies towards migrants / Belediyelerin göçmenlere yönelik politikaları</i>		<b>Prof. Evren Öztas,</b> Beykent University, Türkiye <b>Prof. Vedat Döğemest,</b> Faculty of Architecture, İstanbul Technical University, Türkiye <i>Analysis of housing price distribution in the districts of İstanbul by the use of rank-size rule / İstanbul ilçe/merkezi konut fiyat dağılımını sıra boyut kuralları ile analizi</i>	
<b>Assoc. Prof. Hicran Hamaç Çelikkaya,</b> Department of Political Science and Public Administration, Akşaroca Bey Faculty of Political Science, Düzce University, Türkiye <b>Katiba Yalçın,</b> Department of Political Science and Public Administration, Düzce University, Türkiye <i>Municipal policies towards migrants / Belediyelerin göçmenlere yönelik politikaları</i>		<b>Prof. Aleksandra Djukić,</b> Faculty of Architecture, University of Belgrade, Serbia <b>Dr. Jelena Bićković,</b> Faculty of Architecture, University of Belgrade, Serbia <i>Location, branding, comfort: Analysis of factors affecting real estate values of new residential developments in Belgrade / Konum, marka değeri, konfor: Belgrad'daki yeni konut projelerinin gayrimenkul değerlerini etkileyen faktörlerin analizi</i>	
15.30 – 15.45		14	
Coffee Break / Kahve Arası			



CONFERENCE PROGRAM 2 <sup>ND</sup> DAY / KONFERANS PROGRAMI 2. GÜN	2 / 3
04.02.2025 TUESDAY / SALI	
13.45 – 15.30	
<b>SESSION – VII.C: DIGITALIZATION AND TECHNOLOGICAL SOLUTIONS IN REAL ESTATE MARKETS / GAYRİMENKUL SEKTÖRÜNDE DÜİTALLEŞME VE TEKNOLOJİ ÇÖZÜMLERİ</b>	<b>CUSTOMISED HALL</b>
<i>Moderator:</i> <b>Dr. Akın Kisa</b> , Deputy General Director, Directorate General of Geographic Information Systems, Ministry of Environment, Urbanization and Climate Change, Türkiye	
<b>Prof. Murat Yakar</b> , Department of Geomatics Engineering, Mersin University, Türkiye <i>Wearable LIDAR technology and its usability in cadastral surveying / Giyilebilir LIDAR teknolojisi ve kadastra ölçümünde kullanılabilirliği</i>	
<i>Asst. Prof. Mustafa Karay Erentürk</i> , İstanbul Aydın University, Türkiye <i>The effect of employee attitude towards artificial intelligence applications on individual job performance / Yapay zekâ uygulamalarına yönelik işveren tutumunun bireysel iş performansına etkisi</i>	
<b>Elif Hande Edinsel</b> , Department of Real Estate Development and Management, Ankara University, Türkiye <b>Prof. Furkan Başer</b> , Department of Actuarial Science, Ankara University, Türkiye <i>Home credit risk modelling with the fuzzy regression functions method / Bulanık regresyon fonksiyonları yöntemi ile konut kredisi riski modellemesi</i>	
<b>Duaa Abu Sadaa</b> , Middle East Technical University, Türkiye <b>Dr. Tuncay Küçükpehlivan</b> , Basarsoft, Türkiye <i>Developing a GIS tool to analyze housing price variability in urban regions case study Ankara / Kent bölgelerinde konut fiyatı değişkenliğini analiz etmek için bir CBS aracı geliştirilmesi: Ankara örneği</i>	
15.30 – 15.45	Coffee Break / Kahve Arası



CONFERENCE PROGRAM 2 <sup>ND</sup> DAY / KONFERANS PROGRAMI 2. GÜN		Presents / Sponsorluğunda	
04.02.2025 TUESDAY / SALI		2 / 3	
BİREÇİK HALL		VakıfBank	
BİREÇİK HALL		HAREM HALL	
15.45 – 17.30	<p><b>SESSION – VIII.A: HOUSING MARKET ANALYSES: LOCAL AND GLOBAL PERSPECTIVES / KONUT PİYASASI ANALİZLERİ: YEREL VE KÜRESEL PERSPEKTİFLER</b></p> <p><i>Keynote Speaker: Prof. Khaled Mahdoui, Mohammed VI Polytechnic University (UM6P), Morocco. "Urbanization and planning approach after COVID-19 / COVID-19 sonrası kentleşme ve planlama yaklaşımı"</i></p> <p>Prof. Dr. Ali Parra, University of Westminster, UK                  Lect. George Maltessa, Westminster Business School, University of Westminster, UK                  Jihane Moutou, Shuraa Business Setup, UK                  Prof. Omid Ghaffari, President International Real Estate Society, University of Witwatersrand South Africa                  Dr. Peterson Obeso Jumbo, University of Witwatersrand South Africa                  Are residential crimes the same? Evidence from the link between house prices and crime levels in Johannesburg / Konut suçları aynı mı? Johannesburg'teki konut fiyatları ve suç seviyeleri arasındaki bağlantıdan elde edilen kanıtlar</p> <p>Dr. Burak Çetindag, Regeneration Manager, London Borough of Newham, UK                  Newham council housing delivery strategy / Newham Belediyesi Konseyi konut teslimat stratejisi</p> <p>Prof. Serhat Başdoğan, Architecture Department, Yıldız Technical University, Türkiye                  Ayvener Babacan Demirel, Architecture Department, Fatih Sultan Mehmet Vakıf University, Türkiye                  Burcu Sivgılı, Architecture Department, Yıldız Technical University, Türkiye                  Neslihan Bayraktar, Architecture Department, Yıldız Technical University, Türkiye                  Ubeydullah Yagar, Architecture Department, Yıldız Technical University, Türkiye                  Asst. Prof. İlim Ergün, Architecture Department, Yıldız Technical University, Türkiye                  A roadmap on value-based distribution models – the case of İsmetpaşa Neighborhood / Değer temelli dağıtım modeli üzerine bir yol haritası – İsmetpaşa Mahallesi örneği</p> <p>Dr. Claude Albert Mwachika Ngweni, Head, Central Africa Hub, DRC Regional Office for Africa, UN-Habitat                  Yves Constantin Iouanbo Tene, Project Assistant, UN-Habitat                  Emmanuel Iouanbo, Architect, Jomo Kenyatta University of Agriculture and Technology, Kenya                  Chinese Nguyen Kodjo, Real Estate Developer                  Low carbon and energy efficient real estates for adequate housing for all in the central Africa Region / Merkezî Afrika Bölgesi'nde herkes için yeterli konut sağlama amaçlı düşük karbonlu ve enerji verimli gayrimenkul işleri</p> <p>Prof. Mithat Arman Karaku, Harran University, Türkiye                  The role of municipalities in making housing policies in Türkiye / Türkiye'de konut politikalarında belediyelerin rolü</p>	<p><b>SESSION – VIII.B: SUSTAINABILITY, CULTURE, AND MOBILITY: THE FUTURE OF THE REAL ESTATE MARKET / SÜRDÜRÜLEBİLİRLİK, KÜLTÜR VE HAREKETLİLİK: GAYRİMENKUL PİYASASININ GELECEĞİ</b></p> <p><i>Moderator: Prof. Afroza Parvin, Khulna University, Bangladesh</i></p> <p>Eivind Markussen, Norwegian University of Science and Technology, Norway                  Prof. Aleska Temeljovc Saki, Norwegian University of Science and Technology, Norway                  Balancing sustainability in real estate: decision-making factors for renovation vs. new construction / Gayrimenkulde sürdürülebilirliği dengelemek: Yenileme ve yeni inşaat kararlarında karar verim faktörleri                  Prof. Aleska Temeljovc Saki, Norwegian University of Science and Technology, Norway                  Navigating CSR compliance: Challenges in sustainability reporting for the Norwegian real estate sector / CSRD uyum sürecini yönetmek: Norveç gayrimenkul sektöründe sürdürülebilirlik raporlamasına ilişkin zorluklar</p> <p>Loïc Huguette, Deputy Head of the Studies, Monitoring and Forecasting Department, National Federation of Sateir, France                  The identification and revitalization of abandoned land in France / Fransız da terk edilmiş arazilerin tespiti ve yeniden canlandırılması</p> <p>S. Rukayah Sultanah, The University of British Columbia, Canada                  Prof. W. Shamsul Alam, The University of British Columbia, Canada                  Prof. Behan Sadia, The University of British Columbia, Canada                  Meral Kamaç, The University of British Columbia, Canada                  Reimagining real estate: Integrating indigenous knowledge and energy-efficient design for climate-resilient homes / Gayrimenkulü yeniden tasarlamak: İklim dayanıklı evler için yerli bilgiye ve enerji verimli tasarımlar entegrasyonu</p> <p>Assoc. Prof. Olaya Perpetrisko, Association of Appraisal Organizations of Uzbekistan                  Prof. Kamal Mamathabov, Society of Appraisers, Experts and Consultants of Uzbekistan                  Peculiarities in the valuation of historical and cultural real estate / Tarihi ve kültürel gayrimenkulün değerlendirilmesinde benzersiz özellikler</p> <p>Enimnah Patel, Department of Civil and Environmental Engineering, Norwegian University of Science and Technology, Norway                  Mehdi Alizadeh, Trondheim Municipality, Trondheim, Norway                  Assoc. Prof. Swis Soharil, Department of Civil and Environmental Engineering, Norwegian University of Science and Technology, Norway                  Prof. Agnar Johnsen, Department of Civil and Environmental Engineering, Norwegian University of Science and Technology, Norway                  Prof. Aleska Temeljovc Saki, Norwegian University of Science and Technology, Norway                  Enhancing sustainable mobility through co-working offices (mode office) / Sürdürülebilir hareketliliği ortak çalışma ofisleri (mode ofis) yoluyla geliştirme</p>	
17.30 – 17.45	<p><b>Colloquium Break / Kahve Arası</b></p>		



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CONFERENCE PROGRAMI 2. GÜN / KONFERANS PROGRAMI 2. GÜN

04.02.2025 TUESDAY / SALI

15.<sup>45</sup> – 17.<sup>30</sup>  
CUSTOMISED HALL

SESSION – VIII.C: FINANCIAL OBLIGATIONS AND PROBLEMS IN FACILITY AND REAL ESTATE MANAGEMENT / TESİS VE GAYRİMENKUL YÖNETİMİNDE MALİ YÜKÜMLÜLÜKLER VE SORUNLAR

*Moderator:*

Asst. Prof. Erdem Ercan, Department of Real Estate Development and Management, Ankara University, Türkiye

Prof. Özgür Bıyan, Department of Finance, Bandırma Onyedi Eylül University

*The Status of residential and commercial real estate management and enterprises in the Turkish tax system / Türk vergi sisteminde konut ve ticari gayrimenkul yönetimi ve işletmelerinin durumu*

Ekmek Doşt, Certified Public Accountant (CPA), Independent Auditor

*The financial audit, reporting, and impacts of management enterprises / Yönetim işletmelerinin mali denetimi, raporlanması ve etkileri*

Armağan Degin, Lawyer, Real Estate and Condominium Law Specialist

*Responsibilities and key issues in management models of residential and commercial real estate / Konut ve ticari gayrimenkullerin yönetimi modellerinde sorumluluk ve temel sorunlar*

Prof. Erol Demir, Department of Real Estate Development and Management, Ankara University, Türkiye

*Accounting system and problems in facility and real estate management businesses / Tesis ve gayrimenkul yönetimi işletmelerinde muhasebe sistemi ve sorunları*

Asst. Prof. Esra Keskin, Department of Real Estate Development and Management, Ankara University, Türkiye

Prof. Harun Tanırmış, Department of Real Estate Development and Management, Ankara University, Türkiye

*Classification of facility and real estate management, addition of licensing and financial indices / Tesis ve gayrimenkul yönetimi işletmelerinin sınıflandırılması, lisanslama ve mali endekslerin geliştirilmesi*

Coffee Break / Kahve Arası

17.<sup>30</sup> – 17.<sup>45</sup>

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CONFERENCE PROGRAM 2 <sup>ND</sup> DAY / KONFERANS PROGRAMI 2. GÜN		2 / 3	
04.02.2025 TUESDAY / SALI		HAREM HALL	
BİRECİK HALL		SESSION – IX.B: URBAN INFRASTRUCTURE / KENTSEL ALTYAPU	
<p><b>SESSION – IX.A: THEORY, STANDARDS, AND APPLICATIONS OF EVALUATION / DEĞERLEME TEORİSİ, STANDARTLARI VE UYGULAMALARI</b></p> <p><i>Keynote Speaker:</i>  <i>Ibrahim Öner Gözül, Chairman, Capital Markets of Board of Türkiye</i>  <i>"Concrete real estate market and capital markets / Kurumsal gayrimenkul yatırım ve sermaye piyasaları"</i></p> <p><i>Moderator:</i>  <i>Prof. Tobias Just, IREBS &amp; Regensburg University, Germany</i></p> <p><i>Verenika Saluyova, Head of Valuation Department, National Cadastral Agency, Belarus</i>  <i>Aleks Dabidovich, National Cadastral Agency, Belarus</i>  <i>Real property transaction prices as a source for quality assurance of mass valuation in Belarus / Belarus'ta toplu değerlendirme için güvenilirlik sağlamak amacıyla gayrimenkul işlem fiyatları</i></p> <p><i>Sachin Bhattacharya, Kripa Engineering Associates Pvt. Ltd., Kathmandu District, Nepal</i>  <i>Comparative analysis of real estate valuation practices and trends across global markets: Identifying patterns and areas for improvement / Küresel pazarlar arasında gayrimenkul değerlendirme uygulamaları ve eğilimlerin karşılaştırmalı analizi: Modellerin ve iyileştirme alanlarının belirlenmesi</i></p> <p><i>Margareta Mészáros, Senior Director, Head of Valuation, CBRE, Hungary</i>  <i>The development of real estate market and property valuation in Hungary since 1990 / 1990'dan bu yana Macaristan'da gayrimenkul piyasası ve gayrimenkul değerlemesinin gelişimi</i></p> <p><i>Dr. Nikolai Trifonov, Belarussian Society of Valuers, Belarus</i>  <i>Unlocking precision: Advancements in the build-up method for capitalization rate estimation / Doğrulukta açılım: Sermaye kapalı bilanço oranı tahmin için yapı yöntemindeki ilerlemeler</i></p> <p><i>Mikael Ibrahimov, Chairman, the Chamber of Appraisers in Azerbaijan</i>  <i>Directions of The Country Strategy on WS 2025 Valuation Standards, approaches and methods updates implementation / WS 2025 değerlendirme standartları, yaklaşımlar ve yöntemlerde değişikliklerin uygulanmasına dair ülke stratejilerine yönergi</i></p> <p><i>Asst. Prof. Habtamu Bichaw Aenes, Bahir Dar University, Ethiopia</i>  <i>Establishing valuation standards for enhancing valuation profession in Ethiopia / Etiyopya'da değerlendirme mesleğinin geliştirilmesi için değerlendirme standartlarının oluşturulması</i></p> <p><i>Yapar Bahçeci, Chairman, The Turkish Association of Appraisers (TDAÜB)</i>  <i>The real estate market in Türkiye and the development of the appraisal profession / Türkiye'de gayrimenkul piyasası ve değerlendirme mesleğinin gelişimi</i></p>	<p><i>Keynote Speaker:</i>  <i>Prof. Mustafa Tuna, Former Mayor of Ankara Metropolitan Municipality, Türkiye</i>  <i>"Relationship between urban infrastructure investments and quality of life / Kentin altyapı yatırımları ve yaşam kalitesi ilişkisi"</i></p> <p><i>Moderator:</i>  <i>Prof. Gumil Kincaz, Board Member of BUSA3 Inc., Former General Manager of ASH</i>  <i>Manjot Kaur, Research Fellow, The University of British Columbia, Canada</i>  <i>Prof. Kaun Heung, The University of British Columbia, Canada</i>  <i>Prof. Itchan Saad, The University of British Columbia, Canada</i>  <i>Investigating the impacts of urban densification on buried water infrastructure performance: A case study from Vancouver / Yaşam kalitesini artırma için yoğunlaşmanın yeraltı suyu performansı üzerindeki etkilerinin incelenmesi: Bir kentsel su sistemi</i></p> <p><i>Ziher Zeynelova, The Academy of Public Administration under the President of the Republic of Azerbaijan, Azerbaijan</i>  <i>Current logistics investments: Challenges and proposals / Mevcut lojistik yatırımların: Zorluklar ve öneriler</i></p> <p><i>Dr. Dursun Ömer İhan, Department of Real Estate Development and Management, Ankara University, Türkiye</i>  <i>Place-based economic investing in Türkiye: The Perspective of civil society, local governments and academia / Türkiye'de yerel kalkınma için yatırımın, sivil toplum, yerel yönetimler ve akademinin rolü</i></p> <p><i>Dr. Bence Cedeno, Regeneration Manager, London Borough of Havering, UK</i>  <i>Community Infrastructure Levy (CIL): Unlocking local development / Topluluk Altyapı Vergisi (CAL) Yerel kalkınmayı açar mı?</i></p> <p><i>Ilay Sarınar, Faculty of Applied Science, University of British Columbia Okanagan, Canada</i>  <i>Dr. Heeroin R. Milan, Faculty of Applied Science, University of British Columbia Okanagan, Canada</i>  <i>Dr. Michael De-Coste, Faculty of Applied Science, University of British Columbia Okanagan, Canada</i>  <i>Prof. Kaun Heung, The University of British Columbia, Canada</i>  <i>Level of service-based decision support framework for drinking water systems / İçme suyu sistemleri için hizmet seviyesi temelli karar destek çerçevesi</i></p> <p><i>Luc Legrand, Deputy Head of the Studies, Monitoring and Forecasting Department, National Institute of Statistics, France</i>  <i>Rural land banking implemented by SAFER in France / Fransız'da SAFER tarafından uygulanan kırsal arazi bankacılığı</i></p>		
<p><b>SESSION – IX.A: THEORY, STANDARDS, AND APPLICATIONS OF EVALUATION / DEĞERLEME TEORİSİ, STANDARTLARI VE UYGULAMALARI</b></p> <p><i>Keynote Speaker:</i>  <i>Ibrahim Öner Gözül, Chairman, Capital Markets of Board of Türkiye</i>  <i>"Concrete real estate market and capital markets / Kurumsal gayrimenkul yatırım ve sermaye piyasaları"</i></p> <p><i>Moderator:</i>  <i>Prof. Tobias Just, IREBS &amp; Regensburg University, Germany</i></p> <p><i>Verenika Saluyova, Head of Valuation Department, National Cadastral Agency, Belarus</i>  <i>Aleks Dabidovich, National Cadastral Agency, Belarus</i>  <i>Real property transaction prices as a source for quality assurance of mass valuation in Belarus / Belarus'ta toplu değerlendirme için güvenilirlik sağlamak amacıyla gayrimenkul işlem fiyatları</i></p> <p><i>Sachin Bhattacharya, Kripa Engineering Associates Pvt. Ltd., Kathmandu District, Nepal</i>  <i>Comparative analysis of real estate valuation practices and trends across global markets: Identifying patterns and areas for improvement / Küresel pazarlar arasında gayrimenkul değerlendirme uygulamaları ve eğilimlerin karşılaştırmalı analizi: Modellerin ve iyileştirme alanlarının belirlenmesi</i></p> <p><i>Margareta Mészáros, Senior Director, Head of Valuation, CBRE, Hungary</i>  <i>The development of real estate market and property valuation in Hungary since 1990 / 1990'dan bu yana Macaristan'da gayrimenkul piyasası ve gayrimenkul değerlemesinin gelişimi</i></p> <p><i>Dr. Nikolai Trifonov, Belarussian Society of Valuers, Belarus</i>  <i>Unlocking precision: Advancements in the build-up method for capitalization rate estimation / Doğrulukta açılım: Sermaye kapalı bilanço oranı tahmin için yapı yöntemindeki ilerlemeler</i></p> <p><i>Mikael Ibrahimov, Chairman, the Chamber of Appraisers in Azerbaijan</i>  <i>Directions of The Country Strategy on WS 2025 Valuation Standards, approaches and methods updates implementation / WS 2025 değerlendirme standartları, yaklaşımlar ve yöntemlerde değişikliklerin uygulanmasına dair ülke stratejilerine yönergi</i></p> <p><i>Asst. Prof. Habtamu Bichaw Aenes, Bahir Dar University, Ethiopia</i>  <i>Establishing valuation standards for enhancing valuation profession in Ethiopia / Etiyopya'da değerlendirme mesleğinin geliştirilmesi için değerlendirme standartlarının oluşturulması</i></p> <p><i>Yapar Bahçeci, Chairman, The Turkish Association of Appraisers (TDAÜB)</i>  <i>The real estate market in Türkiye and the development of the appraisal profession / Türkiye'de gayrimenkul piyasası ve değerlendirme mesleğinin gelişimi</i></p>	<p><b>SESSION – IX.B: URBAN INFRASTRUCTURE / KENTSEL ALTYAPU</b></p> <p><i>Keynote Speaker:</i>  <i>Prof. Mustafa Tuna, Former Mayor of Ankara Metropolitan Municipality, Türkiye</i>  <i>"Relationship between urban infrastructure investments and quality of life / Kentin altyapı yatırımları ve yaşam kalitesi ilişkisi"</i></p> <p><i>Moderator:</i>  <i>Prof. Gumil Kincaz, Board Member of BUSA3 Inc., Former General Manager of ASH</i>  <i>Manjot Kaur, Research Fellow, The University of British Columbia, Canada</i>  <i>Prof. Kaun Heung, The University of British Columbia, Canada</i>  <i>Prof. Itchan Saad, The University of British Columbia, Canada</i>  <i>Investigating the impacts of urban densification on buried water infrastructure performance: A case study from Vancouver / Yaşam kalitesini artırma için yoğunlaşmanın yeraltı suyu performansı üzerindeki etkilerinin incelenmesi: Bir kentsel su sistemi</i></p> <p><i>Ziher Zeynelova, The Academy of Public Administration under the President of the Republic of Azerbaijan, Azerbaijan</i>  <i>Current logistics investments: Challenges and proposals / Mevcut lojistik yatırımların: Zorluklar ve öneriler</i></p> <p><i>Dr. Dursun Ömer İhan, Department of Real Estate Development and Management, Ankara University, Türkiye</i>  <i>Place-based economic investing in Türkiye: The Perspective of civil society, local governments and academia / Türkiye'de yerel kalkınma için yatırımın, sivil toplum, yerel yönetimler ve akademinin rolü</i></p> <p><i>Dr. Bence Cedeno, Regeneration Manager, London Borough of Havering, UK</i>  <i>Community Infrastructure Levy (CIL): Unlocking local development / Topluluk Altyapı Vergisi (CAL) Yerel kalkınmayı açar mı?</i></p> <p><i>Ilay Sarınar, Faculty of Applied Science, University of British Columbia Okanagan, Canada</i>  <i>Dr. Heeroin R. Milan, Faculty of Applied Science, University of British Columbia Okanagan, Canada</i>  <i>Dr. Michael De-Coste, Faculty of Applied Science, University of British Columbia Okanagan, Canada</i>  <i>Prof. Kaun Heung, The University of British Columbia, Canada</i>  <i>Level of service-based decision support framework for drinking water systems / İçme suyu sistemleri için hizmet seviyesi temelli karar destek çerçevesi</i></p> <p><i>Luc Legrand, Deputy Head of the Studies, Monitoring and Forecasting Department, National Institute of Statistics, France</i>  <i>Rural land banking implemented by SAFER in France / Fransız'da SAFER tarafından uygulanan kırsal arazi bankacılığı</i></p>		
<p>17.45 – 19.30</p>	<p>19.30 – 21.00</p>		
ICREDM Reception : N04 Restaurant / Wyndham Ankara Hotel			



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CONFERENCE PROGRAM 2<sup>ND</sup> DAY / KONFERANS PROGRAMI 2. GÜN

04.02.2025 TUESDAY / SALI

CUSTOMISED HALL

SESSION – I.C: FACILITY, REAL ESTATE, AND ASSET MANAGEMENT / TESİS, GAYRİMENKUL VE VARLIK YÖNETİMİ

Moderator:

Asst. Prof. Şihad Canaz Sevgen, Ankara University, Türkiye

Prof. Yeter Demir Uslu, İstanbul Medipol University, Türkiye

Res. Asst. Keşer Şahin, İstanbul Medipol University, Türkiye

Res. Asst. Büşra Sevim, İstanbul Medipol University, Türkiye

*Adaptation process of health facilities to climate change: An evaluation with the AHP method / Sağlık tesislerinin iklim değişikliğine uyum süreci: AHP yöntemi ile bir değerlendirme*

Asst. Prof. Emre Yılmaz, İstanbul Medipol University, Türkiye

Res. Asst. Büşra Sevim, İstanbul Medipol University, Türkiye

Prof. Yeter Demir Uslu, İstanbul Medipol University, Türkiye

Res. Asst. Keşer Şahin, İstanbul Medipol University, Türkiye

*Energy efficiency in healthcare facilities: An AHP-based approach for operational solutions / Sağlık tesislerinde enerji verimliliği: operasyonel çözümler için AHP tabanlı bir yaklaşım*

Havva Nur Şirin, İstanbul Technical University, Türkiye

*Research on indoor area logistics services in large-scale (mega) real estate: Autonomous system solutions in city hospitals logistics / Büyük ölçekli (mega) gayrimenkullerde kapalı alan lojistik hizmetleri üzerine araştırma: Şehir hastaneleri lojistikinde otonom sistem çözümleri*

Dr. Salih Demirkaya, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

Prof. Harun Tanırmış, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

*Evaluation of office design parameters in terms of developer and building managers: The case of Ankara province / Ofis tasarım parametrelerinin değerlendirilmesi ve bina yöneticileri açısından değerlendirilmesi: Ankara ili örneği*

Asst. Prof. Esra Keskin, Department of Real Estate Development and Management, Ankara University, Türkiye

Res. Asst. Emine Baydan, Department of Real Estate Development and Management, Ankara University, Türkiye

Prof. Yeşin Tanırmış, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

Prof. Harun Tanırmış, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

*Quality management systems and accreditation practices in higher education institutions: Awareness and satisfaction analysis / Yükseköğretim kurumlarında kalite yönetim sistemleri ve akreditasyon uygulamaları: Farkındalık ve memnuniyet analizi*

ICREDM Reception : No4 Restaurant / Wyndham Ankara Hotel

19.30 – 21.00



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CONFERENCE PROGRAMI 3. GÜN / KONFERANS PROGRAMI 3. GÜN

05.02.2025 WEDNESDAY / ÇARŞAMBA

**BİRECİK HALL**

**SESSION – X.A: CLIMATE POLICY / İKLİM SİYASETİ**

**HAREM HALL**

**SESSION – X.B: DIGITALIZATION AND TECHNOLOGICAL SOLUTIONS / DİJİTALLEŞME VE TEKNOLOJİ ÇÖZÜMLERİ**

**Keynote Speaker:**  
**Prof. Rüsen Keleş**, Ankara University, Türkiye  
*"Urban development, sustainability and climate change politics / Kentsel gelişme, sürdürülebilirlik ve iklim değişikliği politikaları"*

**Moderator:**  
**Dr. Enis Yeter**, Ankara University, Türkiye

**Prof. Kasım Yenigün**, Director General, General Directorate of Combating Desertification and Erosion, Ministry of Environment, Urbanization, and Climate Change, Türkiye  
*"Sink management studies in line with net zero emission targets / Net sıfır emisyon hedefleri doğrultusunda yutak alan yönetimi çalışmaları"*

**Hakkı Şahin Yağız**, Deputy Director General, General Directorate of Environmental Management, Ministry of Environment, Urbanization, and Climate Change, Türkiye  
*"Climate change adaptation strategies of municipalities / Belediyelerin iklim değişikliğine uyum stratejileri"*

**Hasan Çağlayan Dündar**, Advisor to the President, The Union of Chambers and Commodity Exchanges of Türkiye (TOBB), Türkiye  
*"Industry 4.0 in the fight against climate change / İklim değişikliği ile mücadelede Sanayi 4.0"*

**Prof. Halil Hasar**, Climate Change President, The Directorate of Climate Change, Ministry of Environment, Urbanization and Climate Change, Türkiye  
*"Türkiye's climate change policies / Türkiye'nin iklim değişikliği politikaları"*

**Prof. Abdülmetin Turan**, Ankara University, Türkiye  
*"International developments in climate politics and Türkiye's climate diplomacy / İklim siyasetinde uluslararası gelişmeler ve Türkiye'nin iklim diplomasisi"*

10.45 – 11.00  
 Coffee Break / Kahve Arası

**Keynote Speaker:**  
**Kudret Türk**, CEO, Asiyon Information Systems Inc.  
*"Development of the facility and real estate software and technologies market / Tesis ve gayrimenkul yazılımın ve teknolojilerin pazarının gelişimi"*

**Moderator:**  
**Assoc. Prof. Abukar Warsame**, Department of Real Estate and Construction Management, Royal Institute of Technology (KIT), Sweden

**Dr. Yulija S. Davidiuk**, Brest State Technical University, Brest, Belarus  
**Dr. Nataliya P. Yalovaya**, Brest State Technical University, Brest, Belarus  
*"Diagnostic map of rapid parameters for calculation of physical repair in determining the degree of physical wear of the building / Brest'teki binaların fiziksel yıpranma derecesini belirlemek için hızlı parametrelerin hesaplanması"*

**Prof. Arleika Temeljkovalj Salaj**, Norwegian University of Science and Technology, Norway  
*"Focus on innovation in academic environment / Akademik ortamda inovasyona odaklanma"*  
**Myungs-Cheol Shin**, Korea-Saudi Arabia Industrial and Trade Association, South Korea  
*"Policies on real estate transaction policy in Smart City Era: Focusing on cases in Korea / Akıllı Şehir Çağında gayrimenkul işlem politikasına ilişkin politikalar: Kore örneklerine odaklanma"*

**Aleksandr Malyuchenka**, Reaching LLC, Belarus  
**Dr. Nikolai Trifonov**, Reaching LLC, Belarus  
**Elena Khoshko**, Reaching LLC, Belarus  
*"Reaching as an example of digitalization technology in international real estate market / Uluslararası gayrimenkul pazarında dijitalleşme teknolojilerine bir örnek olarak Reaching"*

**Asist. Prof. Bania Aburamadan**, School of Architecture, Applied Science University, Jordan  
*"Integrating social dimensions and digital technologies in the conservation of traditional architectural heritage: The case of Ak-Salt, Jordan / Geleneksel mimari mirasın korunmasında sosyal boyutların ve dijital teknolojilerin entegrasyonu: Ürdün Ak-Salt örneği"*

**Turdilbekov Yusuf Ibragimovich**, Head of Department, Samarkand State University of Architecture and Civil Engineering, Samarkand, Uzbekistan  
*"Smart city" as an innovation project / İnovasyon projesi olarak "Akıllı Kent"*  
**Lect. Emir Sungurov**, Department of Real Estate Development and Management, Ankara University, Türkiye  
**Prof. Yeşim Tannırmış**, Department of Real Estate Development and Management, Ankara University, Türkiye  
*"Development of a capability maturity model for digital transformation of facility management businesses / Tesis yönetimi işletmelerinin dijital dönüşümü için bir yetkinlik olgunluk modeli geliştirilmesi"*

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CONFERENCE PROGRAM 3<sup>RD</sup> DAY / KONFERANS PROGRAMI 3. GÜN

05.02.2025 WEDNESDAY / ÇARŞAMBA

09.<sup>00</sup> – 10.<sup>45</sup>

### CUSTOMISED HALL

#### SESSION – X.C. ACCESSIBILITY AND SUSTAINABILITY IN THE REAL ESTATE AND CONSTRUCTION SECTOR / GAYRİMENKUL VE İNŞAAT SEKTÖRÜNDE ERİŞİLEBİLİRLİK VE SÜRDÜRÜLEBİLİRLİK

##### Moderator:

Assoc. Prof. **Nazide Gülbay Yığıteli**, Ankara University, Türkiye  
Res. Asist. **Parla Güneş**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye  
Prof. **Yeşim Tanrıvermiş**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye  
Prof. **Rehan Sadıq**, The University of British Columbia, Canada  
Prof. **Harun Tanrıvermiş**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

**Cognitive map production in the context of topophilia theory and its relationship with real estate markets: A case study of Beyoğlu District / Topoofil teorisi bağlamında bilişsel harita üretimi ve gayrimenkul piyasalarıyla ilişkisi: Beyoğlu ilçesi örneği**

**Çağla Dalkıran**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye  
Prof. **Yeşim Tanrıvermiş**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye  
**Social housing approach inspection of the affordable housing / Sosyal konut anlayışında kiralanabilir konutun incelenmesi**

**Sıla Nazile Tunçbilek**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye  
Prof. **Harun Tanrıvermiş**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye  
Prof. **Yeşim Tanrıvermiş**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

**An examination of local governments and their legal entities within local governments in solving the problem of housing accessibility / Konutta erişilebilirlik sorununun çözümünde yerel yönetimler ve şirketlerini incelenmesi**

**Uğur Şen**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

**Prof. Furkan Başer**, Department of Actuarial Science, Ankara University, Türkiye

**Prof. F. Nihan Özdemir Sönmez**, Department of Real Estate Development and Management, Ankara University, Türkiye  
**Determination of office rents by machine learning methods: The case of Ankara province / Ofis kiralarının makine öğrenmesi yöntemleriyle belirlenmesi: Ankara ili örneği**

**Dr. Yunus Emre Kapuuz**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

**Dr. Üskün Hatipoğlu**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

**Prof. Harun Tanrıvermiş**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

**An examination of developments in the construction and real estate sectors within the scope of macroeconomic variables / İnşaat ve gayrimenkul sektörlerindeki gelişmelerin seçili makroekonomik değişkenler çerçevesinde incelenmesi**

Coffee Break / Kahve Arası

10.<sup>45</sup> – 11.<sup>00</sup>

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CONFERENCE PROGRAMI 3<sup>RD</sup> GÜN / KONFERANS PROGRAMI 3. GÜN

05.02.2025 WEDNESDAY / ÇARŞAMBA

**BİRECİK HALL**  
**SESSION – XI.A: REAL ESTATE MARKETS AND TAXATION SYSTEMS /**  
**GAYRİMENKUL PİYASALARI VE VERGİLENDİRME SİSTEMLERİ**

**Keynote Speaker:**  
**Dr. İsmail İlhan Hatipoğlu, Deputy Minister, the Ministry of Treasury and Finance, Türkiye**  
**"Real estate capital revenue and rental monitoring system / Governmental sermaye iradi ve kira takip sistemi"**

**Moderator:**

**Prof. Selma Aydın, Ankara Hacı Bayram Veli University, Türkiye**  
**Information gathering for local property taxation - the UK experience / Yeri emlak bilgileri toplama için yerel emlak vergisi: Birleşik Krallık deneyimi**

**Prof. Hüsnü Tanrıvermiş, Ankara University, Türkiye**

**Asst. Prof. Yeşim Tanrıvermiş, Ankara University, Türkiye**

**Asst. Prof. Mansurat Ayojimi Salami, Department of Real Estate Development and Management, Ankara University, Türkiye**

**Contribution of carbon tax policy towards achieving environmental real estate practices: Bibliometric analysis / Karbon vergisi politikasının çevresel gayrimenkul uygulamalarına katkıları: Bibliyometrik analiz**

**Assoc. Prof. Patrick H. Bond, University of London, UK**  
**UK real estate taxation: A comparative analysis of the UK and other countries / Birleşik Krallık yerel emlak vergilerinin diğer ülkelerle karşılaştırılması**

**Prof. Nikolay Volovich, Tomsk State University, Tomsk, Russian Federation**  
**Reforms of the real estate taxation system in central Asian countries / Orta Asya ülkelerinde gayrimenkul vergilelendirme sisteminde reformlar**

**Prof. Gastone Ave, University of Ferrara, Italy**  
**Assoc. Prof. Francesco Alberti, University of Bergamo, Italy**  
**An analysis of the fiscal incentives in the real estate sector and urban planning in Italy in the last 100 years / İtalya'da gayrimenkul sektöründe ve şehir planlamasında son 100 yılın mali teşvikleri analizi**

**Asylbek Seriyalidov, Head, The State Agency for Land Resources, Cadastre, Geodesy and Cartography under the Cabinet of Ministers of the Kyrgyz Republic, Kyrgyzstan**  
**Iskander Makhmedov, AICV, Chairman, Kyrgyzstan**  
**Oleg Molodtshin, AICV, Head of the Scientific and Technical Council, Russia**  
**Almaz Arslanov, AICV, Head of Department of International Affairs, Russia**

**International experience in the application of cadastral value for tax purposes: Results of the pilot cadastral assessment project in the Kyrgyz Republic / Vergi amaçlı katma değerlerin uygulanmasında uluslararası deneyim: Kırgız Cumhuriyetindeki pilot katma değerleme değerlendirme programı sonuçları**

12.45 – 13.45

Lunch Break / Öğle Yemeği

**HAREM HALL**  
**SESSION – XI.B: DISASTERS AND THEIR REFLECTIONS ON REAL ESTATE**  
**MARKETS / AFETLER VE GAYRİMENKUL PİYASALARINA YANSIMALARI**

**Keynote Speaker:**  
**Emine Feray Seçgin, Chairman, Turkish Catastrophe Insurance Pool (The TCP / DASK), Türkiye**  
**"Disasters and real estate market / Afetler ve gayrimenkul piyasası"**

**Moderator:**

**Prof. Recep Mik, Ankara University, Türkiye**  
**Assoc. Prof. Yuen Leng Chow, International University of Japan, Japan**  
**Impact of floods on residential land prices in Tokyo, Japan / Tokyo, Japonya'da sel baskınlarının konut arazi fiyatlarına etkisi**

**Asst. Prof. Solomon Dargie Chekolé, Bahir Dar University, Institute of Land Administration, Bahir Dar, Ethiopia, Namba University of Science and Technology (NUST), Faculty of Engineering and Built Environment, Addis Ababa and Spatial Sciences Institute, Addis Ababa**  
**Land sector conflicts and urban land management systems in Hawassa City, Ethiopia / Araziye ilgili çatışmalar ve kentler arazi yönetimi: Hawassa Şehri, Etiyopya'daki arazi yönetimi sistemlerinin değerlendirilmesi**

**Assoc. Prof. Duygu Erten, Department of Real Estate Development and Management, Ankara University, Türkiye**  
**A comparative analysis of YES-TR New Buildings & LEVEL(S) / YES-TR yeni binalar ve LEVEL(S) performansını karşılaştırılması analizi**

**Assoc. Prof. Mubarriz Mammadli, Azerbaijan State University of Economics, Azerbaijan**  
**Real estate policy: Disaster risk and state regulation / Gayrimenkul politika: Afet riski ve devlet düzenlemesi**

**Mouatane Abouli, Citimor SA, for Integrated Territorial Planning and Smart Cities, Mohammed VI Polytechnic University (UM6P), Morocco**  
**Prof. Mohamed El Ghoul, for Integrated Territorial Planning and Smart Cities, Mohammed VI Polytechnic University (UM6P), Morocco**  
**Prof. Kh. Md. Nahiduzzaman, Citimor SA, for Integrated Territorial Planning and Smart Cities, Mohammed VI Polytechnic University (UM6P), Morocco**  
**Urban territorial resilience in towns out: Pondering on planning deficiencies and challenges / Towns out'ta kentler bölgesel dayanıklılık: Planlama yetersizlikleri ve zorluklar üzerine değerlendirme**

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11.00 – 12.45	<b>CUSTOMISED HALL</b> <b>SESSION – XI.C: INNOVATION AND SUSTAINABLE SOLUTIONS IN REAL ESTATE AND URBAN DEVELOPMENT / GAYRİMENKUL VE KENTSEL GELİŞİMDE İNOVASYON VE SÜRDÜRÜLEBİLİR ÇÖZÜMLER</b> <b>Moderator:</b> <i>Dr. Duygu Erten, Ankara University, Türkiye</i> <b>Dr. Mehmet Ülger</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye <b>Yağmur Özdemir</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye <b>BIM applications in infrastructure projects in Türkiye: current status, challenges and development potential / Türkiye’de altyapı projelerinde Yapı Bilgi Modellemesi (BIM) uygulamaları: Mevcut durum, karşılaşılan zorluklar ve gelişim potansiyeli</b> <b>Dr. Sevilay Dinçer</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye <b>Mehmet Salih Kirgılı</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye <b>Prof. Yeşin Tanırmış</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye <b>The effects of climate change on Ankara’s urban transportation and evaluation of making urban transportation resistant to climate change / İklim değişikliğinin Ankara’nın kent içi ulaşımına olan etkilerinin ve kent içi ulaşımın iklim değişikliğinde dirençli hale getirilmesinin değerlendirilmesi</b> <b>Prof. Harun Tanırmış</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye <b>Res. Asist. Emine Baydan</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye <b>The applicability of sentiment analysis in transit-oriented development (TOD) studies / Transit odaklı geliştimeye (TOD) yönelik çalışmalarda duygu analiziinin uygulanabilirliğinin değerlendirilmesi</b> <b>Dr. H. Handan Yücel Yıdırım</b> , Department of Real Estate Development and Management, Ankara University, Türkiye <b>Prof. Harun Tanırmış</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye <b>Development of a roadmap proposal for energy efficient urban planning and design and opportunities for integration into real estate development projects / Enerji etkin kentsel planlama ve tasarımı ilişkin yol haritası önerisinin geliştirilmesi ve gayrimenkul geliştirme projelerine entegrasyonu olanakları</b> <b>Mehmet Salih Kirgılı</b> , Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye <b>Prof. Mustafa Tombul</b> , Department of Real Estate Development and Management, Faculty of Applied Sciences, Ankara University, Ankara, Türkiye <b>Evaluation of high-rise buildings in Ankara within the scope of energy efficiency and energy use / Ankara’da yüksek yapıların enerji verimliliği ve enerji kullanım kapasitelerinde değerlendirilmesi</b>
12.45 – 13.45	Lunch Break / Öğle Yemeği



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<p><b>BİRECİK HALL</b></p> <p><b>SESSION – XII.A: 6 FEBRUARY 2023 KAHRAMANMARAŞ EARTHQUAKES AND THE RECONSTRUCTION PROCESS / 6 ŞUBAT 2023 KAHRAMANMARAŞ DEPREMLERİ VE YENİDEN İNŞA SÜRECİ</b></p> <p><i>Moderator:</i>  <b>Prof. Mustafa Tuna</b>, Former Mayor of Ankara Metropolitan Municipality &amp; Ankara University, Türkiye</p> <p><b>Murat Akbıngöç</b>, Deputy General Director, General Directorate of Construction Affairs, Ministry of Environment, Urbanization and Climate Change, Türkiye  <i>6th February earthquakes and aftermath / 6 Şubat Depremleri ve sonrası</i></p> <p><b>Elif Bağ</b>, Head, Department of Site Selection and Spatial Planning, Disaster and Emergency Management Authority (MFAU), Türkiye  <i>Management of damage assessment and eligibility processes / Hasar tespit ve hak sahipliği süreçlerinin yönetimi</i></p> <p><b>Baru Adnan</b>, General Director of Vocational Services, Ministry of Environment, Urbanization and Climate Change, Türkiye  <i>Urban facility management / Kentisel tesis yönetimi</i></p> <p><b>Hakkı Alp</b>, Head of Infrastructure and Urban Transformation Service, Ministry of Environment, Urbanization and Climate Change, Türkiye  <i>Urban regeneration models in Türkiye / Türkiye'de kentsel dönüşüm modelleri</i></p> <p><b>Mustafa Levent Sungur</b>, The President of the Housing Development Administration, Ministry of Environment, Urbanization and Climate Change, Türkiye  <i>Mass housing applications / Toplu konut uygulamaları</i></p>		<p><b>HAREM HALL</b></p> <p><b>SESSION – XII.B: URBAN DEVELOPMENT AND LAND MANAGEMENT / KENTSEL GELİŞİME VE ARAZİ YÖNETİMİ</b></p> <p><i>Moderator:</i>  <b>Prof. Dr. Tilkay Tülek</b>, Ankara University &amp; Former Rector of Karadeniz Technical University, Türkiye</p> <p><b>Geoffrey Payne</b>, Geoffrey Payne and Associates, London, UK  <i>The role of land pooling as a means of promoting equitable and efficient urban land development / Kentisel arazi paylaşımı ept ve verimli bir şekilde sağlanmanı bir yolu olarak arazi yeniden düzenlenmesinin rolü</i></p> <p><b>Genes Sakinbayev</b>, University of Kassel, Germany</p> <p><b>Prof. Uwe Althoff</b>, University of Kassel, Germany</p> <p><b>Geoffrey Payne</b>, Geoffrey Payne and Associates, London, UK  <i>Trading urban regeneration and liveability in Ankara through individual narratives / Ankara'da kentsel dönüşüm ve yaşanabilirliği bir arada anlatılabilir mi?</i></p> <p><b>Geoffrey Payne</b>, Geoffrey Payne and Associates, London, UK  <i>An assessment of the role of communities in the provision of urban housing / Kentisel konut sağlanmasında toplulukların rolünün değerlendirilmesi</i></p> <p><b>Asst. Prof. İbrahim Ahmed</b>, University Mohamed VI Polytechnic, Morocco</p> <p><b>Prof. Kh. Md. Nabiluzzaman</b>, Chirros SA for Integrated Territorial Planning and Smart Cities, Mohammed VI Polytechnic University (UM6P), Morocco  <i>Evaluating the interconnections of indigenous agriculture and land-use systems for the sustainable development: A case study in the Southern Moroccan Sahara / Sürdürülebilir kalkınma için yerli tarım ve arazi kullanım sistemlerinin birbirleriyle ilişkilerinin değerlendirilmesi: Güney Fas Sahra'sında bir örnek</i></p> <p><b>Asst. Prof. Mervecan Aygünli Samsak</b>, Department of Real Estate Development and Management, Ankara University, Türkiye</p> <p><b>Prof. E. Nihan Özbekir-Sönmez</b>, Department of Real Estate Development and Management, Ankara University, Türkiye  <i>Turkish housing affordability from the perspective of shift in sales of housing financing mode and construction cost index / Konut finansmanı modünün değişim ve ipotek maliyet endeksi perspektifinden Türkiye'de konut erişilebilirliği</i></p> <p><b>Pablo Molina</b>, J&amp;A Garrigues, SLP, Spain</p> <p><b>Miquel Morell</b>, PROMOACSA, Spain  <i>A nightmare or a dream: Brownfield development in the heart of the dense city / Bir kabus mu yoksa bir rüya mı: Yoğun şehir merkezinde eski alan geliştirme</i></p>	
<p>15.<sup>30</sup> – 15.<sup>45</sup></p> <p><b>Coffee Break / Kahve Arası</b></p>		<p>24</p>	



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**CUSTOMISED HALL**

**SESSION – XII.C: REAL ESTATE MANAGEMENT AND SUSTAINABLE SOLUTIONS: LEGAL, FISCAL, AND ENVIRONMENTAL DIMENSIONS / HUKUKİ, VERGİSEL VE ÇEVRESEL BOYUTLARIYLA GAYRİMENKUL YÖNETİMİ VE SÜRDÜRÜLEBİLİR ÇÖZÜMLER**

**Moderator:**

**Prof. Kürsat Yalçınar**, Hacı Bayram Veli University, Türkiye

**Cevdet Kılıç**, Regional Manager, General Directorate of Land Registry and Cadastre, Türkiye

**Prof. Oytun Meçk**, Faculty of Economics and Administrative Sciences, Eskişehir Osmangazi University, Türkiye

**Vertical and spatial ownership approach for new types of real estate: inadequacies of the legislation and solutions / Yeni tip taşınmazlar için dikey ve uzaysal mülkiyet yaklaşımı: Mevzuatın yetersizlikleri ve çözüm önerileri**

**Dr. Emrullah Töremen**, Directorate General for Local Authorities, Republic of Türkiye Ministry of Environment, Urbanization and Climate Change, Türkiye

**Prof. Erol Demir**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

**An evolution of the approaches of housing producing and selling businesses towards tax and legal liabilities / Konut üretren ve satarı işletmelerin vergi ve yasal yükümlülüklerine karşı yaklaşımlarına ilişkin bir değerlendirme**

**Sümeyra Uslu**, Lawyer, Sultanbeyli Municipality Legal Affairs Directorate, Türkiye

**Aydın Güven Terzioğlu**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

**Prof. Harun Tannavermis**, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye

**Real estate sales made by public administrations based on user determination and the problem of cancellation of the transaction / Kamu idarelerinden kullanıcı tespitine dayalı olarak yapılan taşınmaz satışları ve işlemin iptali sorunu**

**Günhan Aygün**, Director of Donation Operations Management, Türk Kızılayı, Türkiye

**Sustainability in real estate donations: challenges faced by civil society organizations and solution proposals / Gayrimenkul bağışçılığında sürdürülebilirlik: Sivil toplum kuruluşlarının karşılaştığı engeller ve çözüm önerileri**

**Sustainability in real estate donations: challenges faced by civil society organizations and solution proposals / Gayrimenkul bağışçılığında sürdürülebilirlik: Sivil toplum kuruluşlarının karşılaştığı engeller ve çözüm önerileri**

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Coffee Break / Kahve Arası

15.30 – 15.45

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<b>SESSION – XIII.A: HOUSING ECONOMICS AND POLICIES / KONUT EKONOMİSİ VE POLİTİKALARI</b> 15. <sup>45</sup> – 17. <sup>30</sup>	<b>SESSION – XIII.B: CURRENT SITUATION AND IMPROVEMENT IN FACILITY AND REAL ESTATE MANAGEMENT IN TÜRKİYE / TÜRKİYEDE TESİS VE GAYRİMENKUL YÖNETİMİNİN MEVCUT DURUMU VE GELİŞTİRİLMESİ</b>
<b>BİRECİK HALL</b>	<b>Moderator:</b> Prof. Yeşim Tanırmış, Ankara University, Türkiye Banu Aslan, General Director of Vocational Services, Ministry of Environment, Urbanization and Climate Change, Türkiye <i>Current situation and development trends in built environment management in Türkiye / Türkiye’de yapıtl çevre yönetiminde mevcut durum ve gelişme eğilimleri</i>
<b>Moderator:</b> Prof. Muharem Önen, Dean, Faculty of Law, Ankara University, Türkiye Prof. Selvaem Akışek Ocal, TED University, Türkiye <i>The contractor’s liability due to defective construction in construction contracts / İnşaat sözleşmelerinde ayıplı yapı sebebiyle yüklenicinin sorumluluğu</i>	<b>Moderator:</b> Nihan Gâneli, Lawyer <i>Real estate and condominium law and practices / Gayrimenkul ve kat mülkiyeti hukuku ve uygulamaları</i>
<b>Dr. Uluk Poyraz, Complutense University of Madrid, Spain</b> <i>Planning and housing policies in TRNC / KKTC’de planlama ve konut politikaları</i>	<b>Ozan Önen, President, Professional Facility Managers Association-PTMD</b> <i>Occupational health and safety needs and practices in facilities / Tesislerde iş sağlığı ve güvenliği ihtiyacı ve uygulamaları</i>
<b>Dr. Ufuk Poyraz, Complutense University of Madrid, Spain</b> <i>From greenland to high-rise: Transformations of daily life and community dynamics in Ankara’s Araplar Neighbourhood / Gecekondundan yüksek katlıya: Ankara’nın Araplar Mahallesi’nde günlük hayat ve topluluk dinamiklerinin dönüşümü</i>	<b>Yahya Sağır, Founding President, Facility Managers Federation (TEYED), President, Facility Managers and Confederation (TESKON)</b> <i>Businesses in the field of facility management, the need for institutionalization and licensing studies / Tesis yönetimi alanında işletmeler, kurumsallaşma ve lisanslama çalışmaları ihtiyacı</i>
<b>Aydın Güven Tertliçli, Ankara University, Ankara, Türkiye</b> <b>Prof. Hanım Tanırmış, Ankara University, Ankara, Türkiye</b> <i>Value-based zoning implementation possibilities and conditions for success in Turkish cities / Türkiye kentlerinde değer esaslı imar uygulaması olanakları ve başarı koşulları</i>	<b>Süleyman Güreşeldi, President, Facility Management and Suppliers Federation (TYTFED)</b> <i>Institutionalization and licensing activities functioning in the field of facility management / Tesis yönetimi alanında faaliyet gösteren kuruluşların kurumsallaşma ve lisanslama faaliyetleri</i>
<b>Tevfik Türel, Türel &amp; Partners Real Estate Development Services Ltd., Türkiye</b> <i>Is it time to buy in the Istanbul housing market? / İstanbul konut piyasası: Alma zamanı mı?</i>	
<b>Prof. Wan Zahari bin Wan Yusoff, Universiti Tun Hussein Onn Malaysia</b> <b>Johny bin Boongitani, Universiti Tun Hussein Onn Malaysia, Malaysia</b> <b>Prof. Ali Pansa, Westminster Business School, University of Westminster, UK</b> <i>Challenges and opportunities in developing an infrastructure asset management framework for local authorities in Sabah / Sabah’lık yerel yönetimler için bir altyapı varlık yönetimi çerçevesi geliştirmede karşılaşılan zorluklar ve fırsatlar</i>	
<b>17.<sup>30</sup> – 17.<sup>45</sup></b>	<b>17.<sup>30</sup> – 17.<sup>45</sup></b>
<b>Coffee Break / Kahve Arası</b>	<b>Coffee Break / Kahve Arası</b>



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SESSION – XIII.C: PERSPECTIVES ON SUSTAINABLE DISASTER MANAGEMENT, URBAN TRANSFORMATION, AND THE GREEN ECONOMY /  
SÜRDÜRÜLEBİLİR ARAÇ YÖNETİMİ, KENTSEL DÖNÜŞÜM VE YEŞİL EKONOMİ PERSPEKTİFLERİ

Moderator:

Assoc. Prof. Etilaf Kandıllı Gökler, Ankara University, Türkiye

Dr. Osman Yıldız, Director General of Agricultural Reform of the Republic of Türkiye Ministry of Agriculture and Forestry, Türkiye  
*Nitrate pollution in agricultural production: an analysis in the case of Türkiye / Tarımsal üretimde nitrat kirliliği: Türkiye örneğinde bir analiz*

Mehmet İzerdem, Department of Real Estate Development and Management, Ankara University, Türkiye  
Prof. Mustafa Tombul, Department of Real Estate Development and Management, Ankara University, Türkiye  
*Utilizing shopping malls for post-disaster housing in Türkiye / Türkiye de afet sonrası barınma için alışveriş merkezlerinden yararlanma*

Berna Görçü, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye  
Prof. Yeşim Tanrıvermiş, Department of Real Estate Development and Management, Ankara University, Türkiye  
*Process management of mortgaged properties damaged in earthquake / Depremde hasar gören ipotekli taşınmazların süreç yönetimi*

Dr. Gülnaz Şengül Güneş, Department of Real Estate Development and Management, Ankara University, Türkiye  
Res. Asist. Parla Güneş, Department of Real Estate Development and Management, Ankara University, Türkiye  
Prof. Yeşim Tanrıvermiş, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye  
*Social resilience in the context of sustainable spaces: The case of the Ataevler Neighborhood in Bursa / Sürdürülebilir mekanlar bağlamında toplumsal dirençlilik ve Bursa Ataevler Mahallesi*

Sıla Nazile Tunççilek, Department of Real Estate Development and Management, Ankara University, Ankara, Türkiye  
Prof. Nuri Semih Öz, Department of Economics, Faculty of Political Sciences, Ankara University, Türkiye  
*Examination of the legal framework for the evaluation of expenditure contribution fees within the scope of the subscription agreement / Harcamalara katılım paylarının abonelik sözleşmesi kapsamında değerlendirilmesinin hukuki analizi*

Coffee Break / Kahve Arası

17.30 – 17.45

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<b>BİRECİK HALL</b>	<b>HAREM HALL</b>
<b>SESSION – XIV.A: REAL ESTATE TECHNOLOGIES AND ARTIFICIAL INTELLIGENCE / GAYRİMENKUL TEKNOLOJİLERİ VE YAPAY ZEKÂ</b>	<b>SESSION – XIV.B: SUSTAINABLE DEVELOPMENT AND ENERGY EFFICIENCY / SÜRDÜRÜLEBİLİR KALKINMA VE ENERJİ VERİMLİLİĞİ</b>
<b>Moderator:</b> Prof. Mehmet Serdar Gözet, Director, Artificial Intelligence Institute, Department of Computer Engineering, Ankara University, Türkiye	<b>Moderator:</b> Prof. Kh. Md Nohuduzzaman, Chairman of Integrated Territorial Planning and Smart Cities, Mohammed VI Polytechnic University (UM6P), Morocco
Dr. Ozan Evliyeva, Mathematics, University of Edinburgh, Scotland Bosphorus AI Artificial Intelligence and Information Technologies Inc., Ankara, Türkiye Dr. Ezzü Awa, Bosphorus AI Artificial Intelligence and Information Technologies Inc., Ankara, Türkiye <b>Big data analytics in real estate technologies / Gayrimenkul teknolojilerinde büyük veri analitiği</b>	Ensan Ahmed Mahmoud Alwanishi, Civil Engineering Department, Hasan Aliyevci University, Türkiye Prof. Emrullah Khasab, Civil Engineering Department, Hasan Aliyevci University, Türkiye <b>Reducing fire climate change risks on the real estate for healthier, energy efficiency and economic future / Sağlıkli, enerji verimli ve ekonomik bir gelecek için gayrimenkul ütemlerde iklim değişikliği risklerini azaltmak</b>
Kürşat Köz, Birteç Real Estate Inc. İstanbul, Türkiye Dr. Ezzü Awa, Bosphorus AI Artificial Intelligence and Information Technologies Inc., Ankara, Türkiye <b>The use of artificial intelligence in real estate insurance processes: Compulsory disaster insurance / Gayrimenkul sigortalama süreçlerinde yapay zekâ kullanımı: Zorunlu ofset sigortası</b>	Pinar Sezgin, Department of Real Estate Development and Management, Ankara University, Türkiye Asst. Prof. Erdem Ercan, Department of Real Estate Development and Management, Ankara University, Türkiye Ayşe Gülşah Çelebi, Department of Real Estate Development and Management, Ankara University, Türkiye <b>Financing of PFI projects on the climate risks with respect to commercial real estate / İklim riskine ilişkin yasal düzenlemelerin ticari gayrimenkulde bütünyükle değerlendirilmesi</b>
Dr. Ezzü Awa, Bosphorus AI Artificial Intelligence and Information Technologies Inc., Ankara, Türkiye <b>Exploring real estate market dynamics with generative AI and sentiment analysis / Üretken yapay zekâ ve duygu analizi ile gayrimenkul pazar dinamiklerinin keşfi</b>	Gülşah Gülay, Public Oversight-Accounting and Auditing Standards Authority, Türkiye <b>Transition to mandatory sustainability reporting in Türkiye / Türkiye'de zorunlu sürdürülebilirlik raporlamasına geçiş</b>
Dr. Ali Arslan, Logistics and Supply Chain Management, Lancaster University, United Kingdom, Bosphorus AI Artificial Intelligence and Information Technologies Inc., Ankara, Türkiye Dr. Ezzü Awa, Bosphorus AI Artificial Intelligence and Information Technologies Inc., Ankara, Türkiye <b>Optimization of IoT Based smart devices in the construction and real estate sector using artificial intelligence / İnci ve gayrimenkul sektöründe IoT tabanlı akıllı cihazların yapay zekâ ile optimizasyonu</b>	Sara Amidi, Norwegian University of Science and Technology (NTNU), Norway Prof. Alekta Temelçioğlu Sakal, Faculty of Engineering, Norwegian University of Science and Technology, Norway <b>Strategic frameworks for energy renovation of the residential building stock: Urban facilities management and industrial ecology in Norway's energy renovation / Konut stoklarının enerji yenilenmesi için stratejik çerçeveler: Norveç'te enerji yenilenmesinde kentsel tesis yönetimi ve endüstriyel ekoloji</b>
Lara Paemen, Managing Director, IFMA EMEA <b>What is the role of facility managers in securing digitizing buildings? / Binaların dijitalleştirilmesinde tesis yöneticilerinin rolü nedir?</b>	Asst. Prof. Anastasia Sedova, Izhensk State Technical University, Anastasia Sedova Architects, Russia <b>Impact analysis on adaptive reuse of disused heritage buildings and lands/ Kullanılmayan ve miras kalan yapı ve arazilerin uyumlu ve sürdürülebilir yeniden kullanımına ilişkin etki analizi</b>
Prof. Hatun Tanrıvermiş, Head, Department of Real Estate Development and Management, Faculty of Applied Sciences, Ankara University	Prof. Hatun Tanrıvermiş, Head, Department of Real Estate Development and Management, Faculty of Applied Sciences, Ankara University



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## **Real Estate Tokenization: A Survey of Asian Investor Attitude and Investment**

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**Yuen Leng Chow<sup>2</sup>**  
**Seow Eng Ong<sup>3</sup>**

### **Abstract**

Tokenization of real estate refers to the issuance of real estate digital assets on a blockchain platform using distributed ledger technologies (DLTs). The tokens will be encoded with the identity of the token holder and specify the ownership of economic benefits derived from the underlying asset - ownership, revenue-sharing, profit-sharing, etc.

Much of the extant research examines the benefits and challenges of tokenizing physical real estate using blockchain technologies, and evaluates how technological disruption can provide the foundation to build platforms that can democratize real estate for retail investors and consequently, provide direct access for small and medium developer.

Research into investor attitude and approach to real estate tokens has been limited. This research provides a survey of investor attitude and investment in real estate tokens from an Asia perspective. We will examine how real estate tokens (RETs) have transformed the investment scene in Japan, and how investors view RETs in Thailand and Singapore.

**Key Words:** Real estate token (RET), ownership, distributed ledger technologies (DLT)

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## Economic Diversification and Real Estate Sector in Türkiye: Surfing on the Robust Path?

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### Abstract

Along with other sectors, the Turkish economic diversification is reshaping real estate market. From the past two decades, the Turkish real estate sector has grown tremendously due to demand of both local and foreigners. In the last decade, on an average 1,342,000 houses have been sold annually in the Turkish housing market. However, post-pandemic effect, earthquakes, war, banking regulations, foreign investment by the local citizen etc. all stand a spot of challenges for affordability for the local people. Though the GDP contribution of real estate sector remains increasing but affordability, demand and supply are not behaving in a balanced way. In this study, content analysis was applied to gather data based on secondary based research in order to highlight the dynamics of real estate sector in Türkiye. This study tries to answer the real estate sector contribution to the Turkish economy, outlines that formal housing gatekeepers should reflect in actual financial ability, strength of providers and overcome challenges. During the era marked by economic uncertainties, the Turkish real estate sector needed to stand as a spot of stability and security in economic development. Again, governmental interventions could ensure a robust solution for local people, and could provide effective sustainable development pathway for Türkiye.

**Key Words:** Housing, real estate sector, GDP, government intervention, affordability

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## Financing of Real Estate Activities and Construction Projects Across Islamic Banks in Selected Countries

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### Abstract

This study examines Islamic banks' financing of real estate activities and construction projects. Housing affordability is becoming more challenging globally, and the role of Islamic finance through Islamic banks in easing the financing would make acquiring dwellings affordable, especially for low to medium-income earners. This study examined Islamic banks' financing provisions for real estate activities and construction projects from 11 Muslim-majority countries: Indonesia, Iraq, Jordan, Malaysia, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, UAE, Sudan and Kazakhstan. This study obtained quarterly data that ranges from 2014Q1 to 2023Q4 was obtained from the IFSB. The study used the ARDL and panel analysis for country- and aggregate findings. The finding establishes that Islamic bank financing differs across different countries. Nonperforming financing was also analysed, which could be among the discouraging factors for Islamic banks from providing financing. The finding suggests that most Islamic banks need to increase their mode of financing provision and have a greater share in easing housing affordability in their various countries. The study also suggests that Islamic banks should use the client's credit ratings in providing financing, which could reinforce continuing checks and balances so that bank clients can use the funds for the right projects effectively.

**Key Words:** Real estate, construction, financing, islamic banks, muslim-majority countries, nonperforming financing, panel analysis and ARDL

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## **Strategic Asset Management Improvement for Immovable Assets of Malaysian Local Authorities**

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### **Abstract**

As highlighted by recent Auditor General reports, Malaysian local authorities' management of immovable assets faces significant challenges. These challenges include regulatory non-compliance, inadequate maintenance budgets, inefficient space utilisation, and weak governance structures. This study aims to address these issues by examining current practices and developing a comprehensive framework for improving strategic asset management at the local government level. This research employs a mixed-method approach, incorporating both quantitative and qualitative methodologies. It focuses on six local authorities across three categories; City, Municipality, and District councils, providing a representative sample of Malaysian local governments. The study examines the entire lifecycle of public facilities such as markets, stalls, public toilets, halls, and sports facilities from initial planning to eventual disposal. The primary objectives are to: (1) identify current immovable asset management practices in Malaysian local governments; (2) analyse the implementation of asset management concerning existing national policies and strategic plans; and (3) develop a Strategic Management Model for sustainable public facility management. Data collection methods include organisational structure analysis, assessment of asset management activities, evaluation of performance indicators, and user satisfaction surveys. The study also incorporates international benchmarking, drawing insights from countries with advanced public asset management systems such as Singapore, the United Kingdom, and Australia. This research contributes to the field by proposing a tailored Strategic Management Model that addresses the contextual challenges of Malaysian local authorities. The model aims to enhance regulatory compliance, improve resource allocation, and promote sustainable practices in public facility management. These findings have important implications for policymakers and local government

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IV. International Conference on Real Estate Development and Management  
ICREDM 2025  
3-5 February 2025  
Ankara University, Department of Real Estate Development and Management



practitioners seeking to optimise public asset utilisation and improve service delivery to citizens.

**Key Words:** Strategic asset management, local government, immovable assets, public facilities, sustainable development



## **Challenges and Opportunities in Developing an Infrastructure Asset Management Framework for Local Authorities in Sabah**

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**Ali Parsa<sup>3</sup>**

### **Abstract**

The development of an infrastructure asset management framework is a crucial step towards ensuring improved infrastructure asset management practices for Local Authorities (LA) in Sabah. This study aims to identify the key challenges and opportunities in implementing a more efficient, transparent, effective, and sustainable asset management framework. To achieve this objective, the study adopts a case study approach in Sabah, Malaysia, collecting data through document analysis, observation, interviews and a questionnaire survey involving 124 respondents in 24 LAs in Sabah and stakeholders. The findings highlight several key challenges, including resource constraints, lack of leadership support, and the absence of strategic planning and effective asset management. However, the study also identifies significant opportunities to enhance operational efficiency, promote environmental conservation, boost community economies, foster innovation and efficiency, improve sustainability and risk management, strengthen government-community relationships, implement better performance monitoring and management, increase accountability and governance, and optimise lifecycle-based maintenance. The study recommends adopting a comprehensive asset management framework model tailored to the specific needs of Sabah's LA as a practical guide. The findings provide valuable insights for policymakers, academics, and infrastructure asset management practitioners to improve the effectiveness of infrastructure asset management within Sabah's Local Authorities.

**Key Words:** Asset management framework, infrastructure asset management, local authorities, Sabah

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## Real Estate Investment Vehicle in Switzerland, It's Impact on the Valuation Sector and the Use of Artificial Intelligence

*/ İsviçre'de Gayrimenkule Dayalı Sermaye Piyasası Araçları,  
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### Abstract

In Switzerland, the real estate market is of great importance to the country's economy. Real estate capital market instruments are very broad and diverse at the international level. In this paper, all investment instruments in Switzerland are first presented in general terms and the topic is limited to "private & public equity" investment instruments and explained in detail. In this context, the players in the capital market and their organizational systems in Switzerland are presented. The real estate market, which is of great importance in the Swiss capital market, also has a great influence on the valuation sector. In this context, this article also makes a brief comparison with Türkiye. In general, the real estate and valuation industry in Switzerland benefits from advanced geographic information systems (GIS) in order to meet the high-quality standards of services. Therefore, the article explains also the structure and content of these fairly advanced GIS. With the continued advancement of technology and GIS, there has been a lot of discussion lately about the impact of artificial intelligence on the real estate sector. Finally, the latest trends in this area are briefly explained.

**Key Words:** Real estate capital market instruments, private & public equity, real estate investment funds, REIT's, real estate valuation sector, artificial intelligence (AI)

### Özet

İsviçre'de gayrimenkul sektörünün ülke ekonomisindeki önemi oldukça yüksektir. Gayrimenkule dayalı sermaye piyasası araçları uluslararası arenada oldukça geniş ve çeşitlilik göstermektedir. Bu bildiride önce İsviçre'deki tüm yatırım araçları genel olarak tanıtılarak, konu öz sermayeye (equity) dayalı yatırım araçları ile kısıtlanarak daha detaylı ele alınacaktır. İsviçre'de öz sermayeye (equity) dayalı yatırım araçlarının türleri, sermaye piyasasında yer alan aktörler ve organizasyon sistemlerine dair bilgiler yer almaktadır. İsviçre de sermaye piyasasında önemli bir yere sahip olan gayrimenkulün, değerlendirme sektörü üzerindeki etkisi de oldukça

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büyüktür. Bu bağlamda kısaca Türkiye ile de kısa bir karşılaştırma yapılmaktadır. Genel olarak gayrimenkul ve değerlendirme sektörü İsviçre’de yüksek kalitede hizmet beklentisini karşılayabilmek için gelişmiş coğrafi bilgi sistemlerinden (CBS) faydalanmaktadır. Dolayısıyla bu son derece gelişmiş CBS’lerinin yapısına ve içeriklerine de değinilmektedir. Teknolojinin ve CBS’lerin ihtiyaç ve beklentilere göre sürekli gelişmesi ile son zamanlarda yapay zekânın da gayrimenkul sektörünü ne şekilde etkileyeceği sıkça konuşulmaktadır. Son olarak bu alanda son trendlere kısaca göz atılmaktadır.

**Anahtar Kelimeler:** Gayrimenkule dayalı sermaye piyasası araçları, öz sermayeye dayalı yatırım araçları (private & public equity), yatırım fonları, GYO lar, değerlendirme sektörü, yapay zeka (AI)



## **What Explains the Regional Gap in Green Building Certificates Across England? Spatial Pattern of the Green Building Distribution in England and Wales**

**Qiulin Ke<sup>1</sup>  
Fangchen (Melanie) Zhang<sup>2</sup>**

### **Abstract**

Empirical studies provide evidence that commercial real estate with BREME, LEED, ECP, or Energy Star certifications command sale and rent premiums. However, there is a regional gap in green building distribution, often influenced by property market returns and underlying economic conditions in these areas. This paper empirically investigates the factors driving the transformation of green buildings across regions in England and Wales, focusing on regional economic development, commercial real estate market dynamics, and the effects of legislation and green job provision.

**Key Words:** Green building distribution, economic development, property market, legislation and green job

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## Property Tax, Valuation for Tax Purposes and Mass Valuation Practices in Switzerland */ İsviçre'de Emlak Vergisi, Vergi Amaçlı Değerleme ve Toplu Değerleme Uygulamaları*

Sevim Bakirci Rissi <sup>1</sup>

### Abstract

Taxation in Switzerland is regulated by the cantons in the area of assets and income. In general, each of the 23 cantons has different tax laws. For this reason, the topic was narrowed down and only the practice in the canton of Zurich was taken as a basis. The canton of Zurich has decided to update the property valuation and so-called rental price determination for tax purposes that has been in force since 2009 and to put it into effect on January 1, 2026. This article explains the valuation methods for tax purposes after the update. In this context, the valuations for tax purposes of land values, building values and condominiums are presented. To determine the tax values, the data bases used by the tax offices are explained and information about mass valuation is provided.

**Key Words:** Swiss property tax system, valuation for tax purposes, land value, building value, hedonic valuation, mass valuation

### Özet

İsviçre'de vergilendirme Kantonlar tarafından servetler ve gelirler adı altında düzenlenmektedir. Toplamda 26 Kantonun her birinde farklı bir vergi yasası geçerlidir. Bu sebepten dolayı konu sınırlandırılarak yalnızca Kanton Zürih deki uygulamalar temel alınacaktır. Kanton Zürih 2009 dan beri yürürlükte olan, vergilendirme amaçlı taşınmaz değerlerinin belirlenmesi ve sözde kira bedellerinin tespitinde güncelleme kararı almış ve 01.01.2026 dan itibaren geçerli olmak üzere revize etmiştir. Bu bildiri de güncellemeden sonra vergilendirme amaçlı değerlendirme yöntemlerine değinilmektedir. Bu bağlamda arsa değeri, bina ve dairelerin vergilendirme amaçlı değer tespiti ele alınmaktadır. Vergi dairelerinin değer tespitinde kullandıkları veri altyapısına değinerek, toplu değerlendirme ili ilgiler bilgiler aktarılmaktadır.

**Anahtar Kelimeler:** İsviçre emlak vergi sistemi, vergi amaçlı değerlendirme, arsa değeri, bina değeri, hedonik değerlendirme, toplu değerlendirme

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## **Improving Sanitation Systems in Southern Jordan: Implementing Mobile Latrines for Vulnerable Communities through a Socially-Driven Approach**

**Rania Aburamadan<sup>1</sup>**  
**Victoria Andrea Cotella<sup>2</sup>**

### **Abstract**

Informal settlements and marginalized communities today face significant inequality in access to resources, resulting in poor living conditions. The lack of basic needs, particularly sanitation, is evident in the prevalence of illness and disease. An inadequate sanitation system, along with insufficient hygiene facilities, contributes to these health issues, especially the shortage of toilets. This paper aims to improve informal settlements in Jordan by addressing critical sanitation challenges through the introduction of mobile latrines, a crucial solution for enhancing hygiene and water facilities. The innovative latrine system will be tested in Jordan's Poverty Pockets (PPs), where mobile populations, particularly seasonal workers (around 7,200 people), currently live-in tents with little to no sanitation. Existing mobile toilets are hard to access, require frequent maintenance, and pose environmental hazards when not properly emptied. Open defecation exposes these populations, particularly women, to infections, attacks, and an increased risk of virus transmission. Researchers will play a pivotal role in creating socially-driven technologies that address the sanitation gap in refugee communities. A mixed-methods strategy, including feedback and storytelling approaches, will be used to gather data.

The findings will ensure that the latrine solution is culturally and socially aligned, guaranteeing its acceptance and effectiveness for successful implementation and long-term impact. The findings will focus on ensuring that the mobile latrine solution is not only technically effective but also culturally and socially compatible with the target communities. This means understanding the local customs, beliefs, and social norms surrounding sanitation and incorporating these factors into the design and implementation process, the latrine design must respect cultural privacy standards and the role of women in these communities, particularly when it comes to safety and hygiene. Additionally, community engagement will be key to ensuring that the latrines are widely accepted, maintained, and used. The involvement of local leaders, community members, and relevant stakeholders in the decision-making process will help foster trust and increase adoption rates.

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Moreover, the effectiveness of the solution will be measured not only by its technical performance but also by its ability to integrate seamlessly into the social fabric of the community. This approach will increase the likelihood of long-term impact, reducing health risks, improving hygiene, and ultimately transforming the living conditions of vulnerable populations in southern Jordan.

**Key Words:** Southern Jordan, mobile latrine, social-driven, hygiene and sanitation, poverty pockets



## **Zero Net Land Take in Rural Germany: Engaging Communities with Geospatial Storytelling**

**Markus Schaffert<sup>1</sup>**  
**Cemre Şahinkaya<sup>2</sup>**  
**Andreas Hendricks<sup>3</sup>**

### **Abstract**

The rapid expansion of urban areas and its impact on both urban and rural areas has emerged as a significant challenge in contemporary urbanization. Germany, as one of the countries with the highest share of sealed surfaces in Europe, is seeking to develop various strategies to cope with this situation. Therefore, in 2002, the country set an ambitious goal of limiting land consumption to a maximum of 30 hectares per day by 2020. Following this, the target of reducing land consumption to zero by 2050 was also put on the agenda. In order to better observe the reflections of this issue especially in rural areas, the present study aims to provide a brief analysis of the urban sprawl of Fürth, a small rural city in Hesse, Germany, since World War II, and to offer suggestions and methods to increase the perceptibility of urban sprawl to the local population using geospatial and spatial storytelling methods. To this end, the study explores how historical and current aerial imagery combined with demographic data can effectively reveal land consumption patterns. These visualizations are then used in citizen workshops to reflect on their personal contribution to urban sprawl and to foster a sense of collective responsibility for sustainable settlement development. Furthermore, strategies and options for legal improvements are provided for this kind of development.

**Key Words:** Urban sprawl, geospatial visualization, spatial storytelling, Rural Germany

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## Master Plans in the Republic of Uzbekistan

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Sayfiyev Akromxon<sup>2</sup>

### Abstract

In accordance with the Decree of the President of the Republic of Uzbekistan dated September 11, 2023 "On measures to further improve the public administration system in the field of urban development and approval of programs for the development of urban documentation of settlements in 2023-2027. The purpose of the resolution is the economic development of the regions in the near, medium and long term, the realization of their economic potential and the implementation of urban planning and entrepreneurial activities, as well as the widespread introduction of a system for the development of master plans in addition to the development of regional planning schemes, master plans of cities, settlements and RAP. Since the beginning of this resolution, many master plans have been developed, including the master plan for new Tashkent, master plans for territories in districts and neighborhoods of Tashkent city, master plans for tourist destinations in such locations as the Maidanak High-altitude Observatory located in Kashkadarya region, Yusufkhona in the Free Tourist Zone, Tashkent region, Bostanlyk district. Environmental master plans can also serve as examples of specialized master plans. This is a document that represents a strategic set of recommendations and measures aimed at reducing the negative impact on the environment, improving the environmental situation and improving the quality of life of urban residents. And as an example, we can take a specialized transport master plan. Which was developed for the city of Tashkent, new Tashkent and Samarkand. This is the transport component of the master plan or the master plan of the city. It includes all the components of the transport system: public and individual transport and transport infrastructure. They cannot be considered separately from each other. This master plan will help solve problems such as 10-point traffic jams that Tashkent is already facing, reduce the load on transport hubs and avoid collapse in the near future.

**Key Words:** Master plans, Uzbekistan, economic development, Maidanak, standard of living

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## **Protection of Agricultural and Natural Areas in the New Version of the Master Plan for the Paris Region**

**Pierre Missioux <sup>1</sup>**

### **Abstract**

For 65 years, the Paris region, known as Ile-de-France, has had a master plan covering its entire territory. This urban planning and development document aims to control urban and demographic growth, manage land use, and ensure the region's economic development international prominence. It is tasked with coordinating public policies that are sometimes competing or even contradictory. The plan defines the purpose of different parts of the regional territory (dedicated to housing, industrial, artisanal, and commercial activities, logistics centers, agriculture, forestry, tourism, etc.), outlines environmental protection measures, and plans transportation infrastructure and major facilities. Despite being by far the most urbanized region in France, with 12.5 million inhabitants, Île-de-France is still largely composed of agricultural areas (50% of its surface) and wooded areas (27% of its surface). These lands and forests contribute to the balance of the territory and the quality of life of Ile-de-France residents. The region welcomes 50,000 additional residents each year and must build 70,000 new housing units during the same period. For a long time, urban expansion came at the expense of agricultural land. However, over the past 20 years, there has been a significant decrease in land artificialization around Paris, with Île-de-France becoming the most environmentally responsible region in the country in this regard. Various legislative measures and successive revisions of the master plan have helped reduce the consumption of agricultural and natural land. After two years of extensive consultation with various regional stakeholders, the Regional Council adopted a new master plan in September 2024, described as environmental, with the goal of achieving net-zero artificialization, step by step, by 2050. The purpose of the presentation is to detail the various measures adopted by the region in this new plan to reduce agricultural land consumption, maintain active farming around Paris, and promote sustainable development and environmental protection.

**Key Words:** Master plan, sustainable development, agricultural land

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## **Earthquake and Türkiye: Is It Possible to be Protected Against Disasters?**

*/ Deprem ve Türkiye: Afetlerden Korunmak Mümkün Mü?*

**Okan Tüysüz<sup>1</sup>**

### **Abstract**

The Alpine-Himalayan Mountain belt, where Turkey is located, has experienced natural disasters for millions of years due to its geological structure and geographical features. Many civilisations in these lands have faced various disasters such as earthquakes, floods, droughts, and fires, with some disappearing into history. Among these, earthquakes hold particular significance due to their capacity to cause massive loss of life and property. Historical records dating back over 4,000 years from this region, which features major active faults known as some of the most crucial earthquake sources in the world, clearly document the direct and indirect damages inflicted by earthquakes. Although it is possible to predict the locations where earthquakes will occur, their potential magnitudes, and their likely impacts within certain probabilities, at the current stage of earthquake science, it remains impossible to determine when an earthquake will strike. Today, disaster risk reduction is the most accepted method for protection against natural and human-made disasters, particularly earthquakes. For this reason, the necessity of a disaster-resistant society and disaster-resistant settlements is crucial.

With the acceleration of migration from villages to cities since the latter half of the 20th century, cities have faced rapid and unplanned growth. The centres of 24 provinces and 110 districts in Türkiye sit on active faults and are developing while neglecting this reality. Currently, the urban population rate of the country stands at 93.4%. This emphasises the significance of urban disasters over natural disasters due to increasing vulnerability and exposure. While the hazards of natural disasters are predictable, they cannot be completely reduced or eliminated; thus, two options emerge for mitigating disaster impacts: reducing exposure and vulnerability. Accomplishing these tasks can only be achievable by enhancing socioeconomic resilience. Socioeconomic resilience relies on economic development, awareness, and sustainability. Developed countries can navigate disasters far more easily than undeveloped or developing nations. Even when faced with disasters, they can quickly mitigate the effects due to economic and cultural advancements. In undeveloped and developing countries, disasters tend to inflict significantly greater damage proportionately due to higher exposure and vulnerability, and returning to the pre-disaster state becomes challenging, lengthy, and arduous. What needs to be pursued

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is finding ways to alleviate the impacts of the economic crises that have affected our country for many years, planning education to enhance human quality, and consequently establishing a sustainable society as swiftly as possible. Contrary to statements that could be considered milestones, the disasters have not been taken seriously, and the necessary lessons have not been learned. The reality of disasters, which was overlooked in the Republic's first century, presents itself today as a substantial problem that is extremely difficult to address. Continuing with a similar mindset into the second century indicates that many more lives and properties will be lost to disasters.

**Key Words:** Earthquake, Türkiye, fault, risk reduction

### Özet

Türkiye'nin de üzerinde yer aldığı Alp-Himalaya dağ kuşağı jeolojik yapısı ve coğrafi özellikleri nedeniyle milyonlarca yıldır doğa kaynaklı afetlerden etkilenmektedir. Bu topraklarda çok sayıda medeniyet deprem, sel, kuraklık, yangın gibi çeşitli afetlerden etkilenmiş, bazıları sırf bu nedenle tarihe karışmıştır. Bu afetler içerisinde kitlesel can ve mal kayıplarına yol açan depremlerin özel bir yeri vardır. Dünya'daki en önemli deprem kaynakları olan büyük diri fayları barındıran bu coğrafyanın 4.000 yılın ötesine uzanan yazılı tarihsel kaynakları depremlerin verdiği doğrudan ve dolaylı zararları açık bir biçimde belgelemektedir. Deprem ile ilgili bilim dallarının bugün geldiği noktada depremlerin olacağı yerleri, olası büyüklüğünü, olduğu takdirde nereleri ve nasıl etkileyeceğini belli olasılıklar dahilinde öngörmek mümkün ise de depremin olacağı zamanı kesin olarak belirlemek mümkün olmamaktadır. Günümüzde deprem başta olmak üzere gerek doğa gerekse insan kaynaklı afetlerle mücadelede kabul gören yöntem afet zararlarının azaltılmasıdır. Bunun için de afet dirençli bir toplum ve afet dirençli yerleşim gereksinimi öne çıkmaktadır.

20. Yüzyılın ikinci yarısından itibaren köyden kente göçün hızlanması ile kentler hızlı, çarpık ve plansız bir büyüme ile karşı karşıya kalmıştır. Ülkemizin 24 ili ve 110 ilçesinin merkezi diri faylar üzerinde oturmakta ve bu gerçeği göz ardı ederek büyümektedir. Günümüzde ülkemizin kentli nüfus oranı %93,4'tür. Öyle ki artık doğa kaynaklı afetten çok bunların kentlere etkisinden, yani kentsel afetlerden söz edilmektedir. Doğa kaynaklı afet tehlikesi öngörülebilir olsa da azaltılabilir ya da uzaklaştırılabilir olmadığından afet zararlarının azaltılması için kullanılacak iki seçenek, maruziyetin ve hasar görülebilirliğin azaltılması öne çıkmaktadır. Bunların başarılı olabilmesi ise ancak sosyoekonomik dirençliliğinin artırılması yolu ile mümkün olabilir. Sosyoekonomik dirençlilik üç ayak üzerinde yükselir: Ekonomik kalkınma, farkındalık ve sürdürülebilirlik. Gelişmiş ülkeler, az gelişmiş ya da gelişmekte olan ülkelere oranla afetleri çok daha az hasarla atlatabilmekte, afete maruz kalsalar bile ekonomik ve kültürel gelişmişlikleri sayesinde afetlerin etkilerini kısa sürede



silebilmektedirler. Gelişmemiş ülkelerde ise maruziyetin ve hasar görebilirliğin yüksek olması yüzünden afetler oransal olarak çok daha fazla zarar vermekte ve afet öncesi duruma dönüş zor, uzun ve meşakkatli olmaktadır. Yapılması gereken bilimsel olmayan kısır ve anlamsız çekişmelerin sonlandırılması, uzun yıllardır ülke olarak etkilendiğimiz ekonomik krizlerin etkilerinden kurtulmanın yollarının aranması, eğitimin insan kalitesini artıracak şekilde planlanması ve böylece sürdürülebilir bir refah toplumunun bir an önce inşa edilmesidir. Yaşanan afetler, milat olacak söylemlerinin aksine, pek ciddiye alınmamış, gerekli dersler çıkartılmamıştır. Cumhuriyetin ilk yüzyılında ihmal edilen afet gerçeği bugün ülkenin önünde başetmesi çok zor devasa bir sorun olarak durmaktadır. İkinci yüzyılda da benzer tavrın sürdürülmesi afetlere çok daha fazla can ve mal kurban edileceği anlamını taşımaktadır.

**Anahtar Kelimeler:** Deprem, Türkiye, fay, risk azaltma



**Studies and Vision Projects Carried Out within the Scope  
of Risk Reduction Activities Under the Disaster and  
Emergency Management Presidency (AFAD)  
/ Afet ve Acil Durum Yönetimi Başkanlığı (AFAD) Bünyesinde Risk  
Azaltma Faaliyetleri Kapsamında Yapılan Çalışmalar ve Vizyon  
Projeleri**

**Orhan Tatar<sup>1</sup>  
Aykut Akgün<sup>2</sup>**

**Abstract**

In accordance with the provisions of Presidential Decree No. 4, risk identification, mitigation, and prevention constitute a significant component of the responsibilities entrusted to AFAD. Since AFAD was established in 2009, significant studies have been conducted on these issues. With the establishment of the General Directorate of Earthquake and Risk Mitigation in 2022, highly significant and visionary projects have been undertaken on behalf of our country on the scope of risk identification and prevention studies. These studies continue with increasing momentum within the scope of today's technological conditions. Over the past five years, the Building Earthquake Regulation, which came into force in 2019, and the Earthquake Hazard Map of Turkey, published simultaneously, have facilitated significant progress in reducing earthquake-related damage in our country. Concurrently, studies have been initiated to develop earthquake pre-damage prediction systems to predict possible damage before and after an earthquake and transform this into an integrated system with artificial intelligence applications, which have become increasingly prominent in recent years. Furthermore, studies are underway to enhance and develop prediction software for natural hazards such as landslides, rockfalls and avalanches, which are influenced by climatic change. Similarly, studies are underway to assess and analyse risks associated with hazards stemming from technological activities. When the disaster dimension of these issues is considered, a significant risk mitigation and prevention approach can be developed. This approach entails predicting the extent of risks arising from the relationship between movable and immovable assets in advance and implementing the necessary measures to be taken before the disaster occurs. Enhancing the benefits of risk mitigation and prevention activities, constituting a fundamental

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component of our nation's economic and public safety objectives, will remain paramount.

**Key Words:** Disaster, hazard, risk reduction, immovable property

### **Özet**

Cumhurbaşkanlığı 4 no'lu kararnamesi kapsamında AFAD başkanlığına tanımlanan görevler içerisinde risk belirleme, azaltma ve önlem çalışmaları önemli bir yer tutmaktadır. AFAD'ın kurulduğu 2009 tarihinden bu yana söz konusu konularda önemli çalışmalar gerçekleştirilmiş olup 2022 yılında kurulan Deprem ve Risk Azaltma Genel Müdürlüğü bünyesinde risk belirleme ve önlem çalışmaları kapsamında ülkemiz adına son derece önemli ve vizyon sayılabilecek projeler gerçekleştirilmiştir. Bu çalışmalar günümüz teknolojisi koşulları kapsamında artan bir ivmeyle devam etmektedir. Son beş yıllık süre dikkate alındığında, 2019 yılında yürürlüğe giren Bina Deprem Yönetmeliği ve eşlenik olarak yayınlan Türkiye Deprem Tehlike Haritası ülkemizde deprem kaynaklı hasarların azaltılması noktasında önemli adımların atılmasına olanak sağlamıştır. Yine aynı süre zarfında deprem öncesi ve sonrası olası hasarın kestirilmesine yönelik deprem ön hasar tahmin sistemlerinin oluşturulması ve özellikle son yıllarda ön plana çıkan yapay zeka uygulamaları ile entegre bir sisteme dönüştürülmesi kapsamında çalışmalar başlatılmış ve halihazırda gelişmeye devam etmektedir. Heyelan, kaya düşmesi, çığ gibi doğa kaynaklı ve iklimsel değişim denetlemeli tehlikelere yönelik kestirim yazılımlarının iyileştirilmesi ve geliştirilmesi noktasında çalışmalar devam etmektedir. Buna ilave olarak teknolojik faaliyetler nedenli tehlikelere yönelik değerlendirme ve risk analiz çalışmaları da aynı ekseninde geliştirilmektedir. Tüm bu hususların özellikle afet boyutu ele alındığında taşınır-taşınmaz varlıklarla ilişkide bulunması sonucu ortaya çıkan risklerin boyutunun önceden tahmini ve buna yönelik afet olmadan önce alınması gerekli önlemlerin hayata geçirilmesi ile önemli bir risk azaltma ve önleme yaklaşımı geliştirilmesi mümkün olmaktadır. Kurumsal vizyon adımlarından biri olan risk azaltma ve önleme faaliyetlerinin sağladığı faydaların ülkemiz ekonomisi ve toplum güvenliği bakımından katkılarının katlanarak arttırılması temel amaçlardan biri olmaya devam edecektir.

**Anahtar Kelimeler:** Afet, tehlike, risk azaltma, taşınmaz



## **Differences in Earthquake Disaster Prevention Between Two Countries: A Comparison of Japan and Turkey**

**Yoshinori Moriwaki<sup>1</sup>**

### **Abstract**

There are significant differences among countries in terms of earthquake risks and the measures taken to mitigate these risks. In this context, it is evident that there are notable differences between Turkey and Japan concerning earthquake characteristics. This study presents the observed differences between Turkey and Japan regarding earthquake risks and precautions, as well as solution proposals to reduce potential damages caused by earthquake risks. As is well known, 52 out of 81 provinces in Turkey are located in first-degree earthquake zones. In particular, the North Anatolian Fault Line and the active faults beneath the Marmara Sea pose significant threats, especially to cities like Istanbul and Bursa, as well as surrounding settlements. Research results indicate that an earthquake affecting Istanbul is inevitable. Active faults, such as the North Anatolian Fault Line, present a serious risk. For instance, the major earthquakes in Istanbul in 1509 and 1766 demonstrate the periodic recurrence of movements along the faults beneath the Marmara Sea. Japan, a country with high seismic activity, offers inspiring practices in earthquake risk mitigation and disaster prevention that can serve as a model for countries like Turkey. In Japan, seismic isolation technology is widely used, not only in hospital buildings but also in residential buildings, schools, and museums. Furthermore, providing education from kindergarten onwards and conducting regular drills play a critical role in raising societal awareness. Significant differences exist between the two countries in terms of construction quality and technology. In Turkey, the establishment of building inspection companies was first enabled by Decree No. 595 in 2000, which introduced a building inspection system in 19 pilot provinces. Later, with the amendments made to the Building Inspection Law No. 4708 in 2010, the building inspection system was extended to all provinces starting from 2011. Under current conditions, approximately 50% of the building stock in the country still consists of illegal (or unlicensed) constructions, which are considered to have very high disaster risks. This situation constitutes the primary reason for the increasing risks of earthquakes and other disasters in the coming years. Therefore, it is deemed essential to accelerate the strengthening of the existing building stock and to promote the widespread use of seismic isolators. In conclusion, earthquake preparedness and awareness must be addressed both individually and socially. It is

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crucial to emphasize that securing the future of people can only be achieved through education, the use of technology, and strong legal regulations and their implementation.

**Key Words:** Earthquake risks, construction technologies, building inspection, disaster prevention, public education



## The Effect of Natural Hazards on Site Selection of Real Estate

### */ Dođal Afetlerin Gayrimenkulün Yer Seçimine Etkisi*

Recep Kılıç<sup>1</sup>

#### Abstract

Turkey is one of the most hazard prone countries in the world. Earthquake, landslide, flood, rock fall, sinkhole, volcanism, tsunami, etc. are the hazards which have been repeating from the occurrence of the globe and cause the changes in the shape of landscape or manmade structures. Such events have been defined as hazard when they result with economic and social issues. Otherwise, they are told to be parts of dynamic processes of the earth. Natural hazard is an event which have enormous effects which cannot be withstood by will of humans. Landslide, rock fall and flood are the major hazards which adversely affect the real estate and residential areas following the most predominant effects of earthquakes in Turkey. Landslide is the downward movement of soil and rock materials along inclined surfaces, triggered by earthquakes, groundwater, precipitation, etc. Rock fall is the movement of detached or free rock blocks on inclined surfaces, causing damage to the structures located at lower sections. Floods are the result of exceedance of the riverbed limits, effected by the climate conditions, geological and topographical properties. Unsystematic land use, damage to forest and agricultural areas, residential activity nearby rivers and flood risk areas might result with floods. The geological and geotechnical investigation of residents, dam site, tunnel, road, railroad, mall, single structure, etc. are the main topics related to reduce the possible hazards. The behavior, geotechnical properties, groundwater conditions of the soils before any engineering work should be accounted and evaluated before construction and design stages. Investigation of the static and dynamic behavior of the soils, rocks and altered rocks have great importance for engineering design in order to prevent damage during hazards. According to the characteristics of the soils examined in the field and in the laboratory, "settlement suitability maps" should be prepared as a basis for planning residential areas and should be taken into account in site selection. Therefore, geological and geotechnical investigation of foundation material is a main concern of site selection, city planning and design.

**Key Words:** Natural hazard, site selection, landslide, rock fall, flood, geological-geotechnical investigation

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## Özet

Türkiye dünyada doğa kaynaklı afetlerden en çok etkilenen ülkelerden birisidir. Deprem, heyelan, taşkın, kaya düşmesi, obruk, volkanizma, tsunami vb. yerkürenin oluşumundan bugüne kadar tekrarlanan ve yeryüzünün veya insanlar tarafından inşa edilen yapıların konumunu ve şeklini değiştiren doğal olaylardır. Bu olaylar insanlığı ve gayrimenkulü etkilemediği sürece dünyadaki dinamik sürecin basit birer parçası olarak kalmış; can kaybı, ekonomik zarar ve sosyal problemlere sebep olduğunda doğa kaynaklı afet olarak tanımlanmıştır. Doğa kaynaklı afet, insan gücü tarafından karşı koyulamayacak büyüklük ve etkideki doğal olaydır. Yerleşim alanlarını ve gayrimenkulleri olumsuz etkileyen, heyelan, kaya düşmesi ve taşkınlar Ülkemizde depremden sonra etkisi en çok görülen afetlerdir. Heyelan, eğimli bir yüzey boyunca yer çekimi ile zemin ve kayanın aşağıya doğru hareket etmesi olup deprem, yeraltı suyu, yağış vb etkenlerle tetiklenebilmektedir. Kaya düşmesi eğimli yüzeyler üzerinde veya serbest olarak blokların yuvarlanarak düşme şeklinde gelişir ve alt kotlardaki yapıların zarar görmesine neden olmaktadır. Taşkınlar akarsuyun yatağında taşıma kapasitesini aşması sonucunda oluşan doğa kaynaklı afetler olup gerçekleştiği bölgenin iklim şartlarına, jeolojik ve topoğrafik özelliklerine göre gelişir. Plansız arazi kullanımı, orman ve tarım alanlarının yok edilmesi, dere yatakları ve taşkın riski olan alanlarda yapılaşma gibi insan faaliyetlerinin taşkınlara önemli etkisi bulunmaktadır. Yeni yerleşim alanı, baraj, tünel, karayolu, demiryolu, avm, bina v.b. gibi yapıların yer seçiminde yapıların üzerinde veya içinde inşa edileceği zeminlerin jeolojik - jeoteknik özelliklerinin incelenmesi olası afet zararlarını azaltması açısından önemle üzerinde durulması gereken hususlardır. Yapıların tasarımında mühendislik girişimi öncesinde, sırasında ve sonrasındaki zemin davranışlarının, jeoteknik özelliklerinin, yeraltısuyu koşullarının ve jeolojik çevrenin yapılar ve kentin gelişimi üzerindeki etkilerinin kentsel planlama sürecinde ve inşaat öncesinde ayrıntılı şekilde değerlendirilmesi ve tasarımda dikkate alınması gerekmektedir. Yapıların afet sırasında olumsuz etkilenmemesi için üzerinde veya içinde bulunduğu zemin, kaya veya ayrılmış kayanın statik koşulda veya deprem durumunda gösterecekleri davranışın önceden belirlenmesi mühendislik tasarımında hayati önem taşımaktadır. Zeminlerin arazide ve laboratuvarında incelenen özelliklerine göre yerleşim alanlarının planlamasına esas "yerleşime uygunluk haritaları" hazırlanmalı ve yer seçiminde dikkate alınmalıdır. Dolayısıyla temel zeminin jeolojik-jeoteknik özelliklerinin etütleri; yer seçiminin, kent planlamasının ve yapı tasarımının ayrılmaz bir parçasını oluşturmaktadır.

**Anahtar Kelimeler:** Doğa kaynaklı afet, yer seçimi, heyelan, kaya düşmesi, taşkın, jeolojik-jeoteknik etüt



## **Fire Protection in Buildings / *Binalarda Yangından Korunum***

**Fisun Demirel <sup>1</sup>**

### **Abstract**

Fires have always posed significant threats to human life and the built environment. Major issues caused by fires include loss of life, injuries, and financial losses. Although it is impossible to completely eliminate fires, it is possible to minimize the loss of life and property through preventive measures. A large proportion of deaths and injuries in fires stem from buildings not being designed in compliance with fire safety standards. Fires that occur at night, especially in residences and hotels, while people are sleeping, cause higher casualties due to smoke inhalation and suffocation. In this context, decisions made regarding building designs, such as passive and active fire safety measures, are of critical importance. While many countries conduct numerous national and international studies and solution-oriented research on fire prevention, unfortunately, the number of such studies in our country is limited. The “Regulation Referring to the Fire Protection of Buildings” which I also took part in the preparation of, is an important guide in fire protection. However, updating the regulation, providing education on the topic, and increasing inspections are fundamental principles. Therefore, this paper aims to raise awareness about fire safety and promote public consciousness on this critical issue.

**Key Words:** Fire safety, fire safety precautions, fire statics, Regulation Referring to The Fire Protection of Buildings

### **Özet**

Yangınlar, her zaman insan hayatı ve yapılı çevre açısından ciddi tehditler oluşturmaktadır. Yangınların yol açtığı en büyük sorunlar arasında can kaybı, yaralanmalar ve maddi kayıplar yer almaktadır. Ancak, yangın çıkışını her zaman önlemek mümkün olmasada, alınacak önlemlerle yangında meydana gelen can ve mal kayıplarını en aza indirmek mümkündür. Yangınlarda, ölüm ve yaralanmaların büyük bir bölümü, binaların yangın güvenliğine uygun olarak tasarlanmamış olmasından kaynaklanmaktadır. Özellikle konutlarda ve otellerde geceleri insanların uyku sırasında yakalandığı yangınlar, duman zehirlenmeleri ve boğulmalar nedeniyle daha fazla can kaybına neden olmaktadır. Bu bağlamda, pasif ve aktif yangın güvenlik önlemleri gibi binaların tasarımlarında alınacak kararlar, son derece kritik bir öneme sahiptir. Birçok ülkede yangından korunma konusunda ulusal ve uluslararası düzeyde çok sayıda araştırma ve çözüm odaklı çalışma yapılırken, ülkemizde ne yazık ki bu konuda sınırlı sayıda çalışma yürütülmektedir. Yangından korunumda;

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hazırlanmasında da yer aldığım “Binaların Yangından Korunması Hakkında Yönetmelik”; önemli bir rehberdir. Ancak, güncellemelerin yapılması, bu konuda eğitimlerin verilmesi ve denetimlerin artırılması temel ilkedir. Bu nedenle bildiride; yangın güvenliği konusunda farkındalığın arttırılması ve toplumda bilinç oluşturulması amaçlanmıştır.

**Anahtar Kelimeler:** Yangından Korunma, yangın güvenlik önlemleri, yangın istatistikleri, Binaların Yangından Korunması Hakkında Yönetmelik



## **The Liability of Public Authorities in Facility Fires: The Case of the Bolu Kartalkaya Hotel Fire** */ Tesislerde Yangında Kamu İdarelerinin Sorumluluğu: Bolu Kartalkaya Otel Yangını Örneği*

Veli Böke<sup>1</sup>

### **Abstract**

Türkiye plays an essential role in the tourism sector on a global scale due to its natural beauty, rich cultural heritage, and strategic location. Winter tourism attracts thousands of domestic and foreign tourists annually with its ski resorts and mountain hotels. However, the sustainability and safety of tourist hotels are vital not only in terms of sectoral success but also in terms of human health and public safety. For this reason, the planning, licensing, operation and inspection processes of touristic hotels should be carried out in harmony with relevant legislation such as zoning, tourism, workplace and occupational safety. Sharing of authority and responsibility between central and local governments plays a critical role, especially when it comes to facilities with fire risk. However, in practice, it is observed that conflicts arising from legislative gaps and confusion of authority occur between these two levels of government. This study aims to examine the duties and responsibilities of central and local administrations within the framework of the legislation on the responsibilities of central and local administrations, which came to the agenda with the hotel fire in Bolu Kartalkaya, which caused deep sorrow in our country and 78 citizens lost their lives, and to present concrete suggestions for the prevention of such disasters.

**Key Words:** Fire risk, hotel fires, responsibility of central and local authorities, Kartalkaya, workplace safety

### **Özet**

Türkiye, doğal güzellikleri, zengin kültürel mirası ve stratejik konumuyla turizm sektöründe küresel ölçekte önemli bir rol üstlenmektedir. Özellikle kış turizmi, kayak merkezleri ve dağ otelleriyle her yıl binlerce yerli ve yabancı turisti kendine çekmektedir. Ancak, turistik otellerin sürdürülebilirliği ve güvenliği yalnızca sektörel başarı açısından değil, aynı zamanda insan sağlığı ve kamu güvenliği açısından da hayati bir öneme sahiptir. Bu nedenle, turistik otellerin planlama, ruhsatlandırma, işletme ve denetim süreçleri; imar, turizm, işyeri ve iş güvenliği gibi ilgili mevzuatlarla uyum içinde yürütülmelidir. Özellikle yangın riski taşıyan tesisler söz konusu olduğunda, merkezi ve yerel yönetimlerin yetki ve sorumluluk paylaşımı kritik bir rol

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oynamaktadır. Ancak uygulamada bu iki yönetim düzeyi arasında mevzuat boşluklarından ve yetki karmaşasından kaynaklanan çatışmaların meydana geldiği görülmektedir. Bu çalışmada, ülkemizi derin bir üzüntüye boğan ve 78 vatandaşımızın hayatını kaybettiği Bolu Kartalkaya'da yaşanan otel yangını ile gündeme gelen merkezi-yerel idarelerin sorumluluklarıyla ilgili mevzuat çerçevesinde görev ve sorumluluklarını incelemek ve bu tür afetlerin önlenmesi için somut önerilerin sunulması amaçlanmıştır.

**Anahtar Kelimeler:** Yangın riski, otel yangınları, merkezi ve yerel yönetimlerin sorumluluğu, Kartalkaya, işyeri güvenliği



## The Contribution of City Markets to Urban Economy: The Case of Çarşı Melikgazi */ Kent Pazarlarının Kentsel Ekonomiye Katkısı: Çarşı Melikgazi Örneği*

Hacı Mustafa Palancıoğlu<sup>1</sup>

### Abstract

City markets make significant contributions to revitalizing the local economy and enhancing social interaction. Çarşı Melikgazi is a project with a closed area of 5900 m<sup>2</sup>, consisting of two floors, aiming to stimulate the local economy of Melikgazi. It includes areas for the sale of fruits, vegetables, meat, dairy products, natural and organic products, as well as spaces such as a patisserie, florist, and cafe. This project, which will be open 7 days a week, stands out with its sustainable design. By enabling local producers to directly connect with consumers, it diversifies economic activities in Melikgazi. Çarşı Melikgazi will strengthen the urban economy by supporting local trade and offering consumers fresh and high-quality products.

**Key Words:** City market, urban economy, sustainable design, local trade, Çarşı Melikgazi

### Özet

Kent pazarları, yerel ekonominin canlanmasına ve toplumsal etkileşimin artmasına önemli katkılar sağlamaktadır. Çarşı Melikgazi, 5900 m<sup>2</sup> kapalı alana sahip, iki kattan oluşan Melikgazi'nin yerel ekonomisini canlandırmayı hedefleyen bir projedir. İçerisinde meyve-sebze, et-süt ürünleri, doğal ve organik ürünlerin satışının yapılacağı alanlar ile pastane, çiçekçi ve kafe gibi farklı mekanlar yer almaktadır. Haftanın 7 günü açık kalacak olan bu proje, sürdürülebilir tasarımıyla dikkat çekmektedir. Yerel üreticilerin ürünlerini doğrudan tüketiciyle buluşturması, Melikgazi'de ekonomik faaliyetlerin çeşitlenmesini sağlamaktadır. Çarşı Melikgazi, yerel ticaretin desteklenmesi ve tüketicilere taze, kaliteli ürünlerin sunulması yoluyla kentsel ekonomiyi güçlendirecektir.

**Anahtar Kelimeler:** Kent pazarı, kentsel ekonomi, sürdürülebilir tasarım, yerel ticaret, Çarşı Melikgazi

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## **The Contribution of Preparing a Local Smart City Strategy and Roadmap to Urban Economy / Yerel Akıllı Şehir Stratejisi ve Yol Haritası Hazırlanmasının Kentsel Ekonomiye Katkıları**

Akın Kısa<sup>1</sup>

### **Abstract**

Geographical Information Systems (GIS) have become a significant tool in the economic development of cities. The Local Smart City Strategy and Roadmap allow for a detailed analysis of a city's existing resources, infrastructure, and economic dynamics. This policy document supports the adoption of strategic and accurate decisions in urban economic planning. Specifically, the identification of investment areas, forecasting of infrastructure needs, and preparation of property value maps enhance economic efficiency. Furthermore, analyses of population density and demographic structure support the development of social and economic policies. GIS, integrated with smart city applications, provides cost savings in various fields, from the optimization of transportation networks to energy management. The development of economic decision-support systems increases efficiency in local economies, and the systems that enhance cities' competitiveness also support economic sustainability.

**Key Words:** Smart city strategy, geographic information systems (GIS), urban economy, economic efficiency, sustainability

### **Özet**

Coğrafi Bilgi Sistemleri (CBS), kentlerin ekonomik kalkınmasında önemli bir araç haline gelmiştir. Yerel Akıllı Şehir Stratejisi ve Yol Haritası, bir kentin mevcut kaynaklarını, altyapısını ve ekonomik dinamiklerini detaylı bir şekilde analiz etmeye olanak tanımaktadır. Bu politik belge, kentsel ekonomik planlamada stratejik ve doğru kararlar alınmasına destek olmaktadır. Özellikle, yatırım alanlarının belirlenmesi, altyapı ihtiyaçlarının öngörülmesi ve taşınmaz değer haritalarının hazırlanması, ekonomik verimliliği artırmaktadır. Ayrıca, nüfus yoğunluğu ve demografik yapı analizleri, sosyal ve ekonomik politikaların geliştirilmesini desteklemektedir. Akıllı şehir uygulamaları ile entegre edilen CBS, ulaşım ağlarının optimizasyonundan enerji yönetimine kadar farklı alanlarda maliyet tasarrufu sağlamaktadır. Ekonomik karar destek sistemlerinin geliştirilmesi, yerel ekonomilerde verimliliği artırmakta; şehirlerin rekabet gücünü artıran sistemler, ekonomik sürdürülebilirliği desteklemektedir.

**Anahtar Kelimeler:** Akıllı şehir stratejisi, coğrafi bilgi sistemleri (CBS), kent ekonomisi, ekonomik verimlilik, sürdürülebilirlik

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## **The Management Power of Municipalities in the Urban Economy: Resources, Opportunities and Problems** **/ Belediyelerin Kent Ekonomisindeki Yönetim Gücü: Kaynaklar, Fırsatlar ve Sorunlar**

Yahya Can Dura<sup>1</sup>

### **Abstract**

This study examines the roles and responsibilities of municipalities in Turkey from the perspective of urban economics. It highlights the reliance of municipal budgets on central government transfers while emphasizing the potential to increase self-generated revenues by enhancing service quality and quantity. The correlation between a city's income level, socio-cultural structure, and its capacity to generate municipal revenue is discussed. The study explores how urban planning, local partnerships, and investment attraction strategies can stimulate local economic development. Key points include leveraging municipal assets, implementing sustainable development-focused urban plans, and fostering innovation and entrepreneurship. Effective resource management, community involvement, and strategic utilization of urban rents are emphasized as essential for sustainable urban growth.

**Key Words:** Urban economics, municipalities, local economic development, resource management, sustainable development

### **Özet**

Bu çalışma, kent ekonomisi perspektifinden Türkiye'deki belediyelerin rollerini ve sorumluluklarını ele almaktadır. Belediye bütçelerinin merkezi yönetimden alınan transferlere olan bağımlılığına dikkat çekerken, öz gelirlerin artırılmasına yönelik faaliyetlerin hizmet kalitesi ve sayısını artırmadaki rolü vurgulanmıştır. Kentin gelir düzeyi ve sosyo-kültürel yapısının, belediyelerin gelir yaratma kapasitesi üzerindeki etkisi tartışılmıştır. Çalışma, kentsel planlama, yerel ortaklıklar ve yatırımcı çekme stratejilerinin yerel ekonomik kalkınmayı nasıl teşvik edebileceğini incelemektedir. Anahtar noktalar arasında belediye varlıklarının etkin kullanımı, sürdürülebilir kalkınma odaklı imar planları ve girişimciliğin teşvik edilmesi bulunmaktadır. Kaynakların etkin yönetimi, toplumun katılımı ve kentsel rantın stratejik kullanımı, sürdürülebilir kentsel büyüme için temel unsurlar olarak vurgulanmaktadır.

**Anahtar Kelimeler:** Kent ekonomisi, belediyeler, yerel ekonomik kalkınma, kaynak yönetimi, sürdürülebilir kalkınma

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## **The Impact of Migration on Local Economy and Local Integraton: The Case of Türkiye** */ Göçün Yerel Ekonomi ve Yerelde Sosyal Uyuma Etkisi: Türkiye Örneği*

**Nihal Eminoğlu<sup>1</sup>**

### **Abstract**

The impact of migration on national and local economies, socio-cultural structures, populations and social cohesion are important issues for both sending and receiving countries. On the one hand, there are countries that shape their migration policies to attract qualified migrants as a means of development; on the other hand, there are countries like Türkiye that face mass forced migration flows and host millions of refugees. This paper assesses the impact of Syrians, who have fled the war in Syria and sought refuge in Türkiye since 2011 and now number around 3 million, on the local economy and, by extension, on local integration.

Syrians under Temporary Protection status in Türkiye have been unevenly distributed across cities due to the lack of a resettlement policy. This has resulted in a concentration of Syrians, especially in border provinces, which has had both positive and negative impacts on the infrastructure of cities, the functioning of municipalities, the local economy and the social cohesion between Syrians and local community. This paper will provide examples of the impact of Syrians on the local economy, while also analyzing how Syrians' employment and self-reliance affect social cohesion. In addition, the effects of the return of Syrians after the regime change in Syria on the local economy will also be analyzed and a future projection will be drawn.

**Key Words:** Migration, local economy, social cohesion, refugees, integration

### **Özet**

Göç veren ülkeler ve göç alan ülkeler için göçün mevcut ulusal ve yerel ekonomilerine, sosyo-kültürel yapılarına, nüfuslarına ve sosyal uyuma etkileri önemli bir husustur. Bir tarafta kalkınmanın aracı olarak nitelikli göçmeni topraklarına çekmek için göç politikalarını şekillendiren ülkelere rastlanırken; diğer tarafta, Türkiye gibi, kitlesel zorunlu göç akınlarıyla karşı karşıya kalan ve milyonlarca mülteciye ev sahipliği yapan ülkeler de bulunmaktadır. Bu bildiri, 2011 itibarıyla Suriye'deki savaştan kaçarak Türkiye'ye sığınan ve bugün sayıları 3 milyon civarında

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olan Suriyelilerin yerel ekonomiye ve bununla bağlantılı olarak da yerelde sosyal uyuma etkilerini değerlendirmektedir.

Türkiye’de Geçici Koruma statüsündeki Suriyeliler, yerleştirme politikası uygulanmadığından, kentlere dengesiz dağılmışlardır. Bu durum, özellikle sınır illerinde Suriyelilerin yoğunlaşması sonucunu doğurmuş ve bu da kentlerin altyapılarından, belediyelerin işleyişine, yerel ekonomiden yerel toplumla mültecilerin uyumuna kadar olumlu ve olumsuz birçok etki yaratmıştır. Bu bildiride bu çerçevede özellikle Suriyelilerin yerel ekonomiye etkileri bakımından örnekler yer verilirken, aynı zamanda Suriyelilerin istihdamda yer alması ve kendi kendine yetebilir olmalarının sosyal uyuma nasıl etki ettiği analiz edilecektir. Bununla birlikte, Suriye’de rejim değişikliğinin ardından geri dönüşlerin başlamasının da yerele etkileri de bildiride ele alınarak bir gelecek projeksiyonu çizilecektir.

**Anahtar Kelimeler:** Göç, yerel ekonomi, sosyal uyum, mülteciler, entegrasyon



## Micro-Level Factors of Housing Affordability and Rent: A Cross-Sectional Analysis

Anirban Mostafa<sup>1</sup>  
Afroza Parvin<sup>2</sup>  
Imran Hossain Foishal<sup>3</sup>

### Abstract

Housing affordability remains a critical issue for tenants in urban areas of developing countries, where rapid urbanization and inadequate housing supply exacerbate the problem. This study aims to identify the micro-level factors that influence housing affordability and rent, focusing on tenants' preferences and household characteristics, through case studies conducted in Khulna, Bangladesh. The analysis delves into several key factors, including household-related elements (e.g., income, family size, expenditure patterns), housing consumption patterns (e.g., rental costs, overall housing expenditures, dwelling size), location-related considerations (e.g., proximity to essential services, access to public transport, neighborhood infrastructure), and housing quality preferences (e.g., structural condition, availability of utilities, maintenance). By systematically examining these factors, the study aims to illustrate how tenants' socio-economic characteristics, housing quality expectations, and location preferences collectively influence both the affordability and rental price of housing. The findings indicate that while tenants in urban areas are generally influenced by the quality of housing and proximity to services, those in neighborhoods with better amenities often face disproportionately higher rent. In contrast, tenants in less-developed areas tend to prioritize affordability, sometimes at the expense of housing quality. This research underscores the complexity of housing affordability, emphasizing that policies must be responsive to the varied and evolving needs of tenants in rapidly growing urban contexts. The study contributes to the growing body of literature on urban housing in the Global South by providing a nuanced understanding of how micro-level factors shape housing outcomes. It offers practical recommendations for policymakers, urban planners, and housing providers, advocating for solutions that integrate tenants' preferences and address the multifaceted nature of housing affordability in cities facing similar challenges to Khulna.

**Key Words:** Housing affordability, rental housing, tenant preference index, housing quality, location

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## Turkish Housing Affordability from the Perspective of Shift in Sales of Housing Financing Mode and Construction Cost Index

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### Abstract

Housing affordability has become a global issue, and the need for urgent attention was expressed in SDG11, which proposed the need for affordable housing by 2030. However, the continuous increase in the construction cost index and decreased house sales financed by financial intermediaries have triggered curiosity to examine the Turkish housing market's behaviour. The study variables are house sales by mortgage, house sales by others, first house and used house sales, construction cost index, interest rate and income distribution for the national monthly frequency data from January 2013 to September 2024. Data was obtained from the Turkish Department of Statistics. Dummy variables captured the potential shocks in the Turkish housing market during the study period. This study examines the implications of the shift in modes of financing of housing sales in Türkiye and the consequences of the rise in the construction cost index on the Turkish housing market. This study used event study to conclude that the Turkish housing market behaves differently with the shift in sales of housing financing mode and construction cost index. The finding revealed that the construction cost index and financing intermediaries are crucial in explaining housing affordability in the Turkish housing market. However, data frequency of unemployment rates and GDP imposed constraints from including the analysis.

**Key Words:** Turkish housing market, housing affordability, housing finance, construction cost index, interest rate, income distribution

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## Exploring the Spatial Dimensions of Housing Affordability: An Integrated Model for Measuring Sustainability Indicators in Residential Real Estate

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Tanha Tabassum Tisha<sup>3</sup>  
Ashrafuz Zaman<sup>4</sup>

### Abstract

This study investigates the sustainability of housing affordability by developing an integrated model that highlights the significance of spatial dimensions in creating affordable and livable environments in housing estates. While traditional research often focuses on the economic aspects of affordability, critical spatial qualities—such as the spatial organization of land use and infrastructure, access to community services and amenities, and fostering a sense of place and emotional wellbeing—are frequently overlooked. This research addresses this gap by analyzing how spatial planning and living environment factors interact with housing affordability to shape the overall sustainability of residential estates. Employing a mixed-methods approach, the study examines sustainable housing affordability in two planned residential estates in Khulna, Bangladesh. Using a three-stage methodological framework, the research integrates findings from spatial mapping, built environment analysis, and residents' perceptions through thematic interpretation, indexing, and multivariate regression modeling to assess both quantitative and qualitative indicators. The research outcomes underscore the importance of incorporating spatial dimensions into affordability frameworks, providing valuable insights for policymakers and housing and real estate professionals committed to creating sustainable residential communities.

**Key Words:** Land use, housing affordability, spatial planning, living environment, sense of place

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## **Contribution of Islamic Social Financing Towards Housing Affordability for Less Privileged Population**

**Bunyamin Adewale Bello<sup>1</sup>**

### **Abstract**

This article explores the contribution of Islamic social financing towards improving housing affordability for the less privileged population. Islamic social finance, encompassing instruments such as zakat, sadaqah, and waqf, offers a unique framework for addressing socio-economic challenges, including housing. Islamic finance presents a viable solution for low-income and marginalized communities by integrating these instruments into housing policies. The article discusses the integration of Islamic finance tools with public housing policies, focusing on case studies from Malaysia, Indonesia, Türkiye, Kuwait, and the Middle East. These case studies illustrate the practical applications of zakat and waqf in funding affordable housing projects, highlighting successes and challenges. Furthermore, the article delves into the regulatory and operational barriers to scaling up these solutions, such as legal constraints, institutional limitations, and the sustainability of waqf-based projects. Despite these challenges, Islamic social finance remains a powerful tool for enhancing financial inclusion and providing sustainable housing solutions. This review concludes by emphasizing the need for stronger regulatory frameworks and improved collaboration between stakeholders to overcome existing limitations and expand the impact of Islamic social finance in affordable housing development.

**Key Words:** Islamic social finance instruments, housing affordability, less-privileged population, marginalized community, Malaysia, Indonesia, Türkiye, Kuwait, and the Middle East

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## **Contractual Savings for Housing (Bausparen): A Resilient Solution for Global Housing Finance Challenges**

**Christian König<sup>1</sup>**

### **Abstract**

Bausparen, or Contractual Savings for Housing (CSH), represents a unique, sustainable approach to housing finance that has been integral to Germany's housing finance market and adapted in diverse international contexts. It allows individuals, including those from lower-income households, to save systematically towards home ownership. CSH operates on a straightforward, structured model where participants save for a fixed period, after which they are eligible for a loan at a fixed, pre-agreed interest rate, which is often lower than market rates. This approach provides unique benefits, such as predictable loan rates, affordability for lower-income households, and enhanced financial stability through a closed funding circuit.

In Germany, 13 Bausparkassen (CSH institutions) —both private and public— support this system, which operates under strict national regulations to ensure the protection and stability of saver deposits. Bauspar products complement traditional mortgages and are integral to Germany's housing finance system. They enable smaller, flexible financing options for renovations, new purchases, and follow-up financing. By encouraging regular savings, CSH products also provide a reliable credit history foundation, reinforcing participants' financial credibility.

Internationally, the CSH model has succeeded in challenging markets, including Central and Eastern Europe, where high inflation and volatile interest rates discouraged home financing after the Fall of the Iron Curtain. The success of CSH in these regions underscores the model's adaptability and sustainability, as it offers affordable housing loans independently of capital markets.

The success of CSH hinges on supportive legal frameworks, well-designed systems, and government incentives. Bausparen's proven resilience across markets and its alignment with sustainable housing finance principles highlight its role as a vital tool for fostering home ownership and financial security globally.

**Key Words:** Contractual Savings for Housing (CSH), housing finance system, capital market

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## Developing a Framework for Improving Rent-To-Own Housing Sector by Addressing Institutional Challenges to Implementation in Malaysia

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Dessy Shafiq Azmi<sup>5</sup>

### Abstract

Home ownership has become increasingly unaffordable globally and in Malaysia too. As such, Rent-to-own (RTO) which is an intermediate housing tenure involving an initial rental period with an eventual option to purchase has been introduced in Malaysia. RTO is akin to deferred home ownership, regarded as a secure housing tenure under SDG11 and Madani Inclusive Housing. Despite the availability of RTO for low-income groups since 1980s, it is still not widely implemented throughout Malaysia. As RTO has been recently reimagined to serve the middle-income group, the lag in its implementation suggests underlying institutional issues that must be addressed. A study was proposed to improve the implementation of RTO housing for the middle-income group by exploring key institutional challenges that hinder its development. This paper presents the achievement of the study's first objective, viz. to examine the implementation of RTO in Malaysia. Underpinned by a qualitative approach, this study adopts the Structure of Provision (SOP) institutional approach to frame the analysis of how the RTO scheme is actually rolled out in Malaysia. To achieve the first study objective, desk research and interviews were used to extract secondary data related to the provision of RTO. The paper presented the main SOP dimensions of RTO in Malaysia comprising production, exchange and consumption. The findings will be used in the next stage of the main research, which will identify institutional issues that have hindered the implementation of RTO in Malaysia.

**Key Words:** Rent-to-Own (RTO), housing, Structure of Provision (SOP), Malaysia

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## **Staying or Leaving: Assessing Municipal Attractiveness and Entrapment Through Longitudinal Residential Stability**

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### **Abstract**

This article investigates a novel methodology to understand the intricacies of population migration within local governments. By employing an extensive dataset comprising 290 municipalities and 20 years of data, we analyse a critical variable: the percentage of inhabitants who continue to reside in the same municipality as they did twelve months ago. This distinctive metric functions as a dual-purpose indicator, assessing a municipality's appeal and its inhabitants' entrapment. By integrating data on migration, demographics, income levels, housing prices, labour market conditions, and crime rates, a comprehensive understanding of the determinants that impact individuals' choices to stay or relocate interregionally can be attained. We provide an understanding of these variables' causal and temporal relationships by incorporating spatial autoregressive panel data analysis into our methodology. The initial results reveal trends and patterns in residential stability, underscoring the intricate interaction between demographic, social, and economic elements. This research increases the body of knowledge on urban migration and residential preference, providing policymakers and urban planners with vital information that can be used to improve the desirability and liveability of municipalities. Our objective is to differentiate between the favourable factors that enhance the attractiveness of a municipality and the unfavourable restrictions that restrict the mobility of its residents. In doing so, we hope to provide a thorough understanding of residential stability in urban environments.

**Key Words:** Residential stability, house prices, population migration, urban mobility

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## A Framework of Economic Indicators for Transit-Oriented Development: A Case Study of Bandar Sunway, Malaysia

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### Abstract

Transit-Oriented Development (TOD) has emerged as a potential solution to urban sprawl and traffic congestion in rapidly urbanizing Malaysian cities. However, the absence of standardised economic assessment tools has hindered effective TOD implementation and evaluation. This study aims to address this gap by developing a comprehensive Framework of Economic Indicators for Transit-Oriented Development (FEI-TOD) tailored to the Malaysian context, with a specific focus on Bandar Sunway as a case study. The research employs a mixed-method approach, integrating a systematic literature review using the PRISMA method, a three-round Delphi survey with TOD experts, and structured interviews with key stakeholders in Bandar Sunway. This methodological triangulation ensures the incorporation of global best practices, expert consensus, and local insights. The study systematically identifies common elements of successful TOD projects globally, compiles and evaluates potential economic indicators, and develops a context-specific framework for Bandar Sunway. The resulting FEI-TOD comprises 45 indicators across five categories: land use, density, transit facilities, value earnings, and economic attributes. This framework contributes to both the theoretical understanding of TOD's economic impacts and the practical implementation of sustainable urban development strategies in rapidly growing Malaysian cities. The FEI-TOD serves as a decision-support tool for urban planners, policymakers, and developers, facilitating evidence-based decision-making in TOD planning and implementation. The study's findings have significant implications for urban policy and practice in Malaysia, aligning with national urban development goals and the United Nations' Sustainable Development Goals, particularly SDG 11. The adaptability of the FEI-TOD suggests potential for broader application across diverse urban contexts in Malaysia and other rapidly urbanizing regions.

**Key Words:** Transit-Oriented Development; economic indicators; urban planning; sustainable development; Delphi Method

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## To Drive or not to Drive at the Golden Age

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### Abstract

Mobility is a crucial aspect of social engagement, requiring the ability to move freely and independently. Transportation acts as a vital link connecting all activities that make up daily life. To fully participate in society, individuals, especially the elderly, need reliable access to family, friends, social events, healthcare, and essential services. With the elderly population growing globally, including in Malaysia, it is imperative to investigate their preferred modes of transportation. This is particularly important as Malaysia is expected to become an aging nation by 2030.

Despite the significance of this issue, research on transportation accessibility and preferences among the elderly remains limited. Understanding the travel preferences of elderly individuals is essential to maintaining their mobility and, consequently, their quality of life. This study focuses on the preferred transportation modes among elderly residents of Klang Valley, Malaysia. Adopting a quantitative method, questionnaire survey was distributed to 110 elderly respondents to investigate their transportation preference, either driving or using public transportation.

The results, based on descriptive analysis, reveal that the majority of elderly prefer to drive on their own rather than opting for public transportation, taxis, or ride-hailing services like GoCar or Grab. The primary reason cited for this preference is convenience. These findings emphasize the need for further exploration into what "convenience" means for the elderly in terms of transportation that will increase their mobility. Understanding this can guide the development of better transportation systems that cater to the needs of an aging population.

**Key Words:** Elderly, preferred transportation mode, mobility, Malaysia, quality of life

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## **Harmonising Property Valuation Education and Standards: A Comparative Analysis of Ireland, Turkey, and France**

**David Heffernan<sup>1</sup>**

### **Abstract**

The property valuation profession plays a defining and crucial role in ensuring transparency and stability in real estate markets across Europe and the world. Nevertheless, differences in education, certification, ethical ways and regulatory frameworks across countries create challenges for international standardisation. This research presented examines the pathways to becoming a property valuer in Ireland, Turkey, and France whilst analysing the impact of key regulatory bodies such as the Society of Chartered Surveyors Ireland (SCSI), the Institute of Professional Auctioneers and Valuers (IPAV), the Capital Markets Board of Turkey (CMB), the Turkish Association of Real Estate Appraisers (TDUB), and the Institut Français de l'Expertise Immobilière (IFEI).

From a review of the existing literature present in the academic world and qualitative interviews with industry professionals, the research identifies key differences in educational requirements, professional development, and regulatory oversight. For example, in Ireland, an industry-led model allows for varying certification levels, with routes through both SCSI and IPAV. However, in Turkey, a centralised licensing system controlled by the CMB occurs, while France then to operate within a decentralised framework where multiple professional organisations set standards that must be achieved.

The findings presented highlight the challenges of inconsistent qualification criteria and regulatory fragmentation, which can hinder cross-border recognition of valuation expertise and prevent the profession collectively moving in the correct direction. The study explores potential opportunities for harmonisation, aiming towards a more aligned educational pathway across the board, mutual recognition of qualifications, and potential enhanced cooperation between professional bodies. These recommendations suggest a greater standardisation in property valuation education and certification whilst the research aims to improve professional mobility, market transparency, and investor confidence in international real estate transactions.

**Key Words:** Valuation standards, profession, SCSI

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## **The Role of Land Governance in Climate Resilience: A Critical Analysis of Ethiopia's Land Policy in Addressing the Climate Crisis**

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### **Abstract**

An appropriate land governance system has a positive result for a resilient climate. The contribution of land policy in climate change mitigation and adaptation has not been researched in Ethiopia. This paper aims to examine the role of Ethiopia's land policy in fighting against the climate crisis based on the elements of land policy identified by McAuslan: certainty, efficiency, equity, safeguarding of the State and national patrimony, and recognition of differences. To that end, a doctrinal legal research method was employed based on primary and secondary data sources. Laws are employed as primary sources of data, with fundamental emphasis on rural land legislations of Ethiopia and international and regional environment based protocols and agreements. The secondary sources were published and unpublished documents.

The analysis revealed that Ethiopia's land policies are not designed in a manner to define land rights certainly, regulate land allocation and use efficiently, distribute land fairly, and encourage customary tenure rights. However, by safeguarding the State and national patrimony concerning land, the land policy regime has been contributing to climate resilience investment. The paper suggests reform of Ethiopia's land policies in a manner they can contribute and promote climate change resilience.

**Key Words:** Land policy, climate change, climate resilience, Ethiopia

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## The Role Played by the Italian Public Administration for the Enhancement of Confiscated Real Estate Assets

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Andrej Adamuscin<sup>3</sup>  
Giulia Cutuli<sup>4</sup>

### Abstract

This paper describes the results of a survey administered to the Italian Local Public Administrations, investigating the phenomenon of seizure and confiscation of assets from organized crime. In Italy, the amount of assets seized from crime and now administered and managed amounts to 27,000 real estate properties with other commercial buildings for a total value of 25 billion euros (as of 2020). The reuse of real estate assets confiscated from organized crime represents a visible and tangible safeguard of legality and a form of compensation to society. It is important, therefore, that the process that makes these assets available to local public administrations is as simple and streamlined as possible, and that associations and public and private bodies can access these assets for social use in a fast and transparent way. In general, in Italy this bureaucratic process is complex and very slow with the consequence that the properties deteriorate and lose their value; furthermore, the current management of confiscated and seized assets is passive and far from a value perspective. In order to analyze this system, a comparison between the Italian management of seized and confiscated real estate and those adopted in the remaining European countries appears useful.

**Key Words:** Confiscation of assets from organized crime, Italian Public Administration, real estate management, real estate enhancement

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## **Training and Education in Facility Management: A Case Study from Egypt and Saudi Arabia**

**Yasser Zannoun<sup>1</sup>**

### **Abstract**

This case study explores the critical role of training and education in advancing the facility management (FM) industry in the Middle East and North Africa (MENA) region. The study, presented delves into the challenges and opportunities faced by the FM sector in Egypt and Saudi Arabia, two key markets in the region.

The primary objective of this case study is to examine the current state of training and education programs available to FM professionals in Egypt and Saudi Arabia, identifying gaps and areas for improvement. By analyzing existing initiatives, the study aims to provide valuable insights into effective strategies for developing a skilled workforce capable of meeting the evolving needs of the FM industry.

The scope of the case study encompasses a comprehensive review of various training and education programs, including formal academic courses, professional certifications, and on-the-job training. Additionally, the study will explore the role of industry associations and government bodies in promoting FM education and development.

Through in-depth analysis and case studies, the study concludes that there is a pressing need for enhanced training and education initiatives to address the growing demand for skilled FM professionals in the MENA region. Recommendations include establishing standardized curricula, increasing collaboration between academia and industry, and investing in continuous professional development programs.

By implementing these recommendations, the FM industry in this area of the world (MENA) specially Egypt and Saudi Arabia can foster a more skilled and knowledgeable workforce, ultimately leading to improved operational efficiency, cost-effectiveness, and overall performance.

**Key Words:** Facility management, training, education, Middle East and North Africa, workforce development

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## Performance Analysis of Fast-Food Operators in the Turkish Shopping Centers

Dursun Onur İlhan<sup>1</sup>

### Abstract

With gastronomy being an integral part of the product offer, the Turkish shopping center market had grown rapidly at the turn of the millennium and as of 2024, is experiencing its maturation phase. This paper presents, (1) an overview of the Turkish shopping center market, (2) the recent developments in the major fast food operators and (3) consequent analysis of four prominent fast food operators in the country, based on the performance figures collected from shopping centers across five cities and on the survey results derived from each operator's leasing decision-makers. Each operator represents different tastes and targets slightly different audiences, this variety also being supported by involving shopping centers from different provinces that correspond to distinctive disposable income levels and shopping preferences. Main focus areas of this paper are; (1) identifying the optimal point in leasable space required, in relation to gross sales, sales per square meters, rent levels and room costs (i.e. total cost including fixed and turnover rents, direct consumptions and common area costs), (2) elaborating on the role of both the shopping center and province in question on the performance outcomes, (3) realizing a critical comparison between this data-driven optimal point analysis and the views of the leasing decision-makers and (4) also identifying the most prominent challenges of the fast food operators in Türkiye in the eyes of leasing decision-makers, which are then compared to the findings of a literature review based on publicly available news and comments, as well as on the existing academic studies. Accessing reliable data is a major issue in the abovementioned market, thus, this paper shall support other researchers to initiate further enquiries regarding the feasibility and future direction of fast food operators in the Turkish shopping center market.

**Key Words:** Shopping centers, fast food, sales efficiency

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## Post Construction Strategic Planning Aligned with ISO 41001

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### Abstract

This paper presents a framework for post-construction strategic planning that aligns with ISO 41001, the international standard for Facility Management (FM). As organizations increasingly recognize the importance of effective facility management in enhancing operational efficiency and sustainability, a structured approach to post-construction planning becomes essential. This study articulates the key elements of a strategic planning process that ensures a seamless transition from construction to operational phases, focusing on optimizing facility performance and resource utilization.

Central to this framework is the integration of ISO 41001 principles, which provide a comprehensive methodology for establishing best practices in facility management. The paper outlines critical components such as performance measurement, stakeholder engagement, and risk management, emphasizing their roles in fostering a proactive management culture.

By aligning post-construction strategies with ISO 41001, organizations can enhance their ability to manage facilities effectively, ensuring not only compliance with international standards but also the realization of long-term value. This alignment facilitates improved decision-making, increased stakeholder satisfaction, and sustainable operational practices.

Ultimately, this paper serves as a guide for facility managers and decision-makers seeking to implement post-construction strategic planning that is robust and aligned with the principles of ISO 41001. The insights provided aim to contribute to the development of effective facility management strategies that enhance organizational resilience and performance in an increasingly complex operational landscape.

**Key Words:** Post-construction planning, strategic planning, ISO 41001, facility management, operational efficiency, stakeholder engagement, performance measurement, risk management, sustainability, organizational resilience

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## **E-commerce in the Modern Era: Expectations, Changing Demands and Impacts**

**Natavan Namazova <sup>1</sup>**

### **Abstract**

The e-commerce sector has a rapidly growing and changing structure. As in all growing sectors, this sector also faces various problems. These problems can affect the efficiency and profitability of the sector for both customers and businesses.

The growth of e-commerce in the modern era has led to higher expectations from this sector. Many factors, especially changing consumer expectations, rapid growth, technological requirements and environmental pressures, further deepen these expectations. For example, fast delivery demands by customers make logistics management difficult. E-commerce customers have come to expect faster delivery, especially thanks to large platforms (Amazon, Alibaba etc.). In order to provide same-day or next-day delivery services, logistics networks need to be expanded and optimized. It causes high costs and efficiency problems.

Today, the omni-channel shopping experience is increasing. In other words, online and offline integration is emerging. Consumers demand a seamless transition between physical stores and online shopping. For example, multi-channel options such as ordering a product online and picking it up from the store or seeing it in the store and ordering online have become popular.

The need for the development of Last Mile Delivery has increased. The last stage where the customer receives the order, "last mile" logistics, is one of the most challenging stages in terms of time and cost. Factors such as traffic, insufficient parking spaces, and the complexity of urban roads can extend delivery times and increase costs. Return logistics is one of the most important problems encountered today. The growth of return transactions is increasing. For example, with the spread of e-commerce, return rates have also expanded significantly. Especially in the fashion and clothing sector, return rates can reach high levels such as 30-40%. The management of return processes requires reverse logistics, which increases costs. In addition, reverse logistics increases environmental impacts. As it is known, sustainability and environmental impacts are also among the most important issues. With the growth of e-commerce, the transportation sector creates a serious carbon footprint. Companies are facing environmental sustainability pressures. Especially in

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urban deliveries, it is necessary to switch to environmentally friendly vehicles (electric vehicles, bicycle courier services).

The increase in operational costs makes it difficult for companies to compete. Warehouse rent, labor costs, fuel expenses and technology investments create cost pressure, especially for small and medium-sized companies. This can negatively affect profitability. The increasing competition between e-commerce platforms requires keeping prices low. However, working with low margins makes it difficult for businesses to be sustainable in the long term.

**Key Words:** E-commerce, operational costs, Last Mile Logistics, environmental pressures, competition



## Activity-Based Clustering of Real Estate Operating Companies and the Varying Adjustment to Shocks

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Rupert Eisfeld<sup>2</sup>

Tobias Just<sup>3</sup>

### Abstract

Real estate operating companies' price fluctuations have been analysed from multiple perspectives, including regional focus and investment type. Yet, the activities these companies engage in can significantly differ. The intensity to which they participate in various real estate value chain segments and within different sectors may lead to differing capital market performances. This is because individual activities may be more susceptible to shocks or valued differently by capital markets. We construct activity-based real estate stock indices using a cluster analysis of turnover structures, grounded on the two dimensions: business segments and sectors. Using a novel dataset for the DACH region, our analysis identified four meaningful activity clusters among real estate operating companies. These clusters can be viewed as the core of the respective business models. Furthermore, we analyse how these business model indices perform in the stock market, particularly their resiliency during crises. We employ Granger Causality Tests, changepoint analysis and three volatility measures to investigate these reactions. Our results underscore that these clusters react differently to various shocks. These insights serve as a basis for systematic benchmarking and enrich the understanding of stock market performances and resilience of different real estate business models across market phases.

**Key Words:** Real estate operating companies, business models, stock market performance, benchmark

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## **A Critical Approach to the Valuable Housing Tax / Değerli Konut Vergisine Eleştirel Bir Yaklaşım**

**Selda Aydın<sup>1</sup>  
Murat Zorkun<sup>2</sup>**

### **Abstract**

Taxes, which are one of the types of financial obligations, are sustainable sources of financing collected for purposes such as financing public services in line with the sovereign power of the state, ensuring economic growth and development, and regulating income distribution in the perspective of social welfare state. Taxes are based on income, expenditure and wealth. The norms of basic principles of taxation are followed in determining the scope and structure of taxes. Thus, the principle of ability to pay is constitutionally regulated and protected and this principle can be applied more effectively in taxes on wealth compared to other taxes. In this context, taking into account the principle of ability to pay, the Valuable House Tax was put into effect on the grounds that it serves the purposes expected from the tax and was included in the Turkish Tax System as a new wealth tax with the Law dated 5/12/2019 and numbered 7194. The Valuable House Tax has been introduced as of 2021 and is regulated by being added to the fourth part of the Real Estate Tax Law. The Valuable House Tax has been criticised in many aspects before and after its introduction. These criticisms focus on the fact that it causes double taxation and violates constitutional principles of taxation, particularly the principle of ability to pay. The aim of this paper is to critically analyse and evaluate the Valuable House Tax in the context of the taxation technique and constitutional principles of taxation. In this study, which will be based on the entire process starting from the rationale for the introduction of the tax to the implementation phase, the deficiencies/problems related to the tax will be revealed and different solutions will be proposed to eliminate the deficiencies/problems.

**Key Words:** Tax, wealth taxes, valuable house tax, real estate tax, constitutional principles of taxation

### **Özet**

Mali yükümlülük türlerinden olan vergiler, devletin egemenlik gücü doğrultusunda kamu hizmetlerinin finansmanı, ekonomik büyüme ve kalkınmanın sağlanması, sosyal refah devleti anlayışı perspektifinde gelir dağılımının düzenlenmesi gibi amaçlar ile toplanan sürdürülebilir finansman kaynaklarıdır. Vergiler gelir, harcama ve servet unsurları üzerinden alınmaktadır. Vergilerin kapsam

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ve yapılarının belirlenmesinde temel vergileme ilkeleri normlarına uyulmaktadır. Nitekim mali güce göre vergileme ilkesi anayasal olarak hüküm altına alınmış olup söz konusu ilke servet üzerinden alınan vergilerde diğer vergilere göre daha etkin bir şekilde uygulanabilmektedir. Bu bağlamda mali güce göre vergileme ilkesi dikkate alınarak, vergiden beklenen amaçlara hizmet etmesi gerekçesiyle Değerli Konut Vergisi yürürlüğe konulmuş ve yeni bir servet vergisi olarak Türk Vergi Sistemine 5/12/2019 tarihli ve 7194 sayılı Kanun ile dahil edilmiştir. Değerli Konut Vergisi 2021 yılından itibaren uygulanmaya başlanmış ve Emlak Vergisi Kanunu'nun dördüncü kısmına ilave edilmek suretiyle düzenlenmiştir. Değerli Konut Vergisi, yürürlüğe girmeden önce ve yürürlüğe girdikten sonra pek çok açıdan eleştiri konusu yapılmıştır. Söz konusu eleştiriler; çifte vergilendirmeye sebep olması, mali güce göre vergileme ilkesi başta olmak üzere anayasal vergileme ilkelerini ihlal etmesi üzerine yoğunlaşmaktadır. Bu çalışmanın amacı Değerli Konut Vergisi'ni, vergi tekniği ve anayasal vergileme ilkeleri bağlamında eleştirel bir yaklaşımla incelemek ve değerlendirmektir. Verginin getirilme gerekçesinden uygulanma aşamasına kadar olan sürecin tamamının esas alınacağı bu çalışmada, vergiye dair eksikler/sorunlar ortaya konulacak ve eksiklerin/sorunların giderilmesine yönelik farklı çözüm önerileri getirilecektir.

**Anahtar Kelimeler:** Vergi, servet vergileri, değerli konut vergisi, emlak vergisi, anayasal vergileme ilkeleri



## New Perspective of Real Estate Taxation and Restructuring of Current Practices

İ. İlhan Hatipoğlu<sup>1</sup>  
Monsurat Ayojimi Salami<sup>2</sup>

### Abstract

Real estate taxation is experiencing dramatic changes due to emerging global trends, technological advances, and evolving socio-economic needs. This paper employs a qualitative approach to delve into fresh viewpoints on real estate taxation and the reorganisation of current methods, highlighting significant challenges and opportunities for reform. A comparative analysis of international taxation frameworks reveals the influence of globalization on real estate tax policies, particularly regarding property ownership structures, tax evasion tactics, and informal marketplaces. It also investigates innovative taxation approaches, including value-based taxation, transaction taxes on real estate, and carbon taxes within development, which could foster more sustainable and fair tax systems. Additionally, the paper explores the application of digital technologies, such as blockchain and PropTech, in the collection and assessment of property taxes, demonstrating how these advancements can boost transparency, efficiency, and compliance. It discusses the social and economic outcomes of real estate tax reforms, emphasizing wealth distribution, the behavioural effects on market patterns, and the formulation of tax policies aimed at ensuring equitable housing access. Sustainability is highlighted, with discussions on incorporating tax incentives for green building practices into property tax frameworks. Furthermore, the role of regulatory systems in real estate taxation is examined, focusing on the taxation of Real Estate Investment Trusts (REITs) and the balance between local and national tax authorities. Finally, the paper addresses the challenges and prospects within post-pandemic real estate taxation, particularly how tax reforms can drive recovery and enhance housing affordability in light of COVID-19's effects on the global real estate sector. This thorough examination aspires to offer a guide for restructuring real estate tax practices to tackle modern issues like affordability, sustainability, and equity.

**Key Words:** Real estate taxation, taxation restructuring, technological advancement, transparency, wealth redistribution, green building incentives, REITs, Post COVID-19 pandemic

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## **Taxation of Real Estate Investment Trusts (REITS) and Real Estate Investment Funds (REIFS)** **/ Gayrimenkul Yatırım Ortaklıkları (GYO) Ve Gayrimenkul Yatırım Fonlarının (GYF) Vergilendirilmesi**

**Erol Demir<sup>1</sup>**  
**Fazıl Aydın<sup>2</sup>**  
**İsmail İlhan Hatipoğlu<sup>3</sup>**

### **Abstract**

One of the important elements that make the real estate market functional is financial institutions. Financial institutions are housing finance institutions (banks, etc.), mortgage finance institutions, real estate investment trusts, asset leasing companies, real estate investment funds, asset finance funds, etc. Among these institutions, real estate investment trusts (REITs) and real estate investment funds (REIFs) are considered important. REITs operate within the scope of real estate portfolio management. REIFs invest in real estate, real estate projects, real estate-based rights, infrastructure investments and services, capital and market instruments. The REIT system is a system that eliminates the liquidation of real estate investments.

REIFs, on the other hand, engage in activities that enable the securitization of real estate. REIFs are asset formations established to operate a portfolio based on the principle of fiduciary ownership on behalf of shareholders in return for the participation shares of certain qualified investors. REIFs are funds that provide liquidity, especially for large-scale real estate investments, and bring together investors and real estate owners. While REITs are legal entities, REIFs do not have legal entities. In this context, REITs and REIFs are considered as important investment vehicles that allow institutional capital to enter the real estate market, which has limited financial resources. In this sense, the formation of institutionalized REITs and REIFs makes a significant contribution to the development of real estate markets. One of the ways to support and develop these formations is the existence of tax facilities. In the study, tax facilities in this area are discussed by considering the changes over time. In addition, the tax status of REITs and REIFs is explained within the framework of the systematics of taxes levied on income, transaction taxes and taxes based on ownership. In addition, the establishment of REITs and REIFs, their purposes, market depth in Turkey, their contribution to the real estate market, their obvious advantages to real estate market actors and their status against taxes are emphasized. The scanning and interpretation method was applied as

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the research method in the study and the data was obtained using the secondary data collection method. The aim of the study is to reveal the place of REITs and REIFs in the real estate financing structure by considering their purpose and scope. In line with this purpose, it is evaluated that the study will make a valuable contribution to the real estate market parties.

**Key Words:** Real estate market, real estate finance institutions, real estate investment trusts, real estate investment funds, taxes

### Özet

Gayrimenkul piyasasını işlevsel hâle getiren önemli unsurlardan birisi finansal kuruluşlardır. Finansal kuruluşlar; konut finansman kuruluşu (banka, vb.), ipotek finansman kuruluşları, gayrimenkul yatırım ortaklıkları, varlık kiralama şirketleri, gayrimenkul yatırım fonları, varlık finansman fonu vb. kuruluşlardır. Bu kuruluşlar arasında gayrimenkul yatırım ortaklıkları (GYO) ile gayrimenkul yatırım fonu (GYF) önemli görülmektedir. GYO'lar gayrimenkul portföy işletmeciliği kapsamında faaliyet gösterirler. GYO'lar gayrimenkullere, gayrimenkul projelerine, gayrimenkule dayalı haklara, altyapı yatırım ve hizmetlerine, sermaye ve piyasa araçlarına yatırım yaparlar. GYO sistemi gayrimenkul yatırımının likidite edilmesini ortadan kaldıran bir sistemdir. GYF'ler ise gayrimenkullerin menkul kıymetleşmesine imkân sağlayan faaliyetlerde bulunurlar. GYF'ler belirli nitelikteki yatırımcıların katılım payı karşılığında pay sahipleri hesabına inanca mülkiyet esasına dayalı portföyü işletmek için kurulan malvarlığı oluşumlarıdır. GYF'ler, özellikle büyük ölçekli gayrimenkul yatırımlarına likidite sağlayan ve yatırımcılar ile gayrimenkul sahiplerini bir araya getirip buluşturan fonlardır. GYO'lar tüzel kişiliği olan kuruluşlar olurken, GYF'lerin tüzel kişiliği bulunmamaktadır. Bu kapsamda, GYO ve GYF'ler finansal kaynakları sınırlı olan gayrimenkul piyasasına, kurumsal sermayenin girmesine imkân sağlayan önemli yatırım aracı olarak kabul edilir. Bu anlamda, kurumsallaşmış GYO ve GYF'lerin oluşumu, gayrimenkul piyasalarının gelişmesine önemli katkı sağlamaktadır. Bu oluşumların desteklenmesi ve gelişmesinin yollarından birisi de vergisel kolaylıkların varlığıdır. Çalışmada, bu alandaki vergisel kolaylıklar, zaman içindeki değişiklikler de göz önünde bulundurularak ele alınmıştır. Bunun yanı sıra GYO ve GYF'lerin vergisel durumları, vergilerin kazanç üzerinden alınan vergiler, işlem vergileri ve sahipliğe dayalı vergiler sistematigi çerçevesinde açıklanmıştır. Ayrıca, GYO ve GYF'lerin kuruluşları, amaçları, Türkiye özelinde piyasa derinliği, gayrimenkul piyasasına katkısı, gayrimenkul piyasası aktörlerine olan bariz avantajları ile bunların vergiler karşısındaki durumu üzerinde durulmuştur. Çalışmada araştırma yöntemi olarak tarama ve yorumlama yöntemi uygulanmış ve veriler ikincil veri toplama usulü kullanılarak sağlanmıştır. Çalışmayla, GYO ve GYF'lerin amaç ve kapsamı ele alınarak gayrimenkul finansman yapısı içindeki yerinin ortaya çıkarılması amaçlanmıştır. Bu amaç doğrultusunda çalışmanın gayrimenkul piyasası taraflarına değerli katkı sağlayacağı değerlendirilmektedir.

**Anahtar Kelimeler:** Gayrimenkul piyasası, gayrimenkul finansman kuruluşları, gayrimenkul yatırım ortaklıkları, gayrimenkul yatırım fonu, vergiler



## Real Estate Valuation in Inheritance and Transfer Tax */ Veraset ve İntikal Vergisinde Gayrimenkul Değerlemesi*

Selda Aydın<sup>1</sup>  
Rıdvan Önder<sup>2</sup>

### Abstract

Inheritance and Transfer Tax aims to tax assets transferred either through inheritance or gratuitously during the lifetime of an individual. However, compared to other taxes, its share in total tax revenues in Türkiye is considerably low. The purpose of this study is to identify and discuss issues related to the valuation criteria used for real estate in determining the tax base for this tax and to propose some solutions for these issues.

In Türkiye, the real estate valuation process for the Inheritance and Transfer Tax (ITT) is quite detailed, with various regulations introduced over time. Different valuation criteria, such as the assessed value for property tax purposes, land-building tax value, tax value, and market value, have been used to determine the tax base for real estate during the long period that this tax has been in effect. An examination of legislative justifications reveals that lawmakers intended to assess real estate based on its market (fair) value. However, the tax value currently used in the regulations falls significantly short of accurately reflecting the actual value of real estate.

Real estate constitutes a significant component of wealth in Türkiye and forms an essential part of assets transferred either through inheritance or gratuitously. Unlike many movable assets, the registration and documentation requirements for real estate prevent its concealment or avoidance of declaration. However, undervaluation of real estate reduces the tax base, thereby negatively impacting tax revenues derived from the Inheritance and Transfer Tax.

This study aims to evaluate methods to determine the true market value of real estate—such as automated valuation and machine learning-based technologies—to enhance inheritance and transfer tax revenues. Valuing real estate at its fair market value within this framework would increase public revenues, promote equity in wealth and income distribution, and enhance efficiency in resource allocation.

**Key Words:** Real estate, inheritance and transfer tax, valuation criteria, tax value, market value

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## Özet

Veraset ve İntikal Vergisi, veraset yolu ile ya da sağlar arasında karşılıksız olarak intikal eden malların vergilendirilmesini amaçlayan ancak Türkiye’de toplam vergi gelirleri içinde payı, diğer vergiler ile karşılaştırıldığında oldukça düşük seviyelerde olan bir vergidir. Çalışmanın amacı bu verginin matrahının tespitinde gayrimenkuller için kullanılan değerlendirme ölçüsü ile ilgili sorunların ortaya konulması ve çözümlenmesi için bazı önerilerin tartışılmasıdır.

Türkiye’de VİV açısından gayrimenkullerin değerlendirme süreci oldukça detaylı olup zaman içinde farklı düzenlemeler yapıldığı görülmektedir. Uzun yıllardan beri yürürlükte olan bu verginin matrahının tespitinde gayrimenkuller için müsakkafat vergisi değeri, bina-arazi vergisi değeri, vergi değeri ve rayiç değer olmak üzere farklı değerlendirme ölçüleri esas alınmıştır. Kanun gerekçeleri incelendiğinde kanun koyucu tarafından gayrimenkullerin rayiç (piyasa) değer ölçüsü üzerinden değerlendirilmek istendiği açıktır. Ancak mevcut düzenlemede kullanılan vergi değeri ölçüsünün ise gayrimenkulün gerçek değerinin belirlenmesi noktasında çok gerilerde kaldığını görülmektedir.

Gayrimenkuller; Türkiye’de önemli bir servet unsuru olup veraset yolu ile veya ivazsız olarak intikal eden malların önemli bir kısmını oluşturmaktadır. Birçok menkul malın aksine gayrimenkullerin kayıt ve tescile tabi olması nedeniyle gizlenmesi veya beyanından kaçınılması mümkün değildir. Ancak gayrimenkullerin düşük bedelle değerlendirilmesi vergi matrahını azaltmak sureti ile veraset ve intikal vergisinden elde edilen vergi gelirlerini olumsuz yönde etkilemektedir.

Çalışmada gayrimenkullerin gerçek piyasa değerinin belirlenmesine yönelik yöntemler kullanılarak (otomatik değerlendirme ve makine öğrenmesi temelli teknolojileri gibi) veraset ve intikal vergisi gelirlerinin artırılmasına yönelik değerlendirmeler yapılması amaçlanmaktadır. Bu çerçevede gayrimenkullerin rayiç değerleri ile değerlendirilmesi kamu gelirlerini artırarak servet ve gelir dağılımında adaleti sağlayarak ve kaynak tahsisinde etkinlik yaratacaktır.

**Anahtar Kelimeler:** Gayrimenkul, veraset ve intikal vergisi, değerlendirme ölçüsü, vergi değeri, rayiç değer



**Dynamic Connectivity Relationship Between Green and  
Global Real Estate Indices and BIST REIT and BIST 100  
Index: An Evaluation from an Investment Perspective  
/ Yeşil ve Küresel Gayrimenkul Endeksleri ile BIST GYO ve BIST100  
Endeksi Arasındaki Dinamik Bağlantılılık İlişkisi: Yatırım  
Perspektifinden Bir Değerlendirme**

**Mesut Doğan<sup>1</sup>  
Asuman Erban Yavuz<sup>2</sup>**

**Abstract**

The main objective of this study is to identify the dynamic interconnectedness between green and global real estate indices, the Borsa İstanbul (BIST) Real Estate Investment Trusts (GYO) Index, and the BIST 100 Index. To achieve this aim, three different types of indices are used in the study: real estate environmental indices, real estate indices, and BIST indices. The variables used in the study include: Green REIT Index, Dow Jones Developed Green Real Estate Index, S&P Global Clean Energy Index, Dow Jones Global Select Real Estate Index, S&P Global REIT Index, FTSE NAREIT All Equity REIT Index, FTSE All-Share Real Estate Investment Index, S&P 500 Real Estate Index (SPLRCREC), Nikkei 500 Real Estate Index (NREA), STOXX Europe Total Market Real Estate Holding and Development Index, BIST Real Estate Investment Trusts Index (XGMYO), and the BIST 100 Index. The data sets used in the study are at a daily frequency and cover the period from 01.01.2019 to 01.01.2024. The dynamic relationships between these indices are investigated using the recently developed time-varying parameter vector autoregressive (TVP-VAR) model. The study finds that real estate environmental indices and real estate indices have a significant volatility spillover effect on the BIST 100 and BIST GYO indices. The findings of this study are expected to be useful for investors, portfolio managers, economic researchers, and real estate sector professionals. Investors can assess the impact of sustainable real estate investments on portfolio performance by understanding the dynamic connections between green and global real estate indices and Borsa İstanbul indices. Moreover, real estate professionals can make strategic decisions by observing the impact of environmentally friendly and sustainable investments on the market.

**Key Words:** Real estate indices, green real estate indices, BIST Real Estate Investment Trusts Index, TVP-VAR

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## Özet

Bu çalışmanın temel amacı, yeşil ve küresel gayrimenkul endeksleri ile Borsa İstanbul (BİST) Gayrimenkul Yatırım Ortaklıkları (GYO) Endeksi ve BİST 100 Endeksi arasındaki dinamik bağlantılılık ilişkisini tespit etmektir. Bu amaçla, çalışmada üç farklı endeks türü kullanılmıştır: gayrimenkul çevre endeksleri, gayrimenkul endeksleri ve BİST endeksleri. Çalışmada yer alan değişkenler şunlardır: Yeşil REIT Endeksi, Dow Jones Gelişmiş Yeşil Gayrimenkul Endeksi, S&P Küresel Temiz Enerji Endeksi, Dow Jones Küresel Seçili Gayrimenkul Endeksi, S&P Küresel REIT Endeksi, FTSE NAREIT Tüm Hisse Senedi REIT Endeksi, FTSE Tüm Hisse Gayrimenkul Yatırım Endeksi, S&P 500 Gayrimenkul Endeksi (SPLRCREC), Nikkei 500 Gayrimenkul Endeksi (NREA), STOXX Avrupa Toplam Pazar Gayrimenkul Holding ve Gelişim Endeksi, BİST Gayrimenkul Yatırım Ortaklıkları Endeksi (XGMYO) ve BİST 100 Endeksi. Çalışmada kullanılan veri setleri, günlük frekansta olup, 01.01.2019 - 01.01.2024 dönemini kapsamaktadır. Söz konusu endeksler arasındaki dinamik ilişkiler, son dönemde geliştirilen zamanla değişen parametre vektör otoregresif (TVP-VAR) model kullanılarak araştırılmıştır. Çalışmanın sonucunda, gayrimenkul çevre endeksleri ve gayrimenkul endekslerinin, BİST 100 ve BİST GYO endekslerine yoğun bir volatilité yaydığı tespit edilmiştir. Bu çalışmanın bulguları, yatırımcılar, portföy yöneticileri, ekonomi araştırmacıları ve gayrimenkul sektörü profesyonelleri için faydalı olması beklenmekte ve yatırımcılar, yeşil ve küresel gayrimenkul endeksleri ile Borsa İstanbul endeksleri arasındaki dinamik bağlantıları anlayarak, sürdürülebilir gayrimenkul yatırımlarının portföy performansına olan etkisini değerlendirebilirler. Bunun yanı sıra gayrimenkul sektörü profesyonelleri, çevre dostu ve sürdürülebilir yatırımların piyasa üzerindeki etkilerini gözlemleyerek, stratejik kararlar alması açısından da bu çalışma önemlidir.

**Anahtar Kelimeler:** Gayrimenkul endeksleri, yeşil gayrimenkul endeksleri, BİST Gayrimenkul Yatırım Ortaklıkları Endeksi, TVP-VAR



## **The Relationship Between Board Structure and Corporate Risk-Taking in Turkish Real Estate Investment Companies (REICs)**

### **/ Türkiye’deki Gayrimenkul Yatırım Ortaklıklarında (GYO) Yönetim Kurulu Yapısı ile Kurumsal Risk Alma Arasındaki İlişki**

**Merve Alp<sup>1</sup>**  
**Ali Parsa<sup>2</sup>**

#### **Abstract**

The increasing complexity of financial risks in the real estate sector, compounded by the challenges of climate change, necessitates robust corporate governance practices. This study examines the relationship between board structure and corporate risk-taking in Turkish Real Estate Investment Companies (REICs), focusing on key governance attributes such as board independence, gender diversity, and founder presence. By integrating insights from the literature and analyzing secondary data, the paper highlights how governance mechanisms shape strategic decisions in an industry characterized by high leverage and cyclical market fluctuations. The analysis is grounded in the Turkish regulatory context, where the Capital Markets Board (SPK) has introduced significant governance reforms to enhance transparency and accountability. Metrics such as the volatility of Return on Assets (ROA) and Return on Equity (ROE) are employed to quantify corporate risk-taking. The study incorporates a case study of Özak GYO, a leading Turkish REIC, to provide practical insights into the interaction between governance attributes and financial performance during periods of macroeconomic and environmental uncertainty. The findings underscore the importance of independent directors and gender diversity in fostering balanced decision-making and reducing financial volatility. However, founder-led governance, while driving entrepreneurial growth, is associated with higher risk-taking. The case study also reveals that while sustainability initiatives in the Turkish real estate sector are gaining traction, their integration into governance frameworks remains limited. This research contributes to the growing discourse on governance and risk management in emerging markets, offering actionable recommendations for policymakers and industry leaders. By emphasizing the need for aligned governance and sustainability practices, it provides

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a roadmap for enhancing resilience in the real estate sector amidst the dual pressures of financial and environmental challenges

**Key Words:** Corporate governance, Real Estate Investment Companies (REICs), financial risk management, board structure, sustainability practices

### Özet

Gayrimenkul sektöründeki finansal risklerin artan karmaşıklığı ve iklim değişikliğinin yarattığı zorluklar, sağlam kurumsal yönetim uygulamalarını daha da önemli hale getirmiştir. Bu çalışma, Türk Gayrimenkul Yatırım Ortaklıkları (GYO'lar) bağlamında, yönetim kurulu yapısı ile kurumsal risk alma arasındaki ilişkiyi incelemektedir. Araştırma kapsamında yönetim kurulu bağımsızlığı, cinsiyet çeşitliliği ve kurucu etkisi gibi temel yönetim özelliklerine odaklanılmıştır. Literatürden elde edilen bulgular ve ikincil veri analizi kullanılarak, yüksek finansal kaldıraç ve döngüsel piyasa dalgalanmaları ile karakterize edilen bir sektörde yönetim mekanizmalarının stratejik kararları nasıl şekillendirdiği ortaya konulmuştur. Analiz, Türk sermaye piyasalarındaki düzenleyici ortamı ve özellikle Sermaye Piyasası Kurulu'nun (SPK) şeffaflık ve hesap verebilirliği artırmak amacıyla uygulamaya koyduğu önemli kurumsal yönetim reformlarını temel almaktadır. Çalışmada, kurumsal risk alma düzeyini ölçmek için Varlık Getirisi (ROA) ve Özkaynak Getirisi (ROE) dalgalanması gibi finansal performans göstergeleri kullanılmıştır. Ayrıca, Türkiye'nin önde gelen GYO'larından biri olan Özak GYO üzerine yapılan bir vaka analizi, kurumsal yönetim özellikleri ile finansal performans arasındaki etkileşimi, makroekonomik ve çevresel belirsizlik dönemleri bağlamında incelemek için detaylı bir perspektif sunmaktadır. Elde edilen bulgular, bağımsız yönetim kurulu üyelerinin ve cinsiyet çeşitliliğinin daha dengeli karar alma süreçlerini desteklediğini ve finansal volatilitiyi azalttığını göstermektedir. Bununla birlikte, kurucuların etkisiyle yönetilen şirketlerin girişimcilik odaklı büyümeyi teşvik ederken daha yüksek risk alma eğilimi gösterdiği anlaşılmaktadır. Vaka analizi ayrıca, Türk gayrimenkul sektöründe sürdürülebilirlik girişimlerinin giderek önem kazandığını, ancak bu girişimlerin kurumsal yönetim çerçevelerine entegrasyonunun hâlâ sınırlı kaldığını ortaya koymaktadır. Bu araştırma, gelişmekte olan piyasalarda kurumsal yönetim ve risk yönetimi üzerine artan literatüre katkı sağlamaktadır. Çalışma, politika yapıcılar ve sektör liderleri için uygulanabilir öneriler sunarken, yönetim ve sürdürülebilirlik uygulamalarının uyumlu hale getirilmesinin önemini vurgulamaktadır. Böylece hem finansal hem de çevresel zorlukların yarattığı baskılar altında gayrimenkul sektörünün dayanıklılığını artırmaya yönelik bir yol haritası sunmaktadır.

**Anahtar Kelime:** Kurumsal yönetim, Gayrimenkul Yatırım Ortaklıkları (GYO), finansal risk yönetimi, yönetim kurulu yapısı, sürdürülebilirlik uygulamaları



**Alignment of Strategic Plans with Sustainable Facility  
Management and Performance Improvement in  
University Campuses**  
*/ Üniversite Kampüslerinde Stratejik Planların Sürdürülebilir Tesis  
Yönetimi ile Uyumlaştırılması ve Performans Artışı<sup>1</sup>*

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**Rabia Akgün<sup>5</sup>**

**Abstract**

The study aims to examine how sustainable facility management practices in universities can be aligned with the university's long-term strategic goals. This research evaluates facility management as a strategic tool that contributes to goals such as institutional growth, academic success and environmental responsibility beyond operational efficiency. It addresses this issue through the example of Ankara University Beşevler Campus. The current strategic plan of Ankara University is analyzed by integrating it with the principles of sustainable facility management. This process used methods such as current situation analysis, stakeholder views and SWOT analyses to develop strategic plans to increase the university's resource efficiency and sustainability performance. The study also drew strategic, tactical and operational plans for facility management. In addition to these methods, a monitoring and evaluation process based on the 10P model was designed to provide a comprehensive evaluation of facility management. The components of the 10P model, namely Purpose, Principles, Process, People, Place, Product, Promotion, Price, Partnerships and Performance, enable regular performance monitoring in line with sustainability goals. The comprehensive model, which will be implemented at Ankara University Beşevler Campus, is expected to make significant contributions to achieving sustainability goals in the fields of energy efficiency, waste management and user satisfaction. The monitoring and evaluation process based on the 10P model provides a continuous improvement mechanism to ensure compliance with sustainability and strategic goals by regularly measuring performance on each component. The potential impact of the 10P model on the achievement of these

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goals is significant, as it provides a practical framework for monitoring and improving sustainability performance. The expected findings reveal that facility management models aligned with strategic goals in universities can be an important tool in achieving sustainable development goals. The case of Ankara University Beşevler Campus aims to provide a guiding framework on how sustainable facility management approaches can be enabled. The 10P model and the monitoring and evaluation process play a crucial role in this, as they provide a comprehensive and effective way to monitor and improve sustainability performance.

**Key Words:** Strategic alignment, sustainable facility management, university campuses, 10P model, monitoring and evaluation process, performance improvement

### Özet

Çalışma, üniversitelerdeki sürdürülebilir tesis yönetimi uygulamalarının üniversitenin uzun vadeli stratejik hedefleriyle nasıl uyumlu hale getirilebileceğini incelemeyi amaçlamaktadır. Bu araştırma, tesis yönetimini operasyonel verimliliğin ötesinde kurumsal büyüme, akademik başarı ve çevresel sorumluluk gibi hedeflere katkı sağlayan stratejik bir araç olarak değerlendirmektedir. Bu konuyu Ankara Üniversitesi Beşevler Kampüsü örneği üzerinden ele almaktadır. Ankara Üniversitesi'nin mevcut stratejik planı, sürdürülebilir tesis yönetimi ilkeleri ile bütünleştirilerek analiz edilmiştir. Bu süreçte mevcut durum analizi, paydaş görüşleri ve SWOT analizleri gibi yöntemler kullanılarak üniversitenin kaynak verimliliğini ve sürdürülebilirlik performansını artırmaya yönelik stratejik planlar geliştirilmiştir. Çalışmada ayrıca tesis yönetimi için stratejik, taktiksel ve operasyonel planlar çizilmiştir. Bu yöntemlere ek olarak, tesis yönetiminin kapsamlı bir şekilde değerlendirilmesini sağlamak amacıyla 10P modeline dayalı bir izleme ve değerlendirme süreci tasarlanmıştır. 10P modelinin bileşenleri olan Amaç, İlkeler, Süreç, İnsanlar, Yer, Ürün, Tanıtım, Fiyat, Ortaklıklar ve Performans, sürdürülebilirlik hedefleri doğrultusunda düzenli performans takibi yapılmasını sağlıyor. Ankara Üniversitesi Beşevler Kampüsü'nde uygulanacak olan kapsamlı modelin enerji verimliliği, atık yönetimi ve kullanıcı memnuniyeti alanlarında sürdürülebilirlik hedeflerine ulaşılmasına önemli katkılar sağlaması bekleniyor. 10P modeline dayalı izleme ve değerlendirme süreci, her bir bileşen üzerindeki performansı düzenli olarak ölçerek sürdürülebilirlik ve stratejik hedeflere uyumu sağlamak için sürekli bir iyileştirme mekanizması sağlar. Sürdürülebilirlik performansının izlenmesi ve iyileştirilmesi için pratik bir çerçeve sağladığından, 10P modelinin bu hedeflere ulaşılması üzerindeki potansiyel etkisi önemlidir. Beklenen bulgular, üniversitelerde stratejik hedeflerle uyumlu tesis yönetimi modellerinin sürdürülebilir kalkınma hedeflerine ulaşmada önemli bir araç olabileceğini ortaya koymaktadır. Ankara Üniversitesi Beşevler Kampüsü örneği, sürdürülebilir tesis yönetimi yaklaşımlarının



nasıl etkinleřtirilebileceđine dair yol gsterici bir ereve sunmayı amalamaktadır. Srdrlebilirlik performansının izlenmesi ve iyileřtirilmesi iin kapsamlı ve etkili bir yol sađlayan 10P modeli ile izleme ve deđerlendirme sreci bu konuda nemli bir rol oynamaktadır.

**Anahtar Kelimeler:** Stratejik uyum, srdrlebilir tesis ynetimi, niversite kampsleri, stratejik hedefler, performans artışı



## **Performance Improvement in University Campuses in The Context of Value-Added Facility Management Approach and Sustainable Development Goals** */ Üniversite Kampüslerinde Değer Katan Tesis Yönetimi Yaklaşımı ve Sürdürülebilir Kalkınma Hedefleri Bağlamında Performans Artışı*

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### **Abstract**

The primary purpose of this study is to investigate the potential to add value to campus life by structuring facility management processes in university campuses in line with the United Nations Sustainable Development Goals (SDGs). It is argued that facilities management is not only an operational function but also a strategic tool that contributes to the university's long-term goals in the areas of environmental sustainability, user satisfaction, energy efficiency and social contribution. Ankara University Beşevler Campus has been selected as a case study, and current facility management practices have been analyzed in detail. In this context, sustainability performances such as user satisfaction, energy efficiency and waste management were evaluated and data collection methods, including stakeholder participation, were used. Strategic plans were developed through SWOT and stakeholder analyses to improve the university's resource efficiency and sustainability performance. Within the scope of the study, it is predicted that the value-adding facility management approach applied at Ankara University Beşevler Campus can increase operational efficiency as well as environmental sustainability and capacity to provide social benefits. It is expected that costs will be reduced by optimising energy consumption and sustainability contribution will be strengthened through recycling projects and environmental responsibility activities. At the same time, these practices are expected to lead to a significant improvement in user satisfaction, reassuring the audience about the positive impact on the campus community. The expected findings indicate that facility management models aligned with strategic goals in university campuses can provide a concrete roadmap for achieving sustainable development goals by optimizing resource use. Based on the example of Ankara University Beşevler Campus, this paper aims to develop a practical framework for

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implementing a sustainability-oriented facility management model that directly contributes to the university's strategic goals.

**Key Words:** Value-added facility management, sustainable development goals, university campuses, strategic goals, performance improvement

### Özet

Üniversite kampüslerindeki tesis yönetimi süreçlerini, Birleşmiş Milletler Sürdürülebilir Kalkınma Hedefleri (SKH'ler) doğrultusunda yapılandırarak kampüs yaşamına değer katma potansiyelini araştırmak bu çalışmanın temel amacını oluşturmaktadır. Tesis yönetiminin yalnızca operasyonel bir işlev değil, aynı zamanda çevresel sürdürülebilirlik, kullanıcı memnuniyeti, enerji verimliliği ve toplumsal katkı alanlarında üniversitenin uzun vadeli hedeflerine katkı sağlayan stratejik bir araç olarak değerlendirilebileceği öne sürülmektedir. Ankara Üniversitesi Beşevler Yerleşkesi, örnek olay olarak seçilmiş ve mevcut tesis yönetimi uygulamaları ayrıntılı bir şekilde incelenmiştir. Bu bağlamda, kullanıcı memnuniyeti, enerji verimliliği ve atık yönetimi gibi sürdürülebilirlik performansları değerlendirilmeye tabi tutulmuş; paydaş katılımını içeren veri toplama yöntemleri kullanılmıştır. SWOT ve paydaş analizleri aracılığıyla, üniversitenin kaynak verimliliğini ve sürdürülebilirlik performansını artıracak stratejik planlar geliştirilmiştir. Çalışma kapsamında, Ankara Üniversitesi Beşevler Yerleşkesi'nde uygulanan değer katan tesis yönetimi yaklaşımının, operasyonel verimliliğin yanı sıra çevresel sürdürülebilirlik ve toplumsal fayda sağlama kapasitesini artırabileceği öngörülmektedir. Yerleşkede enerji tüketiminin optimize edilmesiyle maliyetlerin düşürülmesi; geri dönüşüm projeleri ve çevresel sorumluluk faaliyetleriyle sürdürülebilirlik katkısının güçlendirilmesi beklenmektedir. Aynı zamanda, bu uygulamaların kullanıcı memnuniyetinde de kayda değer bir iyileşme sağlaması hedeflenmektedir. Elde edilmesi beklenen bulgular, üniversite kampüslerinde stratejik hedeflerle uyumlu tesis yönetimi modellerinin, kaynak kullanımını optimize ederek sürdürülebilir kalkınma hedeflerine ulaşmada somut bir yol haritası oluşturabileceğine işaret etmektedir. Ankara Üniversitesi Beşevler Yerleşkesi örneğinden yola çıkarak, sürdürülebilirlik odaklı bir tesis yönetimi modelinin üniversitenin stratejik hedeflerine doğrudan katkı sağlayacak şekilde nasıl uygulanabileceğine dair etkili bir çerçevenin geliştirilmesi amaçlanmaktadır.

**Anahtar Kelimeler:** Değer katan tesis yönetimi, sürdürülebilir kalkınma hedefleri, üniversite kampüsleri, stratejik hedefler, performans artışı



## **Determination of Restrictive Policies for Foreigners Real Estate Acquisition in the Context of Agricultural Lands: The Case of Türkiye**

***/ Tarım Arazileri Bağlamında Yabancıların Gayrimenkul Edinimine  
Yönelik Kısıtlayıcı Politikaların Belirlenmesi: Türkiye Örneği***

**Gizem Ulusoy<sup>1</sup>**

**Yeşim Tanrıvermiş<sup>2</sup>**

### **Abstract**

The globalization of agricultural production and the growing demand for food security have led to an increase in the acquisition of agricultural land by foreign investors in developing countries. While such investments are often seen as a tool for the development of host countries, there are growing concerns that they may have negative consequences, particularly for rural producers. Developing and monitoring qualified national policies for agricultural land, forest land, and specially protected land, which are characterized by their sensitivity to economic, legal, and demographic changes, as well as for agricultural land, forest land, and land under special protection, which are also referred to as restricted and limited, are among the issues that need to be given more attention in the context of the transformation of real estate assets into global capital in order to prevent land grabbing and speculation and to support rural development goals by protecting agricultural communities. In this study, the practice of real estate acquisition by foreigners within the scope of free market economies and the regulations to be made by states in their sovereignty areas will be discussed through agricultural lands and the prominent arguments and examples of different countries will be analyzed. In the case of Türkiye, the regions with the highest number of agricultural lands acquired by foreigners after the regulations on the sale of real estate to foreigners changed with Law No. 6302 in 2012 are analyzed through secondary data. The qualities of the relevant agricultural lands and the changes that occurred after the acquisition by foreigners are analyzed through SWOT analysis and TOWS matrix. On the other hand, Türkiye's current land management policies are discussed in the context of the concepts of qualified foreign investment, the legal framework of foreign real estate acquisition and national interest, and the requirements for Türkiye to create a unique model among emerging economies are emphasized.

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**Key Words:** Land management policies, emerging economies, free market economy, agricultural land, real estate acquisition by foreigners

### Özet

Tarımsal üretimin küreselleşmesi ve gıda güvenliğine yönelik artan talep ile gelişmekte olan ülkelerde yabancı yatırımcıların tarım arazisi ediniminde bir artışa yol açtığı bilinmektedir. Söz konusu yatırımlar genellikle ev sahibi ülkelerin kalkınması için bir araç olarak ele alınsa da özellikle kırsal kesimdeki üreticiler için olumsuz sonuçlar doğurabileceğine yönelik endişeler giderek daha fazla tartışılmaktadır. Gayrimenkul varlıklar arasında ekonomik, yasal ve demografik değişikliklere karşı barındırdığı hassasiyet ile karakterize edilen; aynı zamanda kısıtlı ve sınırlı olarak anılan tarım arazileri, orman arazileri ve özel koruma altındaki araziler için nitelikli ulusal politikalar geliştirilmesi ve takip edilmesi hem arazi gaspının ve spekülasyonunun önlenmesi hem de tarım topluluklarının korunarak kırsal alandaki kalkınma hedeflerinin desteklenmesi gibi amaçlar doğrultusunda gayrimenkul varlıkların küresel sermayeye dönüşmesi bahsinde daha fazla önem atfedilmeye muhtaç konular arasındadır. Bu çalışmada serbest piyasa ekonomisi ile devletlerin egemenlik alanlarında yapacağı düzenlemeler kapsamında yabancıların gayrimenkul edinimi pratiği tarım arazileri üzerinden ele alınacak ve öne çıkan argümanlar ile farklı ülke örnekleri analiz edilmektedir. Türkiye örneğinde ise 2012 yılında 6302 Sayılı Kanun ile değişen yabancılara taşınmaz satışı düzenlemeleri sonrasında yabancılar tarafından edinilen tarım arazilerinin en yüksek olduğu bölgeler ikincil veriler üzerinden incelenmektedir. İlgili tarım arazilerinin nitelikleri ve yabancıların edinimi sonrası oluşan değişiklikler SWOT analizi ve TOWS matrisi ile irdelenmektedir. Öte yandan Türkiye'nin halihazırdaki arazi yönetimi politikaları, nitelikli yabancı yatırım, yabancıların gayrimenkul ediniminin yasal çerçevesi ve ulusal çıkar kavramları bağlamında tartışılarak gelişmekte olan ekonomiler arasında kendine has bir model oluşturması için gereksinimleri üzerinde durulmaktadır.

**Anahtar Kelimeler:** Arazi yönetimi politikaları, gelişmekte olan ekonomiler, serbest piyasa ekonomisi, tarım arazileri, yabancıların gayrimenkul edinimi



## **Analysis of Sustainable Facility Management Performance in Campuses: The Case of Ankara University Beşevler Campus**

***/ Kampüslerde Sürdürülebilir Tesis Yönetimi Performansının Analizi:  
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### **Abstract**

University campuses support university-related functions and core activities such as teaching, research, and learning. The primary way universities gain an advantage in global competition is to provide their users with versatile facilities and high-quality services. Developing sustainable facility management models is vital for different stakeholders in this context. The campuses of higher education institutions, which bring together many other stakeholders, especially students, academics, and administrative staff, and have different real estate, constitute a significant data source regarding management. Within the scope of the Beşevler campus, the possibilities of developing a management model in university campuses are put forward based on legal regulations and judicial decisions, analysis of actual management structures, and the results of field studies. Due to the small number of education buildings in the research area, administrative and academic staff and service personnel within the campus were determined as users. This research aims to develop facility management approaches in university campuses and examine the possibilities of successful implementation by evaluating the questionnaire results applied to the users and the relevant judicial decisions. Since facility and real estate management is a new science and profession in Türkiye, very few researchers are working in this field, and it is noteworthy that there are no courses on the subject in most of the relevant programs other than real estate development and management departments of universities and the number of researches is minimal. By examining

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and evaluating the implementation possibilities of the proposed management model on campuses, it is possible to contribute to both those working in the field of facility management and to the literature in the field of facility and real estate management, which has almost no research, and to identify the problems arising from legislation and practice and to put forward solution suggestions. The research results emphasize that a significant increase in user satisfaction will be observed by establishing facility management units on campuses similar to the examples abroad and evaluating facility management in terms of social, economic, and financial sustainability.

**Key Words:** Sustainability, user satisfaction, campus facilities management, performance evaluation

### Özet

Üniversite kampüsleri, üniversite ile ilgili işlevler ile öğretim, araştırma ve öğrenim gibi temel faaliyetleri desteklemek için kullanılmaktadır. Üniversitelerin küresel rekabette avantaj elde edebilmelerinin temel yolu, kullanıcılarına çok yönlü tesisler ve yüksek kaliteli hizmetler sunmaktan geçmektedir. Söz konusu kapsamda sürdürülebilir tesis yönetimi modellerinin geliştirilmesi, farklı paydaşlar açısından önemli bir rol oynamaktadır. Öğrenciler, akademisyenler ve idari personel başta olmak üzere birçok farklı paydaşı bir araya getiren ve farklı gayrimenkullere sahip olan yüksek öğretim kurumlarının kampüsleri, yönetim açısından çok önemli bir veri kaynağı teşkil etmektedir. Beşevler yerleşkesi kapsamında üniversite kampüslerinde yönetim modelinin geliştirilmesi olanakları; hem yasal düzenleme ve yargı kararları hem fiili yönetim yapılarının analizi hem de saha çalışmalarının sonuçlarına dayalı olarak ortaya konulmaktadır. Araştırma alanında eğitim binasının az sayıda olmasından dolayı kampüs içerisinde bulunan idari ve akademik personel ile hizmet personeli kullanıcılar olarak belirlenmiştir. Kullanıcılara uygulanmış olan anket sonuçları ile ilgili yargı kararlarının birlikte değerlendirilmesi yoluyla genel olarak üniversite kampüslerinde tesis yönetimi yaklaşımlarının geliştirilmesi ve başarılı uygulama yapabilme olanaklarının irdelenmesi amaçlanmaktadır. Türkiye’de tesis ve gayrimenkul yönetiminin yeni bir bilim dalı ve meslek olması nedeni ile çok az sayıda araştırmacı bu alanda çalışmakta ve üniversitelerin gayrimenkul geliştirme ve yönetimi bölümleri dışında ilgili diğer programların birçoğunda konu ile ilgili derslerin yer almadığı ve araştırma sayılarının da çok sınırlı olduğu dikkati çekmektedir. Kampüslerde önerilen yönetim modelinin uygulama olanaklarının incelenmesi ve değerlendirilmesi yoluyla hem tesis yönetimi alanında çalışanlara hem de hemen hemen hiç araştırma yapılmamış olan tesis ve gayrimenkul yönetimi bilim dalında literatüre katkı yapılması ve mevzuat ile uygulamadan kaynaklanan sorunların tanımlanarak çözüm önerilerinin ortaya konulması mümkün olabilmektedir. Araştırma sonuçları ile yurtdışındaki örneklere benzer şekilde kampüslerde tesis



yönetimi birimlerinin kurulması ve tesis yönetiminin ekonomik ve finansal sürdürülebilirliđin yanı sıra sosyal sürdürülebilirlik açısından değerlendirilmesi ile kullanıcı memnuniyetinde önemli bir artış gözleneceđi vurgulanmaktadır.

**Anahtar Kelimeler:** Sürdürülebilirlik, kullanıcı memnuniyeti, kampüslerde tesis yönetimi, performans değerlendirme



## Utilization of Sweden's Renewable Energy Strategies for Sustainable PV Park Site Selection in Türkiye */ Türkiye'de Sürdürülebilir PV Park Alanı Seçimi için İsveç'in Yenilenebilir Enerji Stratejilerinden Yararlanma*

Ümmühan Yolcuoğlu<sup>1</sup>

### Abstract

The global climate crisis has increased the demand for renewable energy solutions, with solar photovoltaic (PV) systems playing a vital role in transitioning to sustainable energy production. This study focuses on developing a sustainable PV park site selection methodology for Türkiye, using insights gained from Sweden's successful renewable energy initiatives. Despite Türkiye's abundant solar resources, PV energy production remains comparatively low. One primary reason is the inadequate site selection processes that do not fully incorporate environmental, economic, and social sustainability criteria. In contrast, Sweden has made considerable progress in renewable energy, fulfilling nearly two-thirds of its energy consumption from sustainable sources and offering an effective site selection model that balances technical feasibility, environmental protection, and societal benefits. This study aims to propose an adapted methodology to optimise PV site selection in Türkiye by conducting a comparative analysis of PV park site selection processes in Sweden and Türkiye. The proposed framework integrates Geographic Information Systems (GIS), Multi-Criteria Decision Analysis (MCDA), and other tools to assess key factors such as solar radiation, proximity to infrastructure, environmental impacts, and social acceptance. This methodology seeks to enhance energy production efficiency and ensure that renewable energy projects contribute to sustainable regional development, ecological protection, and social well-being. This research emphasises that Türkiye should adopt a holistic approach to PV site selection. By learning from Sweden's regulatory frameworks, stakeholder engagement practices, and innovative financial incentives, Türkiye can improve the sustainability and efficiency of PV park projects. Consequently, it can contribute to combating global climate change by aligning with the country's renewable energy targets.

**Key Words:** Solar Photovoltaic (PV) systems, sustainability, site selection, real estate development

### Özet

Küresel iklim krizi, yenilenebilir enerji çözümlerine olan talebi hızlandırmış ve güneş fotovoltaik (PV) sistemleri, sürdürülebilir enerji üretimine geçişte kritik bir rol oynamaktadır. Bu tez, İsveç'in yenilenebilir enerji alanındaki başarılı uygulamalarından elde edilen içgörülerden yararlanarak, Türkiye için sürdürülebilir bir PV parkı yer seçimi

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metodolojisi geliřtirmeye odaklanmaktadır. Türkiye'nin bol güneř kaynaklarına sahip olmasına raėmen, PV enerji üretimi nispeten düşük seviyelerde kalmaktadır. Bunun başlıca nedenlerinden biri, çevresel, ekonomik ve sosyal sürdürülebilirlik faktörlerini tam anlamıyla entegre edemeyen verimsiz yer seçimi süreçleridir. Buna karşılık, ısveç, enerji tüketiminin neredeyse üçte ikisini sürdürülebilir kaynaklardan karşılayarak yenilenebilir enerji alanında önemli ilerlemeler kaydetmiştir ve teknik uygulanabilirlik, çevresel koruma ve toplumsal faydalar arasında denge kuran etkili bir yer seçimi modeli sunmaktadır. Çalışma, ısveç ve Türkiye'deki PV parkı yer seçimi süreçlerinin karşılařtırmalı bir analizini yaparak, Türkiye'de PV yer seçimini optimize etmeye yönelik uyarlanmış bir metodoloji önermeyi amaçlamaktadır. Önerilen çerçeve, güneř ışıınımı, altyapıya yakınlık, çevresel etkiler ve toplumsal kabul gibi temel faktörleri deėerlendirmek için Coėrafi Bilgi Sistemleri (CBS), Çok Kriterli Karar Analizi (ÇKKA) ve diėer araçları entegre etmektedir. Bu metodoloji, yalnızca enerji üretim verimliliėini artırmayı deėil, aynı zamanda yenilenebilir enerji projelerinin sürdürülebilir bölgesel kalkınmaya, ekolojik korumaya ve toplumsal refaha katkı saėlamasını hedeflemektedir. Bu arařtırma, Türkiye'nin PV yer seçimi sürecine bütüncül bir yaklařım benimsemesi gerektiėini vurgulamaktadır. ısveç'in düzenleyici çerçevelerinden, paydař katılımı uygulamalarından ve yenilikçi finansal teşviklerinden alınacak derslerle Türkiye, PV park projelerinin sürdürülebilirliėini ve verimliliėini artırabilir. Böylece, ülkenin yenilenebilir enerji hedefleriyle uyumlu bir şekilde hareket ederek küresel iklim deėiřikliėiyle mücadeleye katkıda bulunabilir.

**Anahtar Kelimeler:** Güneř Fotovoltaik (PV) Sistemleri, sürdürülebilirlik, yer seçimi, gayrimenkul geliřtirme.



## Ethiopia's Real Estate Market in a Market-Driven Currency System: Navigating Risks and Opportunities

Seid Dessalegn Shafi<sup>1</sup>  
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### Abstract

The new Ethiopia's market-based foreign exchange system in which currency values change proportionally to supply and demand is going to have a big impact on the country's residential and commercial real estate sectors. The depreciation of the Ethiopian Birr raises the expense of importing building materials, which lowers housing affordability and drives up real estate prices. In contrast, foreign investors are attracted to weaker currencies as they may purchase real estate for a lesser price. However, while an appreciation in the local currency reduces import costs, it may discourage foreign investment.

Foreign Direct Investment (FDI) benefits from a more transparent market-based structure, which increases liquidity and reduces the risks associated with profit repatriation. However, some investors may be discouraged by volatility brought forth by currency fluctuations. The devaluation of currency leads to an increase in borrowing costs for domestic buyers, resulting in decreasing the affordability of housing. Commercial real estate also faces higher financing costs, which could slow development.

The system has an impact on inflation, with currency depreciation raising costs and impacting real estate affordability. Foreign investors may seek real estate as a currency hedge, boosting demand in high-end markets. While reduced foreign exchange controls could improve liquidity, they also raise risks of capital flight, destabilizing the real estate market.

Overall, Ethiopia's real estate markets face both opportunities and challenges as they transition to a market-based foreign exchange system, which will affect property valuations, investment flows, and development costs. Long-term market stability will depend on these financial risks being effectively managed.

**Key Words:** Market-based foreign exchange, real estate markets, currency depreciation, FDI, housing affordability

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## **Legislative Framework for Real Estate Development and Management in Ethiopia: A Comparison with the US - Georgia System**

**Melkamu Belachew Moges <sup>1</sup>**

### **Abstract**

Land management in general and real estate market in particular may not be fully addressed without recourse to their regulatory foundations. On the other hand, real estate is a typical example of land development. In this light, this paper attempts to analyze the legislative framework for land management with a particular attention to land development in the real estate sector. It approaches the research process with analytical and content analysis of the Ethiopian relevant policy and legislative framework, its strengths and weaknesses. Further, it aims to apply a comparative approach with the land development policy system of the United States with a particular focus on the case of the State of Georgia. The paper will have implications for further research in regulatory frameworks thereby encouraging researchers and policy makers across the globe to think and work towards a robust legislative and policy framework in land management.

**Key Words:** Land management, real estate development, legislative framework, policy analysis, comparative approach

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## **Determinants of Housing Price in Ethiopia: Evidences from Debre Markos Town**

**Haymanot Asrat Mekonnen<sup>1</sup>**  
**Habtamu Bishaw Asres<sup>2</sup>**

### **Abstract**

This study aims to gain a basic understanding of the primary factors that determine the price of residential houses in Debre Markos City. To achieve this objective, a quantitative research approach with a survey research design was employed. Cross-sectional data were used about sales price and other independent variables were used. Sales price of houses were used to develop hedonic price models. A total of 235 houses were included in the sample, with 115 from wooden houses and 120 from Hollow Concrete Block (HCB) houses. Two separate models were used for wooden and HCB houses. The study identified that plot area, economic zone, age, floor finishing material, and wall finishing material were statistically significant predictors of sales price for wooden. On the other hand, plot area, built-up area, location, age, number of rooms, wall finishing material, and the direction of the house were statistically significant predictors of sales price for HCB houses. The study recalls that the significant predictors of house price should be included for the proper specification of hedonic housing price models. In this regard, the city can use these models for property tax calculation and other property value estimation purposes.

**Key Words:** Housing price, hedonic price, determinants, Ethiopia

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## **Bibliometric Analysis of Studies on the Concepts of Real Estate Sector and Global Financial Crisis with VOSviewer / Gayrimenkul Sektörü ve Küresel Finansal Kriz Kavramları Üzerine Yapılan Çalışmaların VOSviewer ile Bibliyometrik Analizi**

Gizem Ulusoy<sup>1</sup>  
Nuri Semih Öz<sup>2</sup>

### **Abstract**

In the study, the existing literature was quantified to understand the extent of the literature with the main goal of mapping the research history on financial crises inside the real estate industry. Publications outside the database used (Web of Science) constitute the limitations of the study. The role of the real estate sector, or the fact that it is one of the key sectors affected by the consequences of crises, has consistently occupied the economic agenda during various periods of the liberal economic order, manifesting during financial crises that are sometimes global, sometimes regional, and sometimes at the country level. Presenting a systematic summary of the existing literature on the subject for researchers by using bibliometric analysis and to identify the study trends and gaps related to the concept. In this way, an important road map is presented for those who will study on this subject. The unit of analysis is based on the bibliometric data of different types of documents reviewed in the Web of Science database and published between 1975 and 2023, and the number of documents is used in weighting. A total of 1077 published documents, in which the concepts of “financial crises and real estate sector” were examined together, have been identified in the Web of Science index. The three disciplines with the highest distribution of publications in terms of research areas are economics (43%), finance (42%) and urban studies (18%). An analysis of the distribution according to publication years concludes that the popularity of the subject increased between 2009 and 2022. Liow, KH, Newell, G. and Hui, ECM were found to have published the most documents. The type of publication was mainly journal articles and book chapters. in terms of the distribution of publications by country, it was determined that the publishers originating from the USA (289), China (203) and the UK (103) were in the lead. Documents were published mainly in English (1029), Spanish (13) and German (6). The analysis reveals that the

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most frequently used keywords are “financial crisis; real estate; global financial crisis; REIT; financialisation; housing”.

**Key Words:** Financial crisis, Real estate, REIT, Global financial crisis, Housing market

### Özet

Bu çalışmada, finansal krizleri gayrimenkul sektörü bağlamında ele alan çalışmalar özelinde kavramın evriminin ve yapılan çalışmaların haritasını çıkarmak hedeflenmiştir. Çalışmada, mevcut literatür numerik hale getirilerek nicelleştirilme sağlanmış ve literatüre dair genişliğin ne düzeyde olduğunun anlaşılması amaçlanmıştır. Kullanılan veri tabanı (Web of Science) dışında kalan yayınlar çalışmanın sınırlılıklarını oluşturmaktadır. Liberal ekonomik düzenin çeşitli dönemlerinde kimi zaman küresel, kimi zaman bölgesel kimi zamansa ülkeler düzeyinde görülen finansal krizlerde gayrimenkul sektörünün rolü ya da krizin sonuçlarından etkilenen kilit sektörlerden biri olması her zaman ekonomik gündemi meşgul etmiştir. Konuya ilişkin mevcut yazının bibliyometrik analiz kullanılarak sistemli bir özeti araştırmaçuların dikkatine sunulması, kavramla ilgili çalışma eğilimlerinin ve boşlukların tespiti amaçlanmıştır. Böylelikle bu konu üzerinde çalışacaklar için önemli bir yol haritası ortaya konmaktadır. Analiz birimi olarak Web of Science veri tabanında taranan ve 1975-2025 yılları arasında yayınlanmış farklı türdeki eserlerin bibliyometrik verisi baz alınmış ve ağırlıklandırmalarda doküman sayısı kullanılmıştır. “Finansal krizler ve gayrimenkul sektörü” kavramlarının bir arada kullanıldığı çalışmalar kapsamında Web of Science indexinde taranan 1077 adet yayımlanmış esere ulaşıldı. Yayınların araştırma alanları açısından en çok dağılım gösterdiği üç disiplin %43 oranında ekonomi, %42 oranında finans ve %18 oranında kent çalışmaları şeklindedir. Yayın yıllarına göre dağılımına bakıldığında, 2009- 2022 yılları arasında konunun popülerliğinin arttığı kanısına varılmaktadır. En fazla eser veren isimlerin Liow, K. H., Newell, G. Ve Hui, E.C.M. olduğu; yayın türünün ağırlıklı olarak dergi makalesi ve kitap bölümü türünde olduğu; yayınların ülkelere göre dağılımı konusunda A.B.D. (289), Çin (203) ve İngiltere (103) menşeli yayıncıların önde olduğu; başta İngilizce (1029) olmak üzere İspanyolca (13) ve Almanca (6) eserler yayınlandığı tespit edilmiştir. Yapılan analizde en sık kullanılan anahtar sözcükler arasında “finansal kriz gayrimenkul, küresel finansal kriz, GYO, finansallaşma, konut” ifadelerinin öne çıktığı anlaşılmaktadır.

**Anahtar Kelimeler:** Finansal kriz, gayrimenkul, GYO, küresel finansal kriz, konut piyasası



## **Location, Branding, Comfort: Analysis of Factors Affecting Real Estate Values of New Residential Developments in Belgrade**

**Aleksandra Djukic<sup>1</sup>**  
**Jelena Brajkovic<sup>2</sup>**

### **Abstract**

Many studies and market analyses emphasize the importance of location as a key factor in determining real estate prices. More attention is also being given to the impact of branding on property value, as developers increasingly use branding strategies across various aspects to remain competitive in the real estate market. However, the comfort and needs of modern real estate users have not been fully acknowledged as crucial factors. As cities evolve into interconnected urban networks, factors such as overall connectivity, efficiency, mobility, and the immediate availability of services and goods have become essential in choosing the place of living. Moreover, today's tenants have diverse and sophisticated expectations regarding the quality of urban life, including multifunctional spaces, maintenance, safety, greenery, and scenic views. New trends in urban living, lifestyle habits, and work demands have introduced additional elements that influence the appeal of real estate and, consequently, its value and price.

This paper examines the impact of various factors on the values of new residential developments in Belgrade, Serbia, built in the 21st century. Multiple case studies offer a structured analysis of the factors affecting real estate prices, leading to a discussion on emerging trends and their relationship to traditional factors such as location and property condition. The research methodology includes an extensive literature review, market price analysis, and data collection through questionnaires distributed to residents of the selected case studies. Questionnaires aimed to identify and rank the factors that influence the appeal of the real estate units. The main findings of the research highlight the importance of the relevant factors and their ranking in determining residential real estate prices in Belgrade.

**Key Words:** Location, branding, comfort, residential real estate, Belgrade

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## **Wearable Lidar Technology and Its Usability in Cadastral Surveying**

### **/ *Giyilebilir Lidar Teknolojisi ve Kadastro Ölçümünde Kullanılabilirliği***

**Murat Yakar<sup>1</sup>**

#### **Özet**

Giyilebilir LiDAR (Wearable LiDAR), bir kullanıcının taşıyabileceği şekilde tasarlanmış, taşınabilir bir LiDAR sistemidir. Bu sistemler, geleneksel LiDAR teknolojisinin kompakt hale getirilmiş versiyonları olup, genellikle insan hareketine bağlı olarak veri toplama ihtiyaçlarını karşılamak amacıyla geliştirilmiştir. Giyilebilir LiDAR sistemleri, ulaşılması zor alanlar veya karmaşık çevrelerde haritalama, modelleme ve ölçüm gibi işlemleri daha hızlı ve etkili bir şekilde gerçekleştirme olanağı sunmaktadır. LiDAR teknolojisi, teknolojik yeniliklerin hızla ilerlemesiyle birlikte haritacılık alanında önemli bir yer edinmiştir. 2000'li yıllarda mobil LiDAR teknolojisi, hareket edebilen araçlar ile veri toplama süreçlerinde kullanılmaya başlanmış ve günümüzde Giyilebilir Mobil LiDAR (GML) sistemleriyle bu teknoloji daha da geliştirilmiştir. Kadastro haritaları, günümüzde genellikle yersel ölçüm ve fotogrametrik tekniklerle üretilmektedir. Ancak, GML teknolojisinin kadastro çalışmalarındaki uygulanabilirliği üzerine yapılan araştırmalar oldukça sınırlıdır. Bu çalışmada, GML'nin kadastro haritalarının üretiminde kullanılma potansiyeli detaylı bir şekilde değerlendirilmiştir.

**Anahtar Kelimeler:** LiDAR, giyilebilir mobil LiDAR, fotogrametri, kadastro

#### **Abstract**

Wearable LIDAR is a type of LIDAR system designed to be carried by a user. These systems are portable versions of traditional LIDAR technology, developed to meet data collection requirements based on human movement. Wearable LIDAR systems enable faster and more efficient mapping, modeling, and measurement in areas that are difficult to access or in complex environments. LIDAR technology has gained significant importance in the field of cartography with the rapid advancements in technological innovations. In the 2000s, mobile LIDAR systems began to be used for data collection processes with moving vehicles. Today, this technology has further advanced with Wearable Mobile LIDAR (GML) systems. Currently, cadastral maps are typically produced using terrestrial measurements and photogrammetric techniques. However, studies on the applicability of GML technology in cadastral mapping remain quite limited. This study evaluates the potential use of GML in the production of cadastral maps.

**Key Words:** LIDAR, wearable mobile LIDAR, photogrammetry, cadastre

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## **The Effect of Employee Attitude Towards Artificial Intelligence Applications on Individual Job Performance** **/ Yapay Zekâ Uygulamalarına Yönelik İşgören Tutumunun Bireysel İş Performansına Etkisi**

**Mustafa Koray Erentürk<sup>1</sup>**

### **Abstract**

Artificial intelligence (AI) based technologies and tools bring about significant changes, transformations and innovations in the business world. In this context, AI can lead to different attitudes as it takes employees out of their usual work and business processes, requires a relatively certain training, and changes human-human and human-machine relationships. In this study, the effect of employee attitudes towards artificial intelligence applications on individual job performance was examined with the participation of 328 participants working in businesses operating in the service sector in Istanbul. As a result of the study, it was seen that the relationship between the positive attitudes of employees towards artificial intelligence and their job performance was moderately positive; and there was also a moderately positive relationship between the general job performance of employees and their positive attitude behaviors. It was observed that as the positive attitudes and behaviors of employees towards artificial intelligence applications increased, their general job performance also increased. In this context, the one with the highest correlation with the positive attitude towards artificial intelligence was contextual performance. When the relationship between negative attitudes towards artificial intelligence and job performance is examined, it is seen that there is a low level and negative relationship. It is seen that as the negative attitudes of the employees towards artificial intelligence applications increase, their general job performance decreases. It is also seen that the employees with low general job performance have more negative attitudes towards artificial intelligence applications.

**Key Words:** Artificial intelligence, employee, attitude, performance, business, management

### **Özet**

Yapay zekâ (YZ) temelli teknoloji ve araçlar, iş dünyasında önemli değişim, dönüşüm ve yenilikleri beraberinde getirmektedir. Bu kapsamda YZ, işgörenleri alışılmış çalışma ve iş süreçlerinin dışına çıkardığından, görece belli bir eğitim gerektirdiğinden, insan-insan ve insan-makine ilişkilerini değiştirdiğinden farklı

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tutumların ortaya çıkmasına yol açabilmektedir. Bu çalışmada, İstanbul ilinde faaliyet gösteren ve hizmet sektöründe yer alan işletmelerde çalışan 328 katılımcının iştirakiyle yapay zekâ uygulamalarına yönelik işgören tutumunun bireysel iş performansına etkisi incelenmiştir. Çalışma sonucunda işgörenlerin yapay zekaya yönelik sergiledikleri pozitif tutumlar ile iş performansları arasındaki ilişkinin pozitif yönlü orta derecede olduğu; işgörenlerin genel iş performansı ile pozitif tutum davranışları arasında da orta düzeyde pozitif yönlü bir ilişki olduğu görülmüştür. İşgörenlerin yapay zekâ uygulamalarına yönelik sergiledikleri pozitif tutum ve davranışları arttıkça onların genel iş performanslarının da arttığı görülmüştür. Bu kapsamda yapay zekaya yönelik pozitif tutum ile korelasyonu en yüksek olan bağlamsal performanstır. Yapay zekaya karşı sergilenen negatif tutumlar ile iş performansı arasındaki ilişkiye bakıldığında düşük düzeyde ve negatif yönlü bir ilişki olduğu görülmüştür. İşgörenlerin yapay zekâ uygulamalarına yönelik negatif tutumları arttıkça genel iş performanslarının da azaldığı görülmüştür. Ayrıca genel iş performansı düşük olan işgörenlerin yapay zekâ uygulamalarına karşı daha negatif tutum sergiledikleri görülmüştür.

**Anahtar Kelimeler:** Yapay zekâ, işgören, tutum, performans, işletme, yönetim



## **Development of a Capability Maturity Model for Digital Transformation of Facility Management Businesses / Tesis Yönetimi İşletmelerinin Dijital Dönüşümü İçin Bir Yetkinlik Olgunluk Modeli Geliştirilmesi**

**Emir Sunguroğlu<sup>1</sup>  
Yeşim Tanrıvermiş<sup>2</sup>**

### **Abstract**

Digital transformation is an inevitable process for businesses aiming to leverage technology and enhance their competitive edge. However, uncertainty regarding how to design and implement this transformation poses a significant challenge. In this context, the capability maturity model approach emerges as a widely recognized tool. Businesses operating in the field of facility management face similar challenges, while simultaneously witnessing rapid advancements in facility management expertise and technologies. These businesses often address their need for guidance in digital transformation through qualified human resources, though not all enterprises have access to such capabilities. Therefore, developing a digital transformation capability maturity model to meet the guidance needs of facility management businesses has been deemed necessary. In the study, the evaluation criteria in the development of the model in question were determined through semi-structured interviews, and then the model was proposed by utilizing digital transformation capability maturity models developed for use in other sectors in the literature. The proposed model was applied to a business operating in the field of facility management in Türkiye, the status of the business in the digital transformation process was evaluated, and a roadmap was proposed. Feedback from the implementation revealed that the model is not limited by country-specific constraints and is globally applicable. Recommendations were made to enhance the model, emphasizing the need for focused studies in this area and addressing the demand for qualified workforce in the digital transformation of facility management.

**Key Words:** Digital transformation, capability maturity model, facility management, digitalization, facility technologies

### **Özet**

Dijital dönüşüm, teknolojiyi takip ederek kazanımlar elde etmeyi amaçlayan ve özellikle rekabet gücünü artırmak isteyen işletmeler için kaçınılmaz bir süreçtir. Ancak, bu dönüşümün nasıl kurgulanıp uygulanacağı konusundaki belirsizlik temel

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bir engeldir. Bu süreçte, yetkinlik olgunluk modeli yaklaşımı yaygın bir araç olarak öne çıkmaktadır. Tesis yönetimi alanında faaliyet gösteren işletmeler de bir yandan aynı engel ile karşı karşıyayken, diğer yandan tesis yönetimi uzmanlığı ve teknolojileri hızla gelişim göstermektedir. Bu işletmeler dijital dönüşümlerinde ihtiyaç duydukları rehberliği nitelikli insan kaynağı ile gidermekte, ancak her işletme bu olanağa sahip olamamaktadır. Bu nedenlerle tesis yönetimi alanında faaliyet gösteren işletmelerin kılavuz ihtiyacını karşılamaya yönelik bir dijital dönüşüm yetkinlik olgunluk modeli geliştirilmesi gerekli görülmüştür. Çalışmada, önce yapılandırılmış görüşmeler yoluyla söz konusu modelin geliştirilmesindeki değerlendirme kriterleri belirlenmiş, sonrasında literatürde başka sektörlerde kullanılmak üzere geliştirilmiş dijital dönüşüm yetkinlik olgunluk modellerinden de yararlanılarak model önerilmiştir. Önerilen model Türkiye’de tesis yönetimi alanında faaliyet gösteren bir işletmeye uygulanmış, işletmenin dijital dönüşüm süreci içindeki durumu değerlendirilmiş ve yol haritası önerilmiştir. Uygulamadan elde edilen geri bildirim ile, modelin uygulanmasında ülke sınırlaması bulunmadığı ve küresel düzeyde uygulanabilir olduğu görülmüş, modele önerilerde bulunulmuş, bu alanda yoğunlaşacak çalışmalara duyulan ihtiyaç ve tesis yönetiminde dijital dönüşüm alanında görülen nitelikli iş gücü gereksinimi vurgulanmıştır.

**Anahtar Kelimeler:** Dijital dönüşüm, yetkinlik olgunluk modeli, tesis yönetimi, dijitalleşme, tesis teknolojileri



## Home Credit Risk Modelling with the Fuzzy Regression Functions Method

### */ Bulanık Regresyon Fonksiyonları Yöntemi ile Konut Kredisi Riski Modellemesi*

Elif Hande Edinsel<sup>1</sup>

Furkan Başer<sup>2</sup>

#### Abstract

Especially after recent financial crises around the world, the ability to predict credit risk has become an important issue. If financial institutions can accurately identify credit risk, they can take measures such as not granting loans to applicants or requesting additional collateral, which allows them to minimize credit risk as much as possible. To make data-driven decisions regarding loan provision, these financial institutions utilize credit risk assessment models. However, by nature, the distribution of risky and non-risky individuals to be analyzed is imbalanced, and this generally leads to a biased outcome in favor of the majority class in classification problems. Particularly when risky individuals are in the minority, identifying minority cases becomes more critical, which poses a challenge.

In this study, the “Fuzzy Regression Functions (FRF)” approach has been used to assess housing loan risk. The aim of the FRF approach is to improve the performance of traditional machine learning methods, and a resampling method has been employed to address the imbalanced dataset issue. The dataset used in the study is open-source, and the findings have been evaluated with different performance criteria. It has been determined that when the resampling approach is used in imbalanced datasets in different applications, the FRF approach achieves a higher classification accuracy compared to traditional machine learning methods.

**Key Words:** Credit risk, home credit risk, machine learning algorithms, fuzzy regression functions

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## Developing a GIS tool to Analyze Housing Price Variability in Urban Regions Case Study Ankara

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### Abstract

Ankara's population has grown by 5.35%, from 5,118,000 in 2020 to 5,397,000 in 2023, expanding the inhabited areas and requiring advanced urban analysis tools. The paper introduces a customized Geographic Information System (GIS) application, developed with MapInfo, Visual Studio, and C#, to analyze and visualize housing price distributions through heat maps, Thiessen polygons, and comparison tools that reveal how various factors influence housing prices. The GIS application is a key tool for urban planners, real estate developers, and researchers, offering features like visualizing histograms of variables across price intervals and districts, and options to sort and zoom into specific neighborhoods. These tools enable a detailed exploration of spatial heterogeneity in the housing market, clarifying complex dynamics. It is aimed to present the GIS application's analytical capabilities by integrating advanced spatial analysis methods, including Ordinary Least Squares (OLS) and Geographically Weighted Regression (GWR). These models reveal the relationships between housing prices and factors like proximity to transportation, hospitals, universities, shopping malls, banks, schools, and supermarkets. The results, visualized through the application, confirm spatial heterogeneity in housing prices across Ankara, particularly higher prices in the western regions due to key amenities such as proximity to transportation. The application highlights Çankaya's unique characteristics, requiring separate analysis. As well as, a local analysis of Kızılay and Çayyolu shows that factors like transportation access and proximity to schools drive higher housing prices, especially in Çayyolu. This emphasizes the importance of neighborhood-level investigations to understand the dynamics influencing housing prices in different areas of Ankara.

**Key Words:** GIS, spatial analysis, housing prices, spatial heterogeneity, Türkiye

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## Impact of Airbnb Activity on London's Rental Market

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### Abstract

The sharing economy has witnessed substantial growth in recent years, with Airbnb emerging as the world's largest peer-to-peer platform in the housing sector. However, this expansion has been met with criticism regarding its potential impact on the housing market dynamics. Numerous international studies have highlighted a noteworthy correlation between Airbnb's activities and an escalation in rental costs and housing prices, underscoring its influence on housing availability and affordability.

This paper examines the evidence of Airbnb's influence on the rental market in London through a mixed-methods approach. Adopting an abductive methodology, the study generates hypotheses following an exhaustive literature review, subsequently subjecting them to scrutiny via quantitative analysis of secondary data and semi-structured interviews.

The findings fundamentally challenge the classification of Airbnb within the sharing economy, revealing it to align more closely with a conventional business model. The empirical data distinctly points to Airbnb's impact on both rental availability and pricing dynamics, in densely concentrated areas. This influence is primarily attributed to the practice known as Airbnb Arbitrage, whereby properties are leased within the long-term rental market and then sublet on the Airbnb platform. The regulatory framework governing Airbnb operations in London emerges as markedly ineffective in mitigating these impacts.

**Key Words:** Airbnb, housing market, house prices, rental values, supply shortage

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## **Are Residential Crimes the Same? Evidence from the Link Between House Prices and Crime Levels in Johannesburg**

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**Peterson Owusu Junior<sup>2</sup>**

### **Abstract**

We examine the extent to which crime levels explain residential property prices in South Africa using the hedonic pricing approach. We employ residential related crimes (burglary and robbery) as well as control for effects of structural property attributes (i.e. property size). A total of 86,997 property repeat sales transactions covering seven towns in Johannesburg City of the Gauteng province and crime levels between 2010 and 2020 were used, sourced from Lightstone Property (Ltd) and the South African Police Service (SAPS), respectively. The province is chosen for its dense population, highest crime rates across the country, and highest demand for housing in South Africa. First, we find that house prices are largely independent of crime levels and property prices and could be attributed to the high demand province. Second, for two most crime-prone towns (Alexandra and Soweto) the results are revealing. In Alexandra, burglary and property size have inverse and direct relationship with house prices, respectively, as expected. However, in Soweto, robbery has direct while burglary has indirect nexus and property size has direct link with house prices. Third, the results from the other towns bear semblance with those of Alexandra in terms of the explanatory effect of robbery on house prices. Burglary and property size explain house prices in their expected directions in Midrand, Randburg, Roodeport, Orange Farm, and Johannesburg. These findings proffer a re-think on the general narrative about the expected effect of location-dependent crime levels on housing demand and prices. Our findings are essential to inform on the type of crime, location of crime, and residential property pricing in policy development and planning in the housing market as well as security and criminal justice system. Implications of this study can stimulate research for other populated parts of South Africa and beyond.

**Key Words:** Hedonic price, crime rate, house price, SAPS, Johannesburg, South Africa

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## Community Infrastructure Levy (CIL): Unlocking Local Development

Burak Çetindağ<sup>1</sup>

### Abstract

The Community Infrastructure Levy (CIL), introduced by the UK government in 2010, is a critical tool in financing the infrastructure needed to support local development. This planning charge is usually applied per square meter of new development, offering flexibility for local authorities to tailor rates to meet specific community needs. CIL's standardised, non-negotiable nature distinguishes it from Section 106 agreements, which dominantly focus on site-specific obligations such as affordable housing. When combined with Section 106 and other funds, these mechanisms contribute to both the strategic and localised infrastructure demands of local growth and development.

The article examines the implementation of CIL in Newham, a London borough that adopted the levy in 2014. By analysing CIL's contribution to Newham's infrastructure, including transport, education, and green spaces, the case study highlights how CIL funding has facilitated key regeneration projects. For instance, in the Royal Docks and Custom House areas, where CIL funding has supported transport upgrades, new housing, and public realm enhancements, demonstrating the positive impact of the levy on economic growth and social amenities. Despite its success, challenges remain, including the exclusion of affordable housing from CIL funding and the complexity of allocating resources for competing priorities. Furthermore, CIL's role in fostering community involvement is emphasised, with a portion of revenue allocated for local projects such as Youth Centres and Community Halls or smaller community projects. The paper concludes by reflecting on the future of CIL in Newham, advocating for more collaborative fund allocation and increased focus on inclusivity and sustainability in order to balance local economic, social, and environmental needs.

Additionally, CIL's role in fostering community involvement is emphasized, with a portion of revenue allocated for local projects such as youth centers and community halls. The paper concludes by reflecting on the future of CIL in Newham, advocating for more transparent fund allocation and increased focus on sustainability and net-zero goals.

**Key Words:** CIL Funding, local needs, funding, growth, innovation, collaboration

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## **A Roadmap on Value-Based Distribution Model-The Case of İsmetpaşa Neighborhood / Değer Esaslı Dağıtım Modeli Üzerine bir Yol Haritası-İsmetpaşa Mahallesi Örneği**

**Serhat Başdoğan<sup>1</sup>**  
**Ayşenur Babacan Demirel<sup>2</sup>**  
**Burcu Saygılı<sup>3</sup>**  
**Neslihan Bıyıklı<sup>4</sup>**  
**Ubeydullah Yasar<sup>5</sup>**  
**İlkim Ergün<sup>6</sup>**

### **Abstract**

İstanbul has several regions with significant concentrations of earthquake-vulnerable structures. Large-scale urban redevelopment initiatives are being executed in collaboration with public and private sectors to enhance the resilience of these places to natural disasters. These applications are mostly executed via land allocation methods, resulting in a devaluation for the rights holders. This research seeks to provide a roadmap including the value-based distribution model, participation, and the Produce-Transfer-Discharge model. To establish this roadmap, the value-based distribution model and the produce-transfer-discharge model were examined via a literature research, and the evaluation variables (physical and social) pertinent to the value-based distribution model were identified. In this study, İsmetpaşa Neighborhood in Bayrampasa District was selected due to its classification as a seismically hazardous location and the implementation of the produce-transfer-discharge paradigm in the continuing urban development. To assess the area's potential, a physical and sociological mapping of İsmetpaşa Neighborhood was conducted and analyzed using SWOT analysis. As a result of the study, the need to establish a value-based distribution model that takes into account the right of ownership and the public interest, rather than the principles of land arrangement, in areas where urban redevelopment is to be realized and where the right of ownership is dense, has been revealed. The list of valuation factors integrated into the field study has been transformed into a road map with a timeline and role of stakeholders. A more equitable distribution should be based on value rather than area and in addition to the public right, the contractor's share should also be taken into

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consideration to meet the financing is determined. The study brings a novel viewpoint on urban redevelopment programs by incorporating the roadmap and the produce-transfer-discharge-repeat paradigm.

**Key Words:** Value-based distribution, produce-transfer-discharge, urban redevelopment, land regulation

### Özet

İstanbul'da, depreme karşı riskli yapıların yoğun olduğu birçok bölge bulunmaktadır. Bu bölgelerin afete karşı dirençlilik kazanması için kamu- özel sektör işbirliği ile büyük ölçekli kentsel dönüşüm projeleri uygulanmaktadır. Bu uygulamalar çoğunlukla 3194/18 sayılı yasaya dayanarak arazi ve arsa düzenlemesi yoluyla yapılmakta bu da hak sahiplerinin değer kaybına yol açmaktadır. Bu çalışmanın amacı, İstanbul'un deprem açısından riskli olarak nitelendirilen Bayrampaşa İlçesi İsmetpaşa Mahallesi'nde Üret-Aktar-Boşalt modeli ile halihazırda etaplamaya yapılmaya başlanan kamu-özel işbirlikli dönüşüm projesinin, değer esaslı dağıtım modeli ve katılımcılık gibi süreçlerin bütününe kapsayan bir yol haritasının belirlenmesidir. Bu yol haritasının belirlenebilmesi için öncelikle literatür taraması yapılarak değer esaslı dağıtım modeli, üret-aktar- boşalt modeli kavramları araştırılmış ve değer esaslı dağıtım modeli için uygulanması gereken değerlendirme faktörleri belirlenmiştir. Ayrıca Türkiye ve diğer ülkelerdeki değer esaslı dağıtım modeli uygulayan vaka çalışmalarından çıkarılan veriler derlenmiştir. Daha sonra çalışma alanı olan İsmetpaşa Mahallesi'nin fiziksel ve sosyal haritalaması yapılarak SWOT analizleri ile alanın potansiyelleri değerlendirilmiştir. Bölgede belediye tarafından başlatılmış olan kentsel dönüşüm projesinin devamlılığı için alanın fizibilite raporu oluşturulmuştur. Çalışmanın sonucunda kentsel dönüşümün gerçekleştirileceği, hak sahipliğinin yoğun olduğu bölgelerde, arazi ve arsa düzenleme esasları yerine hak sahipliğini ve kamu yararını gözeterek değer esaslı dağılım modelinin oluşturulmasının gerekliliği ortaya konmuştur. Bu değerlemenin yapılabilmesi için literatürde sıklıkla yer alan fiziksel koşullarla ilgili faktörlerin yanı sıra katılımcılık ve sosyal koşulları da değerlendirebilmeyi sağlayan bir faktör listesi oluşturulmuştur. Bu faktör listesinin alan çalışmasına nasıl entegre edileceği zaman planlaması ile bir yol haritasına dönüştürülmüştür. Daha adil bir dağıtım için hak sahipliği dağıtımı, alan hesabı yerine değer esaslı yapılmalıdır. Yapılan projelerde kamu hakkı dışında, finansmanın karşılanabilmesi için yüklenici payı da gözetilmelidir. Çalışma, hazırlanan yol haritası ile üret-aktar-boşalt-tekrarla modelinin entegrasyonunu içermesi ile kentsel dönüşüm projelerine yeni bir bakış açısı getirmektedir.

**Key Words:** Üret-aktar-boşalt, kentsel dönüşüm, arazi düzenlemesi, değer esaslı dağıtım



## **A Nightmare or a Dream: Brownfield Development in the Heart of the Dense City**

**Pablo Molina<sup>1</sup>**  
**Miquel Morell<sup>2</sup>**

### **Abstract**

The entrance of Barcelona from the airport was hindered during over 50 years by two pestilential and enormous chemical factories that were built between the motorway and one of Barcelona's metropolitan municipalities, el Prat de Llobregat. The factories were so near the centre of the municipality that the Town Hall and the main Church of the municipality were just 5 minutes walking from the door of the factories. Those 2 factories were separated by a reduced area where factories and residences mix in a disorderly manner.

Around 20 years ago, the economic crisis that affected Spain and the proximity of the plants to the center of the village ended up closing the plants. The City Council then started a procedure to determine which development was fitting for the area.

After much deliberation, the City Council decided to request the developers that owned the land of the former factories to start the procedure for amending the General Plan of Barcelona and developing the area for the purposes of building a new neighborhood of the city that included housing, specially affordable housing, commercial activities and offices. The neighbors of the area want a relocation within that same area and the City Council has exempted them from payment of infrastructure costs.

The planning amendment posed unique problems:

- Dealing with the pre-existing developments, both residential and commercial, and ensuring relocation of neighbors
- Distributing costs corresponding to the redevelopment of the area without charging the costs to the pre-existing developments
- Developing a strategy in order to divide the area in smaller pieces that would make the development feasible

The strategy developed needed to comply with the stringent requirements stated by the Planning Law. This means that:

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- All the different development areas need to be balanced, with a maximum unbalance of 15% of the costs and benefits of the development, combined
- The different development areas need to pay for their development while not paying for the development of the area already occupied by industrial uses and residences
- The relocation of neighbors needs to happen first and foremost, and be paid by all the development areas
- Land Readjustment is the instrument that needs to be used in order to ensure proper development of the area

Our paper explains the strategy and mechanisms used in order to develop the area, including the details of the distribution and the problems encountered in that approach.

**Key Words:** Brownfield development, Land Readjustment, cost distribution, development strategies



## Low Carbon and Energy Efficient Real Estates for Adequate Housing for All in the Central Africa Region

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Emmanuel Loumouna<sup>3</sup>

Chimene Ngueyep Kodjio<sup>4</sup>

### Abstract

With a growing population, the central Africa region had of close to 250 million inhabitants in 2023. This trend is going to increase in the coming decades. Today, more that 70% of its households, estimated at 41 million reside in poor and underequipped neighborhoods, also called slums. Considering that its demography would likely double by 2063, when assessing the continental vision called 'The Africa we want', the quality of urbanization and housing standard must of be of high interest to the future generation. Today, people migrate to Europe, Asia or America for better living conditions. This paper intends to demonstrate that a low carbon and energy efficient real estate if well planned, designed and financed could generate huge social, industrial, labor, technological, and peace opportunities in the central Africa region, currently less developed and exposed to climate change and insecurity. The paper will describe the current state of housing gap and real estate promotion with a focus of the situation in human settlements affected by climate damages and crisis. In addition, it depicts the hidden positive side of current low carbon and energy-efficient technologies use to construct traditional houses. It shows that if well harnessed, and standards put it place, the carbon and ecological footprints of the region will reduce drastically while increasing communities' revenue due to the promotion of local construction industries to transform materials. The cost for investing in low carbon housing and construction will progressively reduce government and tax-payers burden. Finally, the paper argues the importance of having effective political will to ensure the regulation of real estate structures with the aim to increase accessibility and affordability of adequate housing to all both in rural and urban areas.

**Key Words:** Demography, urbanization, carbon footprints, adequate housing

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## The Role of Municipalities in Making Housing Policies in Türkiye

### */ Türkiye’de Konut Politikalarında Belediyelerin Yeri*

Mithat Arman Karasu<sup>1</sup>

#### Abstract

The solution to the housing problem entails the presence and joint work of numerous actors. The banks should expand the credit pool and the housing cooperatives should collect demands from the low- and middle-income groups as the central government ensures macroeconomic balances. Municipalities have a significant place and importance among these actors due to their determining role in zoning plans and urban rental income, and because housing is a problem that should be addressed locally. In this study, the role of municipalities in housing policies in Türkiye will be discussed and the aim of the study is to answer the question of to what extent municipalities are successful in solving the housing problem in Türkiye. In the first section of the study, why municipalities should be involved in solving the housing problem will be discussed primarily. The pros and cons of the involvement of the municipalities in housing production will be emphasized. In the second section, the role of the municipalities in housing policies will be analyzed in four periods in the historical process. The period between 1923-1950 is a period when the Republic of Türkiye was newly established and the housing problem was relatively new. The development of the capital city Ankara and the housing problem of the immigrants are decisive in this period. In the period between 1950-1980, building illegal houses in slum areas were a widespread housing production model. In this period, the municipalities actively participated in making housing policies. In the period between 1980-2000, the decisive factor was the Mass Housing Administration, which is an extension of the central government. For the first time, a fund was created with state support in housing production. In the period between 2000-2024, as social housing policies lost their significance, housing completely turned into an “investment tool” and the municipalities were left out of the process. The study will be concluded with an evaluation. Studying the place and importance of municipalities in housing policies will also allow us to answer various questions such as how housing is perceived in society, the perspective of the central government towards local governments, and how efficiently local governments work. The predicament experienced in housing policies is actually a result of the lack of solutions in different problem areas.

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**Key Words:** Housing, housing problem, local governments, municipalities, social housing

### Özet

Konut sorununun çözümü çok sayıda aktörün varlığını ve ortak çalışmasını zorunlu kılmaktadır. Merkezi idare makro ekonomik dengeleri sağlarken, bankalar kredi havuzunu genişletmeli, konut kooperatifleri alt ve orta gelir grubuna ait talepleri toplamalıdır. Gerek imar planları ve kentsel rant üzerindeki belirleyici rolü gerekse konutun yerelde giderilen bir sorun olması nedeniyle belediyeler bu aktörler içinde özel bir yere sahiptir. Türkiye’de belediyelerin konut sektöründeki rolünün tartışılacağı çalışmanın amacı, belediyelerin konut sorununun çözümünde ne ölçüde başarılı olduğu sorusuna cevap bulmaktır. Çalışmada öncelikle belediyelerin konut sorununun çözümünde neden yer alması gerektiği tartışılacaktır. İkinci bölümde tarihi süreçte, dört dönem halinde, belediyelerin konut politikalarındaki rolü incelenecektir. 1923-1950 arası dönem Cumhuriyetin yeni kurulduğu ve konut sorununun nispeten yeni olduğu bir dönemdir. Ankara’nın imarı ve göçmenlerin konut sorunu bu dönemde belirleyicidir. 1950-1980 arası dönemde gecekondulaşma yaygın hale gelmiştir. Bu dönemde belediyeler aktif olarak konut politikalarında yer almaktadır. 1980-2000 arası dönemde belirleyici olan merkezi idarenin uzantısı olan Toplu Konut İdaresi’dir. Konut üretiminde ilk kez devlet desteğiyle bir fon oluşturulmuştur. 2000-2024 arası dönemde sosyal konut politikaları önemini kaybederken, konut tümüyle bir “yatırım aracı” haline dönüşmüş ve belediyeler sürecin dışında kalmıştır. Çalışma bir değerlendirme ile sonuçlanacaktır. Belediyelerin konut politikalarındaki yerini incelemek bize, aynı zamanda, konutun toplumda nasıl algılandığı, merkezi idarenin yerel yönetimlere olan bakış açısı ve yerel yönetimlerin ne ölçüde verimli çalıştığı vb. onlarca farklı soruya da cevap vermemizi sağlayacaktır. Konut politikalarında yaşanan çıkmaz aslında farklı sorun alanlarındaki çözümsüzlüğün bir sonucudur.

**Anahtar Kelimeler:** Konut, konut sorunu, yerel yönetimler, belediyeler, sosyal konut



## **Balancing Sustainability in Real Estate: Decision-Making Factors for Renovation vs. New Construction**

**Eivind Hushovd Markussen<sup>1</sup>**  
**Alenka Temeljotov Salaj<sup>2</sup>**

### **Abstract**

This paper investigates the factors that influence decision-makers in real estate when they choose between building new or renovating buildings. The goal is to understand what parameters these decision-makers currently weigh and identify the research gaps, with special attention to the social sustainability perspective. This study uses a scoping literature review to discover these gaps and identify key parameters that should be included in the decision-making. Preliminary studies show a lack of attention to the social sustainability perspective and a strong focus on the economic difficulties linked with these projects, as decision-makers often favor short-term gain and struggle to see the long-term benefits. Additionally, there is a great deal of risk associated with these projects, as uncertainties with the structural integrity of a building may cause unforeseen costs. This further weakens the willingness of decision-makers to choose renovation over new builds. With recent EU initiatives like the European Green Deal and the Renovation Wave promoting renovation, there is a growing need for frameworks that balance the economic, environmental, and social factors in decision-making. This paper aims to lay the groundwork for developing a framework incorporating the missing parameters identified in this study, providing guidance for making informed decisions about renovation or new construction.

**Key Words:** Building renovation, social sustainability, economic and environmental trade-offs, civil engineering

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## **Navigating CSRD Compliance: Challenges in Sustainability Reporting for the Norwegian Real Estate Sector**

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**Alenka Temeljotov Salaj<sup>2</sup>**

### **Abstract**

This paper examines the challenges facing the Norwegian real estate sector in adapting to the Corporate Sustainability Reporting Directive (CSRD), a regulatory framework for sustainability reporting being phased in from 2024 to 2028. During this period, an increasing number of companies will be required to follow the new standards for transparency, accuracy, and comprehensiveness in environmental, social, and governance (ESG) reporting. The CSRD places much stricter requirements on reporting companies than previous regulations, imposing significant demands on them. The study uses a dual-method approach, combining a scoping literature review with a qualitative analysis of interviews conducted with different stakeholders in the Norwegian real estate sector. Preliminary findings highlight significant challenges in areas such as data collection across ESG categories, limited ESG knowledge, and resource allocation. Given that the CSRD implementation will be resource-intensive, especially for companies with limited knowledge, addressing these challenges early could enable firms to develop more sustainable compliance strategies. Furthermore, the insights from this study offer value beyond those companies directly required to report, providing guidance to businesses involved in the broader value chain, as they, too, will be increasingly expected to contribute ESG data. This paper provides practical guidance for real estate managers, enhancing the industry's resilience and ability to meet future sustainability requirements under the CSRD.

**Key Words:** Sustainability reporting, ESG, real estate, CSRD, Norway

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## The Identification and Revitalization of Abandoned Land in France

Loïc Jégouzo<sup>1</sup>

### Abstract

This study examines factors contributing to abandoned land in France. Urban pressure and decline in agriculture are among the factors contributing to abandoned land in France. It is well established that the challenges raised by abandoned plots are numerous, and the impact on agricultural activity is critical. Therefore, the need to identify and revitalise such plots is a major stake for rural and suburban areas in France. This study addresses the above issues through a brief presentation of SAFER from the perspective of the legal frame, tools and means of action, and their annual activities. The causes and challenges of land abandonment in France were examined through French legislation, safer tools, and actions to recover abandoned land. Firstly, the finding revealed that French legislation actively mitigated the issue through land planning, addressing the problem through inventories and legal procedures, and addressing its limits. Secondly, safer tools and actions to recover abandoned land focus on specific tools and procedures. Finally, the study presents an illustration using two detailed examples of action, namely small-scale perimeter identification through GIS databases that focused on a SAFER Auvergne-Rhône-Alpes (Southeast France) and large-scale detection through satellite images that used an innovative approach by SAFER Occitanie (Southern France).

**Key Words:** Abandoned land, urban pressure, agricultural decline, land revitalisation, rural and suburban areas, French legislation, SAFER

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## **Reimagining Real Estate: Integrating Indigenous Knowledge and Energy-Efficient Design for Climate-Resilient Homes**

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**Kasun Hewage<sup>3</sup>**  
**Rehan Sadiq<sup>4</sup>**  
**Meraj Kamal<sup>5</sup>**

### **Abstract**

The construction industry has a significant role in reducing carbon emissions and combating climate change. This paper explores the potential of combining Indigenous knowledge with modern energy-efficient designs to transform sustainable home building. This approach involves using local and recycled materials, eco-friendly techniques, and energy-efficient designs to create homes that are more durable, resilient, and require less maintenance, thereby extending their lifespan. Energy-efficient designs that have been tested in the Wilden Living Lab offer a practical way to develop climate-resilient homes that meet the contemporary demand for sustainability. In today's real estate market, there is a growing preference for homes that align with buyers' environmental values and suggest protection against climate risks. Energy-efficient and climate-resilient homes reduce carbon footprints and help safeguard against the impacts of disasters, making them attractive options in disaster-prone areas. This paper emphasizes how integrating sustainability features can reduce operational costs and appeal to eco-conscious buyers. Moreover, the economic benefits of such homes align with the growing focus on climate investments and ESG (Environmental, Social, and Governance) criteria in real estate markets. Through case study and data analysis, this paper demonstrates how these climate-adaptive strategies can drive construction and real estate innovation. By integrating Indigenous knowledge, this approach not only honors traditional wisdom but also results in homes that are built to withstand future environmental challenges. This paper provides builders, developers, and real estate professionals with a clear roadmap to meet the growing demand for sustainable,

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energy-efficient homes that provide long-term value while contributing to a more sustainable and climate-resilient future.

**Key Words:** Indigenous knowledge, energy-efficient design, climate-resilient homes, sustainable construction, real estate market



## **Peculiarities in the Valuation of Historical and Cultural Real Estate**

**Olesya Perepechko<sup>1</sup>**  
**Khamid Mamadzhanov<sup>2</sup>**

### **Abstract**

Real estate with cultural or historical value by virtue of its relation to a historical event, period, architectural style or national heritage requires a special approach to assess its value. Ignoring those precious values accumulated due to the passage of time is crucial and may result in inappropriate valuation for that real estate. The fact is that those vital intangible values are worthy of receiving adequate recognition during pricing as they took time to be embedded in real estate but eventually received less attention during the assessment, which may render those real estate undervalued and should be prevented. Such intangible aspects of real estate are crucial and should be adequately incorporated during real estate pricing, as they deserve appropriate attention. This paper analyzes the practice of value measurement of such real estate in European countries, including state support for the preservation and access through tax benefits and many more. The volume of budgetary funds allocated to ensure preservation and access to such properties is based on historical and cultural potential value.

**Key Words:** Evaluation of cultural and heritage real estate, intangible asset of real estate, historical value, architectural importance, cultural potential, evaluation of intangible potential of real estate

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## Enhancing Sustainable Mobility through Co-working Offices (Node office)

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Alenka Temeljotov Salaj<sup>5</sup>

### Abstract

This article examines how integrating co-working spaces, particularly node offices, can enhance sustainable urban mobility in Trondheim, located in the Trøndelag region of Norway. The study aims to enhance urban quality of life and reduce carbon emissions by promoting non-travel and minimizing peak-time traffic congestion. The node offices function as flexible hubs that address social, cultural, and economic barriers to commuters while facilitating various transit alternatives. This study investigates the impact of node offices and their role within urban mobility networks using Social Network Analysis (SNA). It combines qualitative and quantitative approaches, using surveys and interviews with various stakeholders, including regular commuters. These methods aim to gather diverse perspectives and comprehensive data on commuter preferences, workplace utilization, and travel behavior. Initial findings indicate that node offices, by offering easily accessible and strategically located co-working spaces, significantly reduce the need for travel during peak hours. Urban facility managers efficiently oversee these spaces, ensuring operational effectiveness and adaptability in line with the demands of contemporary work. The study provides valuable insights that policymakers and urban planners can leverage to develop strategies for sustainable urban mobility. By alleviating traffic congestion and promoting alternative modes of transportation, node offices contribute to Trøndelag's goal of becoming carbon neutral by 2030. Furthermore, the study underscores the importance of integrating innovative concepts into urban planning to achieve environmental goals and enhance the overall quality of urban life.

**Key Words:** Urban facility management, social network analysis, sustainable urban mobility, node office, Trondheim, Norway

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## **Accounting System and Problems in Facility and Real Estate Management Businesses**

### ***/ Tesis ve Gayrimenkul Yönetimi İşletmelerinde Muhasebe Sistemi ve Sorunları***

**Erol Demir<sup>1</sup>**

#### **Özet**

Muhasebe bir işletmenin; kaynaklarının elde edilmesini, elde edilen bu kaynakların kullanılma biçimini, günlük işlemler sonucu söz konusu kaynaklarda meydana gelen artış/azalışları, işletmenin finansal açıdan durumunu özetleyen bilgiler üretilmesini, üretilen bu bilgileri ilgili kişi ve kuruluşlara (işletme içi ve dışı) ulaştırılan bir bilgi sistemi olarak tanımlanmaktadır. Muhasebeden elde edilen bilgiler gerek kâr amaçlı işletmeler için gerekse kaynak kullanan ve bunu bütçeleyip denetleyen işletmeler için de temel bir gereksinim olarak karşımıza çıkmaktadır. Söz konusu bilgi sistemi ile işletmenin temel amaçlarına ulaşabilmesi için; işletme faaliyetlerinin düzenli bir şekilde kayıt altına alınarak ortaya çıkan problemlere doğrudan dikkat çekilmesi ile tepe yönetimine problemlerin çözümüne yönelik karar vermede yardımcı olma işlevini yerine getirir. Ayrıca işletme dışındaki tarafların bilgi gereksinimlerini karşılamaya yönelik de bilgi üretir. Günümüzde diğer işletmelerde olduğu gibi tesis yönetim işletmeleri ile giderek daha fazla gerçek veya tüzel kişi ilgilenmekte ve onların finansal durum ve faaliyetleri hakkında bilgi sahibi olmak istemektedirler. Zira bu tür işletmelere olan ilginin temel nedeni ekonomik çıkarlardır. İlgili taraflar ekonomik çıkarlarını koruyabilmek için tesis yönetim işletmeleri hakkında doğru, güvenilir, anlaşılabilir, karşılaştırılabilir temel ve ek mali bilgilere muhasebe sistemi üzerinden zamanında sahip olma ihtiyacı duymaktadırlar. Çünkü işletmenin amaçlarını gerçekleştirme adına alacakları kararları muhasebe sisteminden alınan bilgilere dayandırmak istemeleri gayet doğaldır. Çalışma kapsamında tesis yönetim işletmelerinde işletme yönetimi ve diğer ilgili taraflar ile muhasebe bilgilerinin ilişkisi bir bütün halinde sistematik olarak incelenmiş ve aksayan yönler tespit edilmeye çalışılmıştır. Bu ilişki muhasebe mantığı çerçevesinde şöyle sıralanabilir. İşletme yönetimi; yönetsel bilgi ve raporlar (muhasebe sistemi uygulama genel tebliği ile yayımlanan tek düzen hesap planı, genel kabul görmüş muhasebe ilkeleri, KGK muhasebe ve finansal raporlama standartları ve diğer yasal düzenlemeler çerçevesinde raporlama), muhasebe süreci, işletme içi özel raporlar, finansal tablolar, vergi beyannameleri, mali raporlar/faaliyet raporları, bağımsız denetim, işletme içi/işletme dışı kuruluşlar, banka ve finans kurumları, mevcut/potansiyel yatırımcılar, sendikalar ve devlet.

**Anahtar Kelimeler:** Muhasebe, tesis yönetimi, gayrimenkul, mükellef, vergi ve yasal yükümlülükler

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## **Classification, Licensing, and Development of Financial Indices for Facilities and Property Management Firms**

**Esra Keskin<sup>1</sup>**  
**Harun Tanrivermiş<sup>2</sup>**

### **Abstract**

Facility and property management activities account for approximately 5-10% of developed industrialised countries' gross domestic product (GDP). In Türkiye, this ratio is around 1%, and the sector's share of GDP is expected to increase in the coming years with economic growth, urbanisation rates, infrastructure investments, and innovative real estate projects. This research examined national and international studies on the facility and real estate management sector, existing classification criteria, licensing processes, and financial index development approaches and practices. Organisations such as BOMA (Building Owners and Managers Association) in the United States of America, IWFM (Institute of Workplace and Facilities Management), and RICS (Royal Institution of Chartered Surveyors) in the United Kingdom play an essential role in the classification, licensing and professional standards of businesses in the sector. These organisations provide guidelines that clearly define the scope of services, quality standards and types of activities for firms. In addition, certification and accreditation mechanisms that are in line with international standards are also used in licensing processes. Certifications for energy management, environmentally friendly practices, and technology integration, such as LEED and ISO 41001, are also widely applied. Among financial indices, the Green Property Index in the US, the EPRA (European Public Real Estate Association) Index in Europe, and the JLL Facility Management Cost Index are also used to assess firms' financial sustainability and market performance. An assessment of the financial structures of the facility and real estate management enterprises in Türkiye has been made with the data of the Turkish Statistical Institute, and according to the results of the research, it is seen that the structures of the enterprises operating in this sector vary to a great extent, there is no standardised classification system, and the enterprises have not been separated according to size, service scope and areas of expertise. Under these circumstances, evaluating the quality of the method services and the sector's overall performance becomes difficult. In addition, the lack of adequate regulations in licensing processes leads to the inclusion of unqualified firms in the industry and a decline in service quality. In financial terms, the lack of reliable indices that can measure the industry's financial

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performance constitutes a significant obstacle in assessing enterprises' competitiveness and financial sustainability. It is considered that the classification of enterprises according to size, service scope, and areas of expertise will contribute to both increasing sectoral competition and improving service quality. In summary, establishing licensing mechanisms in line with international standards will increase the reliability and sustainability of the sector.

**Key Words:** Facility and real estate management, licensing, financial indexes, international standards, certification systems

### Özet

Tesis ve gayrimenkul yönetimi faaliyetleri, gelişmiş sanayi ülkelerinde gayri safi yurt içi hasılanın (GSYH) yaklaşık % 5-10'unu oluşturmaktadır. Türkiye'de söz konusu oranın % 1 dolayında olduğu ve ekonomik büyüme, artan kentleşme oranları, altyapı yatırımları ve yenilikçi gayrimenkul projeleri ile sektörün GSYH içindeki payının önümüzdeki yıllarda artması beklenmektedir. Araştırmada öncelikle tesis ve gayrimenkul yönetimi sektörüne yönelik ulusal ve uluslararası çalışmalar, mevcut sınıflandırma kriterleri, lisanslama süreçleri ve mali endeks geliştirme yaklaşımları ve uygulamaları irdelenmiştir. Özellikle Amerika Birleşik Devletleri'nde BOMA (Building Owners and Managers Association) ve İngiltere'de IWFm (Institute of Workplace and Facilities Management) ve RICS (Royal Institution of Chartered Surveyors) gibi kuruluşlar, sektördeki işletmelerin sınıflandırılması, lisanslama ve profesyonel standartların belirlenmesinde önemli rol oynamaktadır. Bu kuruluşlar, işletmelere yönelik hizmet kapsamı, kalite standartları ve faaliyet türlerini açık bir şekilde tanımlayan rehberler sunmaktadır. Ayrıca, lisanslama süreçlerinde, uluslararası standartlara uygun sertifikasyon ve akreditasyon mekanizmaları da kullanılmaktadır. Enerji yönetimi, çevre dostu uygulamalar ve teknoloji entegrasyonu konularında sertifikalar da (LEED, ISO 41001 gibi) yaygın şekilde uygulanmaktadır. Mali endeksler arasında; ABD'deki Green Property Index, Avrupa'daki EPRA (European Public Real Estate Association) Endeksi, JLL Tesis Yönetimi Maliyet Endeksi de işletmelerin mali sürdürülebilirliğini ve piyasa performansını değerlendirmek için kullanılmaktadır. Türkiye'de tesis ve gayrimenkul yönetimi işletmelerinin mali yapılarına ilişkin olarak Türkiye İstatistik Kurumu verileri ile değerlendirme yapılmış olup, çalışma sonuçlarına göre; bu sektörde faaliyette bulunan işletmelerin yapıların büyük ölçüde farklılık gösterdiği, standartlaşmış bir sınıflandırma sisteminin bulunmadığı, işletmelerin büyüklük, hizmet kapsamı ve uzmanlık alanlarına göre ayrıştırılmasının yapılmamış olduğu görülmektedir. Bu koşullarda yöntem hizmetlerinin kalitesinin ve sektörün genel performansının değerlendirilmesini de büyük ölçüde güçleştirmektedir. Buna ilave olarak lisanslama süreçlerinde yeterli düzenlemelerin olmaması, özellikle nitelsiz firmaların sektöre dahil olmasına neden olmakta ve hizmet kalitesinde düşüşe yol açmaktadır. Finansal açıdan ise sektörün mali performansını ölçebilecek



güvenilir endekslerin eksikliği, işletmelerin rekabet gücünü ve finansal sürdürülebilirliğini değerlendirme konusunda önemli bir engel oluşturmaktadır. İşletmelerin büyüklük, hizmet kapsamı ve uzmanlık alanlarına göre sınıflandırılmasının; hem sektörel rekabetin artırılması, hem de hizmet kalitesinin iyileştirilmesine katkı sağlayacağı değerlendirilmektedir. Özetle uluslararası standartlara uygun lisanslama mekanizmalarının oluşturulmasının, sektörün güvenilirliğini ve sürdürülebilirliğini artıracığı ortaya konulmuştur.

**Anahtar Kelimeler:** Tesis ve gayrimenkul yönetimi, lisanslama, mali endeksler, uluslararası standartlar, sertifikasyon sistemleri



## **Real Property Transaction Prices as a Source for Quality Assurance of Mass Valuation in Belarus**

**Veranika Salauyova<sup>1</sup>**  
**Alena Dalidovich<sup>2</sup>**

### **Abstract**

Mass land valuation process involves valuing of large groups of properties on a certain date using common data, standardized methods, and statistical testing. Cadastral valuation in Belarus was centralized in 2015 and according to the legislation assumes valuation of each property type such as multi-family dwelling, individual housing, commercial or warehouse/industrial land use every four years. The valuation date is the 1st of July. Mass valuation results are public and distributed free of charge. According to the national valuation standards mass appraisal based on application of the three traditional approaches to value (cost, sales comparison, and income). In the lack of market data with unbuilt land plots the common techniques include land residual capitalization, abstraction or allocation. Cadastral value approximate market value for land plots in current use in areas with developed real property market. In Belarus cadastral value is used for several purpose. It is used not only for taxation purpose but for renting state land, lending, compensation in case of compulsory purchase etc. The procedure of cadastral valuation includes property data collection, real estate market data collection and analysis, land zoning, valuation modeling and statistical testing. Data quality is crucial for quality assurance of value obtained in mass appraisal process. Real property transaction prices are regarded as the most reliable source of information for predicting value. But for these purposes each sale must be properly reviewed and validated. The main source of real property market data in Belarus is the State Real Estate Prices Register that was established in 2004. It contains approximately 2 million transactions and has been wildly used for cadastral valuation for 20 years. The paper discusses Belarusian experience for reviewing and validation of real property transaction prices.

**Key Words:** Real property transaction prices, mass valuation

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## Comparative Analysis of Real Estate Valuation Practices and Trends Across Global Markets: Identifying Patterns and Areas for Improvement

Sachin Bhattarai<sup>1</sup>

### Abstract

Real estate valuation practices are shaped by a complex interplay of cultural, economic, regulatory and political variables, leading to considerable disparities across global markets. Such inconsistencies hinder market transparency, complicate cross-border property transactions and create challenges for investors in making informed decisions. This research—authored by Sachin Bhattarai, a seasoned real estate appraiser, civil engineer and PhD scholar at Sharda University, India—aims to conduct a comprehensive comparative analysis of valuation methodologies across key international markets, including the USA, UK, Germany, Türkiye, Cyprus, Singapore, Thailand, Dubai, India, Nepal, Australia and New Zealand. The study's primary objective is to uncover common patterns, critical challenges and opportunities for standardizing real estate valuation practices to enhance accuracy, reliability and consistency globally.

The research adopts a mixed-methods approach, integrating qualitative insights from interviews with valuation professionals and appraisers alongside quantitative data drawn from industry reports and academic literature. Comparative case studies will delve into the unique socio-economic and regulatory conditions of the targeted markets, further assessing the impact of emerging trends such as artificial intelligence, machine learning and sustainable valuation frameworks. Particular attention will be given to the role of international bodies, including the International Valuation Standards Council (IVSC) and the Royal Institution of Chartered Surveyors (RICS), in driving harmonization efforts.

The expected outcomes include actionable recommendations aimed at bridging valuation gaps across diverse markets, promoting transparency and fostering cross-border coherence in real estate practices. The study's findings will have broad implications, benefiting policymakers, industry professionals and investors alike, while contributing to the development of globally standardized frameworks that align with evolving market dynamics.

**Key Words:** Global real estate valuation, comparative analysis, market disparities, standardization, emerging trends

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## The Development of Real Estate Market and Property Valuation in Hungary Since 1990

Margaréta Mészáros <sup>1</sup>

### Abstract

The presentation will provide a short summary on how the commercial real estate market and property valuation as a professional service evolved in Hungary during the last three decades.

The contemporary real estate market in Hungary dates back its origins to the 1990ies when everywhere in the Central Eastern European region major changes in political system took place. During the communist regimes the economy was based on central planning – free market and private ownership was non-existent. Most goods including the commercial and industrial facilities were owned by the state. With the political changes a wave of privatisation took place where international and local, private and corporate investors were trying to figure out the value of both enterprises and properties.

The real estate profession and the property market evolved in parallel. Concepts and practices such as property valuation, market value, investment worth had to be reinvented. The need for well trained professionals was pressing. Besides local courses, two MSc postgraduate courses were offered in English and French. The English curriculum was an RICS accredited program that facilitated a sustainably growing professional community. Along with the expat professionals soon a new generation of local real estate professionals started to emerge. Today RICS count 180 members in Hungary.

During the past 30 years the real estate market has experienced a number of ups and downs both globally and in Hungary. After the fast paced privatisations new developments - both in the commercial and residential sectors - took the leading role in the evolvement of real estate market and by the end of 1990ies beginning of the 2000s the first institutional transactions took place. The market was not anymore emerging: both in volume and in general procedures it has become a mature one. Nonetheless, local and international regulations and standards are still parallel existing.

**Key Words:** Valuation, real estate, professional standards, market value, development

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## Unlocking Precision: Advancements in the Build-Up Method for Capitalization Rate Estimation

Nikolai Trifonov<sup>1</sup>

### Abstract

In the sixties of the last century the relationship between risk and return of a stock in exchange trading has been proven statistically by W. Sharp, S. Ross a. o. Later, when formulating the build-up method, these ideas were transferred without any justification to the valuation of real estate and enterprises that do not list their securities on the stock exchange. In other words, the formulae commonly used in the build-up method are not precise. In the paper the advancements of the build-up method have proposed in order to increase its precision. An analogy with I. Fisher's equation of returns was used as a methodological basis. A set of four independent risk metrics is given for use in the build-up method in general case: risk-free rate, country risk premium, industry risk premium, and asset risk amendment. Recommendations are given on finding the risk-free rate for various currencies, on calculating the country risk premium with examples of Belarus, Russia, Türkiye and other countries, as well as the industry risk premium and the asset risk amendment.

**Key Words:** Discount rate, build-up method, risk-free rate, country risk premium, asset risk amendment, industry risk premium

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## **Establishing Valuation Standard for Enhancing Valuation Profession in Ethiopia**

**Habtamu Bishaw Asres <sup>1</sup>**

### **Abstract**

The absence of valuation standard in Ethiopia makes institutions to apply valuation in a fragmented and non-consistent way, resulting valuation discrepancies. This paper therefore examines the importance of establishing valuation standard for enhancing valuation profession in Ethiopia. The research employed qualitative research approach in which the researcher seeks to understand the phenomenon of valuation from valuers and users of valuation. It utilizes primary and secondary data sources. Primary data was collected from valuers and users of valuation while secondary data were secured from relevant documents. The key informants were selected using purposive and snowball sampling techniques. The data were analyzed using thematic clustering the data into relevant themes. The paper revealed that valuation in Ethiopia is undertaken without comprehensive legal framework and there is no central regulatory institution responsible for valuation. As a result, institutions have been employed internal valuers, commonly engineers and replacement cost approach is the predominantly employed valuation method. Moreover, property valuers do not have sufficient professional competence in valuation and have no discretion to choose the appropriate valuation approaches according to the nature and type of properties to be valued. This has created the likelihood that users of valuation opinions would lose confidence in the valuation result. Because of this, inaccurate valuation is more than the conventional average and it has significant consequences. The study, therefore, urges the establishment of a specialized government agency with the primary task of formulating institutional and legislative frameworks and regulating the valuation in the country. This can lead to the emergence of a valuation professional association where the association will establish professional valuation standards compatible with the Ethiopian property market context. This will improve the property market in general and the valuation profession in particular.

**Key Words:** Valuation, valuation standard, valuation association, legal framework, Ethiopia

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## **Investigating the Impacts of Urban Densification on Buried Water Infrastructure Performance: A Decision Support System**

**Manjot Kaur<sup>1</sup>**

**Kasun Hewage<sup>2</sup>**

**Rehan Sadiq<sup>3</sup>**

### **Abstract**

In recent decades, significant population growth and urbanization have transformed global landscapes, raising expectations for urban development. Urban densification has emerged as an effective strategy for promoting sustainable development, as it minimizes land use, energy consumption, greenhouse gas emissions, and the costs associated with urbanization. This approach also maximizes the utilization of existing buried water infrastructure (BWI), which is crucial for delivering services such as drinking water, wastewater treatment, and stormwater management. Despite its advantages, increased densification presents several challenges, including environmental and health issues like air pollution, traffic congestion, urban heat islands, loss of greenery, and a rise in traffic accidents. Additionally, the existing BWI is under pressure, leading to insufficient water supply and drainage services in many rapidly growing cities. To address these challenges, this research developed a decision support system aimed at enhancing BWI performance in response to urban densification. The findings aim to support better decision-making and set performance standards, offering management practices that balance BWI efficiency with costs while mitigating the effects of urban densification.

**Key Words:** Urban development, densification, buried water infrastructure, level of service, performance assessment

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## Current Logistics Investments: Challenges and Proposals

Zivar Zeynalova <sup>1</sup>

### Abstract

There are fundamental problems faced by logistics investments in the modern era. The source of these problems can be caused by rapidly changing global trade dynamics, technological innovations and environmental factors. In general, we can examine the emerging problems as supply chain disruptions, digital transformation and technology adaptation, infrastructure deficiencies, cost management and others.

Supply chain disruptions are among the frequently encountered events. For example, natural disasters and extreme weather events (hurricanes, floods, etc.) that are increasing with climate change can cause disruptions in ports, shipping routes, and warehouses. This requires logistics investments to be directed to more resilient infrastructures. After the COVID-19 pandemic, major disruptions occurred in global supply chains, leaving many sectors in a difficult situation. In addition, geopolitical tensions, trade wars, and sanctions affect logistics operations, especially in strategic regions. Another important issue that is open to discussion is digital transformation and technology adaptation. The level of automation and digitalization achieved today has become a great necessity in the logistics sector. However, the investments required to adapt to these technologies (artificial intelligence, autonomous vehicles, the internet of things, big data analysis, etc.) require serious costs and time. Another problem we encounter in this area is related to cybersecurity. The complete digitalization of logistics networks leads to cyberattacks by third parties and increased risks. Weak spots in supply chains can shut down companies' operations or lead to data security breaches.

In modern days, infrastructure deficiencies are still one of the problems we face. In many developing countries, logistics infrastructures (roads, ports, railway systems) are inadequate or outdated. Lack of modernization leads to inefficiencies and high costs in logistics activities. In addition, with increasing urbanization, intra-city logistics activities have become more complex and difficult. Traffic congestion prevents timely deliveries, and it has become difficult to meet the increasing demand for fast delivery, especially with e-commerce. The demand for qualified labor in the logistics sector continues unabated. In this field, a skilled, educated, experienced,

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knowledgeable workforce should always be trained for operations requiring technological skills. Such a labor shortage should be prevented by various policies.

Another important issue we encounter is related to costs. These costs can also be caused by the increase in labor costs. Labor costs are increasing in developed countries and union demands can affect logistics operations. Fluctuations in fuel prices are also among the increasing costs. Fluctuations in fuel prices, which directly affect transportation costs, create major cost risks, especially in long-distance transportation.

With the rapid growth of e-commerce, consumers expect fast delivery and low costs. This necessitates both more efficient use of time and cost optimization in the logistics sector. In this area, the high return rates in e-commerce companies make reverse logistics difficult and also increase operational costs.

These problems underlined above cause serious difficulties in modern logistics investments in terms of both cost and strategic planning. In order to cope with the difficulties that may arise, it is necessary to prepare flexible, technology-oriented and sustainable strategies

**Key Words:** Logistics investments, e-commerce, supply chain, digital transformation, technology



## Place-Based Impact Investing in Türkiye: The Perspective of Civil Society, Local Governments and Academia

Dursun Onur İlhan<sup>1</sup>

### Abstract

The base for impact investing is steadily growing in Türkiye since 2020, a noteworthy step for the overall growth of and the further national integration into the ever-changing international economic order. As an important subset of this burgeoning ecosystem, numerous actions have also been taken to introduce and scale place-based impact investing (PBII) in the country. Towards sustainable and egalitarian urban and rural development, PBII is focusing on target geographies, themes and beneficiaries to realize positive, measurable social and/or environmental impact, while generating financial returns. As a country facing serious natural and humanmade hazards and socioeconomic challenges that may either be instantaneous or long-lasting, Türkiye could benefit from the value proposition of PBII. Accordingly, this paper provides an overview of the journey of impact investing in Türkiye based on literature review, as well as the deciphering of an online search meeting that was organized with the attendance of nine members of civil society, municipal system and academia with a single question initiating the open-ended discussion; “which actions should be taken to introduce and scale place-based impact investing (PBII) in Türkiye?” This recorded non-structured meeting houses valuable insights for enablers and intermediaries to build action plans. The insights concentrate on two fields, (1) identifying the major stakeholders outside of the private sector (i.e. the central government, national and regional municipality unions, local governments, international organizations, non-governmental organizations, technology development zones, universities and the youth) and their unique roles, strengths and needs regarding PBII and (2) elaborating on the initial, interrelated and practical ways and means to introduce and scale PBII in Türkiye (i.e. awareness raising, data availability and reliability, effective and inclusive cooperation and the introduction of feasible and workable financial models and instruments). These insights are mapped for better visual representation and potential gaps have been identified for future reference, discussion and research.

**Key Words:** Impact investing, local government, civil society, universities, sustainable development

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## Newham Council Housing Delivery Strategy

Burak Çetindağ<sup>1</sup>

### Abstract

London is facing a serious housing crisis, principally from a historic lack of housing provision and demand continues to outstrip supply with population growth. London's housing shortage has been caused by the failure, over decades, to build new homes the city's growing economic needs. The new government's manifesto pledge includes building 1.5 million new homes in five years to combat the growing housing crisis. The new targets will mean councils must boost housebuilding in areas most in need, helping more people buy their own homes, and removing the largest barriers to economic growth.

Local authorities have a vital and challenging role in tackling the most acute housing crisis in the UK by delivering directly, or through partnerships with other providers whilst local authority funding became scarcer. In addition to current economic, social and environmental challenges exacerbated since the pandemic local authorities must respond to housing crises with their partners such as housing associations, institutional investors, small builders, and community organizations. The London Housing Strategy sets out his vision for housing, and his policies and proposals to make it happen through £billions of housing investment. Building the right number and mix of genuinely affordable, quality homes, fairer deal for private renters and leaseholders, tackling homelessness and helping rough sleepers are the priorities of the London Housing Strategy to address the consequences of the housing crisis in the capital.

The paper draws on the example of Newham Council which has one of the most ambitious housing targets of any local authority in the UK. The Local Plan sets out an indicative housing delivery of over 32,800 new homes by 2028/29. Newham Council's Housing Delivery Strategies are focused on what can be done within the resources and constraints that the Council operates under. They represent the first steps towards a long-term vision and strategy for housing. Steps towards meeting ambition targets include planning for Council-led development through innovative approaches with partners to meet a range of housing needs.

**Key Words:** Housing delivery, affordable, finance, growth, innovation

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## Level of Service-Based Decision Support Framework for Drinking Water Systems

İlay Sarılar<sup>1</sup>  
Haroon R. Mian<sup>2</sup>  
Michael De Coste<sup>3</sup>  
Kasun Hewage<sup>4</sup>  
Rehan Sadiq<sup>5</sup>

### Abstract

Drinking water systems are critical assets for delivering clean and safe water to communities. Effective asset management is essential for addressing competing pressures faced by local governments, such as balancing performance, cost, and risk, while meeting both short- and long-term objectives. Level of Service (LOS) is a key aspect of asset management and defines the performance outcomes expected from assets. This study introduces a comprehensive LOS-based decision support framework for evaluating the LOS of drinking water systems using a sustainability-focused approach. The framework is organized into three main stages: data collection, LOS assessment, and decision-making. LOS assessment considers three sustainability dimensions—environmental, economic, and social—evaluated through specific LOS metrics. It integrates Life Cycle Thinking and Human Health Risk Assessment methods to ensure a comprehensive, sustainability-focused evaluation. Additionally, a scenario-based multi-criteria decision-making tool is included to assist decision-makers in identifying the specific needs of drinking water systems. This study aims to guide decision-makers in pinpointing areas for improvement and ensuring cost-effective, environmentally sustainable, and socially responsible water service delivery.

**Key Words:** Asset management, level of service, drinking water systems, life cycle thinking, risk assessment

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## Rural Land Banking Implemented by Safer in France

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### Abstract

SAFER implemented land banking in France for over 6 decades. The SAFER were created in 1960, and their legal frame of existence and actions is based on a dedicated chapter of the French rural law. They are private non-profit companies under the supervision and agreement of both Ministries in charge of agriculture and finances. They fulfil public service missions that favour agriculture, forests, the environment, and rural development. Their geographical perimeter of action is all rural and suburban areas in continental France and 4 French overseas territories. SAFER addresses several land banking issues, such as the restructuring and consolidation of farmland, the support for generational renewal in agriculture, and the support for large-scale infrastructure projects. This study presents brief information about the legal frame, tools and means of action, and SAFER's annual activities. Similarly, the paper provides details of the SAFER's land banking mechanism, whose duration could be 5 years under normal conditions or 10 to 15 years under special conditions. The study further provides information about some temporary leasing of land banking offered by SAFER, which may span from short duration to long duration. Furthermore, the paper presents sales of banked land and criteria used to select the candidate(s). The paper addresses the issues relating to land banking in France and its evolution since 1960, which led to discussions on restructuring and consolidation of farmland. The study emphasises the need for stakeholders, which are SAFER partners with local authorities ("Régions", "Départements"), banks, agricultural cooperative structures, and contracting authorities aiming to support the project's installation for young farmers and large-scale infrastructure. This aims to stimulate the financing process, including loan interest financing, guarantee, and possible pre-financing. Finally, the study overviewed other land banking mechanisms in some European countries. Together with the ongoing project of a new land fund in France as developed by the SAFER, it intends to strengthen the capacity needed to support the installation of young farmers.

**Key Words:** SAFER, land banking, agriculture, forests, environment and rural development, land banking mechanism, project's installation, France

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## **Adaptation Process of Health Facilities to Climate Change: An Evaluation with the AHP Method */ Sağlık Tesislerinin İklim Değişikliğine Uyum Süreci: AHP Yöntemi ile Bir Değerlendirme***

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### **Abstract**

Climate change, one of the most important global threats of the 21st century, has serious effects on healthcare systems. Climatic threats such as extreme weather events, heat waves, floods and droughts are expected to become more frequent and severe in the future. This situation has the potential to disrupt the service delivery of healthcare facilities, damage their infrastructure and increase risks to public health. For this reason, healthcare facilities need to be made more resilient to climate change. The aim of this study is to evaluate the adaptation processes of healthcare facilities to climate change using the Analytical Hierarchy Process (AHP) method, one of the multi-criteria decision-making techniques. In this context, seven main criteria were determined by using the World Health Organization (WHO) Climate-Resilient and Environmentally Sustainable Healthcare Facilities criteria. These determined criteria are; financial infrastructure resilience, emergency management capacity, environmental sustainability, healthcare service delivery and resilience, social access and justice, economic resilience, digital infrastructure and technological applications. In the evaluation of the criteria, the pairwise comparison scale developed by Saaty (1980) was used and opinions were obtained from four experts with at least five years of experience in the field. As a result of the analyses; physical infrastructure durability was determined as the most important criterion with a criterion weight of 0.27. Economic durability was ranked second with a criterion weight of 0.25 and health service provision and durability criterion was ranked third with a criterion weight of 0.10. Social access and justice criterion was found to be the least important criterion with a criterion weight of 0.03. As a result of the analysis, the consistency ratio (CR) value was found to be 0.05 and this value shows that the analysis results are consistent and reliable. The results obtained show that strengthening the physical infrastructure of health facilities and ensuring economic resilience are the most important strategic steps against the risks brought

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by climate change. In particular, the resilience of physical infrastructure plays a critical role in maintaining the functionality of health facilities against extreme climatic events.

**Key Words:** Healthcare facilities, climate change, facility management, MCDM, AHP

### Özet

21. yüzyılın en önemli küresel tehditlerinden birisi olan iklim değişikliği, sağlık sistemleri üzerinde ciddi etkiler yaratmaktadır. Aşırı hava olayları, sıcak hava dalgaları, sel ve kuraklık gibi iklimsel tehditlerin gelecekte daha sık ve şiddetli hale gelmesi beklenmektedir. Bu durumun sağlık tesislerinin hizmet sunumunu kesintiye uğratma, altyapılarına zarar verme ve toplum sağlığına yönelik riskleri artırma olasılığı bulunmaktadır. Bu sebeple sağlık tesislerinin iklim değişikliğine karşı daha dayanıklı hale getirilmesi gerekmektedir. Bu çalışmanın amacı, sağlık tesislerinin iklim değişikliğine uyum süreçlerini çok kriterli karar verme tekniklerinden birisi olan Analitik Hiyerarşi Süreci (AHP) yöntemi ile değerlendirmektir. Bu kapsamda, Dünya Sağlık Örgütü'nün (WHO) İklim Dayanıklı ve Çevresel Olarak Sürdürülebilir Sağlık Tesisleri kriterlerinden yararlanarak yedi ana kriter belirlenmiştir. Belirlenen bu kriterler; finansal altyapı dayanıklılığı, acil durum yönetimi kapasitesi, çevresel sürdürülebilirlik, sağlık hizmeti sunumu ve dayanıklılık, toplumsal erişim ve adalet, ekonomik dayanıklılık, dijital altyapı ve teknolojik uygulamalar şeklindedir. Kriterlerin değerlendirilmesinde Saaty (1980) tarafından geliştirilen ikili karşılaştırma ölçeğinden yararlanılmış ve alanında en az beş yıllık deneyime sahip dört uzmandan görüş alınmıştır. Yapılan analizler sonucunda; fiziksel altyapı dayanıklılığı 0,27 kriter ağırlığı ile en önemli kriter olarak belirlenmiştir. Ekonomik dayanıklılık ise 0,25 kriter ağırlığı ile ikinci sırada ve 0,10 kriter ağırlığı ile sağlık hizmeti sunumu ve dayanıklılık kriteri üçüncü sırada yer almıştır. Toplumsal erişim ve adalet kriteri 0,03 kriter ağırlığı ile en az öneme sahip kriter olarak bulunmuştur. Analiz sonucunda, tutarlılık oranı (CR) değeri 0,05 olarak bulunmuş ve bu değer analiz sonuçlarının tutarlı ve güvenilir olduğunu göstermektedir. Elde edilen sonuçlar, sağlık tesislerinin fiziksel altyapılarının güçlendirilmesi ve ekonomik dayanıklılığın sağlanmasının, iklim değişikliğinin getirdiği risklere karşı en önemli stratejik adımlar olduğunu göstermektedir. Özellikle fiziksel altyapının dayanıklılığı, sağlık tesislerinin aşırı iklim olayları karşısında işlevselliğini sürdürmesi açısından kritik bir rol oynamaktadır.

**Anahtar Kelimeler:** Sağlık tesisleri, iklim değişikliği, tesis yönetimi, ÇKKV, AHP



## **Energy Efficiency in Healthcare Facilities: An AHP-Based Approach for Operational Solutions** */ Sağlık Tesislerinde Enerji Verimliliği: Operasyonel Çözümler İçin AHP Tabanlı Bir Yaklaşım*

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### **Abstract**

Healthcare facilities are characterised by high energy consumption and continuous energy requirements. This situation gives rise to the energy consumption of healthcare facilities becoming a significant cost item. Conversely, the pursuit of environmental sustainability and the efficient utilisation of resources have emerged as pivotal tenets of contemporary health management. In this regard, identifying the factors influencing energy efficiency is of paramount importance in formulating effective strategies to curtail energy consumption and associated costs. The objective of this study is to ascertain the factors influencing energy efficiency in healthcare facilities and to categorise them according to their relative importance. A review of the literature revealed seven factors affecting energy efficiency in healthcare facilities: monitoring and analysis of energy consumption, selection of technological equipment, use of renewable energy sources, lighting systems, building design and insulation, energy awareness and training, and air conditioning systems (HVAC). The Fuzzy AHP method was employed to ascertain the weights of the factors and to rank them according to their importance. The results of the analysis revealed that the most significant and prioritised factors influencing energy efficiency in healthcare facilities were identified as 'Air Conditioning Systems (HVAC)', with a weight of 26.28%, 'Building Design and Insulation', with a weight of 20.85%, and 'Use of Renewable Energy Sources', with a weight of 17.43%, respectively. The factor with the lowest importance weight and priority was found to be the selection of technological equipment, with a weight of 4.5%. It is therefore recommended that air conditioning systems, which have the greatest impact on the efficiency of health facilities, be replaced with energy-efficient models. Furthermore, it is essential to implement a programme of continuous maintenance and performance monitoring, and to optimise heating and cooling needs through the use of automatic control systems and sensor-supported solutions. In order to reduce heat loss and energy consumption in facilities, it is essential to enhance the quality of insulation and reinforce insulation

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materials on building facades, windows and roofs. Furthermore, it is imperative to consider energy efficiency in the design of new facilities. In addition to incorporating sustainable architectural principles, it is also recommended to invest in renewable energy sources such as solar and geothermal energy. Hospitals with extensive roof areas, in particular, have the potential to meet a significant portion of their electricity needs through the installation of solar energy panels.

**Key Words:** Health facilities, energy, efficiency, AHP, optimisation

### Özet

Sağlık tesisleri, enerji tüketiminin yüksek olduğu ve sürekli enerji gereksinimlerinin bulunduğu yapılardır. Bu durum, sağlık tesislerinin enerji tüketiminin önemli bir maliyet kalemi haline gelmesine yol açmaktadır. Diğer yandan, çevresel sürdürülebilirlik ve kaynakların etkin kullanımı, modern sağlık yönetiminin en önemli unsurlarından biri haline gelmiştir. Bu doğrultuda enerji verimliliğini etkileyen faktörleri belirlemek, enerji tüketimini ve buna bağlı maliyetleri azaltmak için etkili stratejiler geliştirilmesinde büyük önem taşımaktadır. Bu çalışmanın amacı da sağlık tesislerinde enerji verimliliğini etkileyen faktörleri tespit ederek göreceli ağırlıklarına ve önem derecelerine göre sıralamalarını belirlemektir. Literatür taramasına göre sağlık tesislerinde enerji verimliliğini etkileyen; enerji tüketiminin izlenmesi ve analizi, teknolojik ekipman seçimi, yenilenebilir enerji kaynaklarının kullanımı, aydınlatma sistemleri, bina tasarımı ve izolasyon, enerji farkındalığı ve eğitim ve iklimlendirme sistemleri (HVAC) olmak üzere 7 faktör tespit edilmiştir. Faktörlerin ağırlıklarını belirleyerek, önem derecelerine göre sıralamak için Bulanık AHP yöntemi kullanılmıştır. Analiz sonuçlarına göre, sağlık tesislerinde enerji verimliliğini etkileyen en önemli ve öncelikli faktörler sırasıyla %26,28 ağırlık ile "İklimlendirme Sistemleri (HVAC)"; %20,85 ağırlık ile "Bina Tasarımı ve İzolasyon" ve %17,43 ağırlık ile "Yenilenebilir Enerji Kaynaklarının Kullanımı" olarak tespit edilmiştir. Önem ağırlığı ve önceliği en düşük olan faktör ise %4,5 ağırlık ile "Teknolojik Ekipman Seçimi" olarak bulunmuştur. Sonuç olarak; sağlık tesislerinin verimliliğini etkileyen en önemli faktör olan iklimlendirme sistemlerinin enerji verimli modellerle yenilenmesi, sürekli bakım ve performanslarının izlenmesi, otomatik kontrol sistemleri ve sensör destekli çözümlerle ısıtma ve soğutma ihtiyacının optimize edilmesi gerekmektedir. Tesislerde ısı kaybını ve enerji tüketimini azaltmak amacıyla izolasyon kalitesinin artırılması, bina cepheleri, pencereler ve çatılarda yalıtım malzemelerinin güçlendirilmesi önemlidir. Ayrıca, yeni açılacak tesislerde sürdürülebilir mimari tasarımlar benimsenerek enerji verimliliği konusu gözardı edilmemelidir. Nitekim bu tesislerde güneş enerjisi veya jeotermal enerji gibi yenilenebilir enerji kaynaklarına yatırım yapılması da önerilmektedir. Özellikle geniş çatı alanına sahip hastaneler, güneş enerjisi panelleri kurarak elektrik ihtiyaçlarının önemli bir kısmını karşılayabilir.

**Anahtar Kelimeler:** Sağlık tesisleri, enerji, verimlilik, AHP, optimizasyon



## **Evaluation of Office Design Parameters in Terms of Developers and Building Managers: The Case of Ankara Province**

### ***/ Ofis Tasarım Parametrelerinin Geliştiriciler ve Bina Yöneticileri Açısından Değerlendirilmesi: Ankara İli Örneği***

Salih Demirkaya<sup>1</sup>  
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#### **Özet**

Ofisler mekânsal kurguları ve kullanım yoğunluğu nedeniyle karmaşık yapılar olup, birçok faktöre bağlı olarak mekânsal yapıları ve organizasyonu değişmektedir. Ofis yapılarının genellikle prestij unsuru olmasının yanı sıra yapısal özellikleri, yapım maliyeti, imar hakları, çevresel ve kentsel uyum, tasarımcı etkisi gibi birçok unsura bağlı olarak mekânsal kurguları farklılaşmaktadır. Mekanlara yönelik tasarım unsurlarına bağlı olarak ofislerde tesis yönetimine yönelik stratejilerin değişkenlik gösterdiği ve yönetim maliyetlerinin farklılaştığı belirtilmelidir. Ofislerin dinamik kullanımında önemli bir faktör olan tesis yönetiminin kullanıcılar, ziyaretçiler ve yöneticiler için önemli etkileri bulunmaktadır. Ofislerde işlevselliğin sürdürülebilmesi için en önemli faktörlerden biri olarak kullanıcıların konfor düzeylerinin sağlanması ve çalışma ortamına yönelik memnuniyet düzeylerinin artırılması başarılı tesis yönetimi ile mümkün olmaktadır. Yönetim faktörleri yönünden kullanılan mekan ile yönetici beklentileri ve tasarımcı kararları arasındaki ilişki bu çalışma kapsamında irdelenmiştir. Çalışmada Ankara ilinde bulunan seçilmiş ofis projelerindeki yöneticiler ile tasarımcılarla yapılmış görüşmelerden elde edilen veriler kullanılmıştır. Kullanıcılar ve yöneticilerin ofis tasarımları için beklentileri ve istekleri, mevcut ofis kullanımlarına ilişkin şikayetleri ve yaşanan sorunlarla karşılıklı olarak incelenmiştir. Ofis projelerinin yoğunlaştığı bölgeler olarak Ulus, Kızılay ofis bölgeleri ile mevcut durumda Ankara ili için ofis yapılaşmasında trend alanları olarak Söğütözü, Çukurambar, Eskişehir Yolu lokasyonlarındaki ofislerde paydaş görüşmeleri gerçekleştirilmiştir. Ofis ve tesis yöneticilerinin bakış açısıyla ofis tasarımları için ihtiyaç duyulan parametrelerle tasarımcıların görüşleri yönünden değerlendirmeleri içeren çalışmada gelecekte üretilebilecek ofisler için beklentiler tasarım unsurları düzeyinde araştırılarak, ofislerin geliştirilmesi için değerlendirilebilecek parametreler ortaya konulmuştur. Çalışmada elde edilen verilere göre tasarımcılar için öne çıkan tasarım parametrelerinin yapı için işlevselliği sağlayan özellikler ve altyapı unsurları olduğu dikkati çekmiş, tesis yöneticileri için

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sosyal olanaklar ve güvenlik unsurları öne çıkarken ofis yöneticileri için ise sosyal olanaklar, teknik altyapı, güvenlik ve verimlilik kriterlerine uygunluk özelliklerinin Ankara ili için üretilecek ofislerde dikkate alınması gerekliliği sonuçlarına ulaşılmıştır.

**Anahtar Kelimeler:** Ofis, tasarım parametreleri, tesis yönetimi

#### **Abstract**

Inheritance and Transfer Tax aims to tax assets transferred either through Offices are complex structures due to their spatial setup and intensity of use, and their spatial structure and organization change depending on many factors. In addition to the fact that office buildings are generally an element of prestige, their spatial setups differ depending on many factors such as structural features, construction cost, zoning rights, environmental and urban harmony, and designer effect. It should be noted that the strategies for facility management in offices vary depending on the design elements for the spaces and the management costs differ. Facility management, which is an important factor in the dynamic use of offices, has significant effects for users, visitors and managers. As one of the most important factors for maintaining functionality in offices, ensuring the comfort levels of the users and increasing the satisfaction levels of the working environment are possible with successful facility management. The relationship between the space used in terms of management factors and manager expectations and designer decisions is examined within the scope of this study. In the study, the data obtained from the interviews with the managers and designers in selected office projects in Ankara were used. The expectations and wishes of users and managers for office designs, their complaints about current office use and the problems experienced were mutually examined. Stakeholder meetings were held in Ulus and Kızılay office districts as the regions where office projects are concentrated, and in the offices in Söğütözü, Çukurambar and Eskişehir Yolu locations as trend areas in office construction for Ankara province. In the study, which includes the parameters needed for office designs from the perspective of office and facility managers and the evaluations in terms of the opinions of the designers, the expectations for the offices that can be produced in the future are investigated at the level of design elements and the parameters that can be evaluated for the development of offices are revealed. According to the data obtained in the study, it was noted that the prominent design parameters for the designers were the features and infrastructure elements that provide functionality for the building, while social facilities and security elements came to the fore for facility managers, it was concluded that the features of social facilities, technical infrastructure, security and efficiency criteria should be taken into account for office managers in the offices to be produced for Ankara.

**Key Words:** Office, design parameters, facility management



## Quality Management Systems and Accreditation Practices in Higher Education Institutions: Awareness and Satisfaction Analysis

### */ Yükseköğretim Kurumlarında Kalite Yönetim Sistemleri ve Akreditasyon Uygulamaları: Farkındalık ve Memnuniyet Analizi*

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#### Abstract

Quality has been discussed in higher education since the early 1980s. In some countries, such as the UK, “quality” has become a priority in higher education, while in France, a National Evaluation Committee has been established for this purpose, and the Netherlands has issued a policy statement in this context. These developments in higher education systems, with the adoption of more transparent, collaborative, and quality-oriented approaches, provide significant advantages in education and training, business success, and social dimensions. Quality in higher education has gained more importance due to globalizing education systems and increasing competition. The number of higher education institutions in Türkiye has increased the need for quality practices. This study aims to reveal how quality management system certification and accreditation processes work in higher education institutions, to examine whether the university supports provided meet the expectations of administrators, and to analyze the effects of these processes on students' satisfaction levels. In this framework, quality assurance and accreditation studies of higher education institutions were analyzed with legal regulations by examining the reports of official institutions and existing studies in the literature. The study evaluated the effects of quality management systems and accreditation studies on student satisfaction in higher education institutions according to the survey results applied to the students of Ankara University's undergraduate and graduate programs, and programs with international accreditation were examined explicitly as a case study. To evaluate student satisfaction, a questionnaire was applied to actively enrolled students in the fall semester of 2024-2025 and to academic staff working in the administrative positions of the faculties and departments of the university to analyze their expectations for quality management

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and accreditation processes and the university support provided. After the reliability and validity tests of the questionnaires prepared as data collection tools were carried out, the data obtained were analyzed, statistical validity tests were performed, and the significant results were evaluated. Research findings show that considering student opinions, demands, and complaints plays a critical role in increasing student satisfaction. Awareness of national and international accreditation and quality management systems was relatively low at the student level. This result reveals that regular information and training programs are needed to function effectively in quality processes. In addition, it is emphasized that the effective operation of monitoring and control mechanisms within the framework of the Plan, Implement, Check, and Measure (PDCA) cycle in undergraduate and graduate programs is essential for continuous improvement processes. It was concluded that data management should be handled carefully regarding the sustainability of the processes. The study's findings indicate that structural improvements and steps to raise awareness are needed for quality management systems and accreditations to be more effective in higher education. As a result, it should be emphasized that the university's financial, technical, and academic incentives and support in quality management and accreditation processes should be increased.

**Key Words:** Accreditation, quality management, total quality management, quality assurance system, and student satisfaction in higher education

### Özet

Kalite kavramı 1980'lerin başlarından başından itibaren yükseköğretim alanında tartışılmaya başlanmıştır. İngiltere gibi bazı ülkelerde "kalite", yükseköğretimde bir öncelik haline gelirken, Fransa'da bu amaçla Ulusal Değerlendirme Komitesi kurulmuş, Hollanda ise bu bağlamda bir politika bildirgesi yayımlamıştır. Yükseköğretim sistemlerindeki bu gelişmeler, daha şeffaf, işbirlikçi ve kalite odaklı yaklaşımların benimsenmesiyle, yalnızca eğitim ve öğretim alanında değil, aynı zamanda iş başarısı ve sosyal boyutlarda da önemli avantajlar sağlamaktadır. Yükseköğretimde kalite kavramı, globalleşen eğitim sistemleri ve artan rekabet ortamı nedeniyle daha fazla önem kazanmıştır. Özellikle Türkiye'de yükseköğretim kurumlarının sayısındaki artış, kalite uygulamalarına olan ihtiyacı artırmıştır. Araştırma ile kalite yönetim sistemi sertifikasyon ve akreditasyon süreçlerinin yükseköğretim kurumlarında nasıl işlediğini ortaya koymak, sağlanan üniversite desteklerinin yönetici beklentilerini karşılama durumlarını incelemek ve bu süreçlerin öğrencilerin memnuniyet düzeylerine olan etkilerini analiz etmek amaçlanmıştır. Bu çerçevede, yükseköğretim kurumlarının kalite güvencesi ve akreditasyon çalışmaları, resmî kurumlara ait raporlar ve literatürde mevcut çalışmalar incelenerek yasal düzenlemeler ile birlikte analiz edilmiştir. Çalışmada, yükseköğretim kurumlarında Kalite Yönetim Sistemi ile akreditasyon çalışmalarının



öğrenci memnuniyetine etkileri, Ankara Üniversitesi Lisans ve Lisansüstü Programlarının öğrencilerine uygulanan anketin sonuçlarına göre değerlendirilmiş ve uluslararası akreditasyona sahip programlar vaka çalışması olarak özel olarak irdelenmiştir. Öğrenci memnuniyetini değerlendirebilmek için 2024-2025 güz döneminde aktif kayıtlı olan öğrencilere ve üniversitenin fakülte ve bölümlerinde yönetim kadrosunda görevli olan akademik personele, kalite yönetim ve akreditasyon süreçlerine yönelik beklentilerinin ve sağlanan üniversite desteğinin analiz edilebilmesi için soru formu uygulanmıştır. Veri toplama aracı olarak hazırlanan soru formlarının güvenilirlik ve geçerlilik testleri yapıldıktan sonra, elde edilen veriler edilmiş ve istatistiksel geçerlilik testleri yapılarak anlamlı bulunan sonuçlar değerlendirilmiştir. Araştırma bulguları, öğrenci memnuniyetinin artırılmasında öğrenci görüş, talep ve şikâyetlerinin dikkate alınmasının kritik bir rol oynadığını göstermektedir. Ulusal ve uluslararası akreditasyon ile kalite yönetim sistemine ilişkin farkındalığın öğrenci düzeyinde oldukça düşük olduğu tespit edilmiştir. Bu sonuç kalite süreçlerinin etkin bir şekilde işleyebilmesi için düzenli bilgilendirme ve eğitim programlarına ihtiyaç duyulduğunu ortaya koymaktadır. Buna ilave olarak lisans ve lisansüstü programlarda; planla, uygula, kontrol et ve önlem al (PUKÖ) döngüsü çerçevesinde izleme ve kontrol mekanizmalarının etkili bir şekilde işletilmesinin, sürekli iyileştirme süreçleri açısından zorunlu olduğu vurgulanmaktadır. Veri yönetiminin, süreçlerin sürdürülebilirliği açısından dikkatle ele alınması gerektiği sonucuna ulaşılmıştır. Araştırma bulguları, yükseköğretimde kalite yönetim sistemlerinin ve akreditasyonların daha etkili olabilmesi için yapısal iyileştirmelere ve farkındalığı artırmaya yönelik adımlar atılması gerektiğine işaret etmektedir. Sonuç olarak; kalite yönetim ve akreditasyon süreçlerinde üniversite tarafından sağlanan finansal, teknik, akademik teşvik ve desteklerin artırılması gerekliliği vurgulanmalıdır.

**Anahtar Kelimeler:** Yükseköğretimde akreditasyon, kalite yönetimi, toplam kalite yönetimi, kalite güvence sistemi ve öğrenci memnuniyeti



## **Diagnostic Map of Input Parameters for Calculation of the Degree of Physical Depair in Determining the Market Value of a Real Estate Object Based on the Use of Fuzzy Logic Tools**

**Yuliya S. Dardziuk** <sup>1</sup>

**Natallia. P. Yalavaya** <sup>2</sup>

### **Abstract**

Currently, one of the most pressing urban planning issues is the quality of construction, which determines the service life of real estate. As a rule, building structures of buildings and structures with a significant service life have some damage. Correct determination of defects in building structures is necessary to maintain the working condition of buildings and structures and to assess the market value of a real estate object. Existing methods for assessing the technical condition of real estate objects are based mainly on instrumental studies. As an alternative approach to assessing the technical condition of real estate objects, one can use a visual inspection of structures based on an expert assessment of their technical condition. This approach can be especially useful when the data required for analysis are incomplete and inaccurate, especially in cases where it is necessary to make a decision quickly enough under uncertainty. One of the modern approaches used in various problems of decision-making under uncertainty is based on the use of the tools of the theory of fuzzy sets, the founder of which is L.A. Zade (1965). The use of the theory of fuzzy sets and its applications allows us to build formal schemes for solving problems characterized by one or another degree of uncertainty. The purpose of this research is to apply elements of fuzzy logic in calculating the physical depreciation of real estate and determining its market value. The practical significance of the obtained results consists in reducing the costs of calculating the degree of physical deterioration based on the technical condition of structural elements when determining the market value of a real estate object using the cost method by using elements of fuzzy logic. The Fuzzy Logic Toolbox package within the MATLAB environment was used as a software environment for creating a fuzzy logical inference system and a diagnostic map.

**Key Words:** Real estate object, fuzzy logic, physical deterioration, diagnostic card, technical condition

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## Focus on Innovation in Academic Environment

Alenka Temeljotov Salaj<sup>1</sup>

### Abstract

Universities today approach innovation goals as a part of an evolving process by modernizing programs and practices, responding to societal needs, competition and new technologies. Although being consistent in their core missions, expressed as education, knowledge creation, research and service to society, the market competition forces them to be more open and creative. Since 2015, many universities have slowly started to focus on innovation in their strategic documents, adding new goals such as innovation, entrepreneurship or transformation. A strategic orientation towards innovation was discussed at NTNU in 2021, with the objectives to establish better structure and incentives for innovation and creation; develop good tools and support functions and increase interactions with innovation centers. At that time, the Faculty of Engineering decided to increase and make visible the innovation activities in the academic environment and contribute to the sustainable innovation of the faculty. Therefore, the focus was on goals, such as: Holistic approach for education, research and innovation, Capacity building, and Maturity of idea and organization. Innovation ecosystem started with development of culture of innovation, building competences, creating a space for actions through increased cooperation with industry and the public sector, and the strengthening of a professionally integrated support apparatus. Findings show that STEM competences of engineering studies are no longer sufficient. Companies are looking for competences that are more closely related to the requirements for Industry 4.0 and Society 5.0. Results from survey show for construction companies that missing competences required from higher educated students are Innovation and systemic and analytical thinking, Management and planning of processes, technologies, and work with people, and Advanced data/IT skills, business, and entrepreneurial skills. In the Expert in Teams course, we tested a multidisciplinary approach aimed at sustainable transformation, cooperation and innovative products, which certainly increased the students' innovative competences.

**Key Words:** Innovation, education, competencies, Norway

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## **Policies on Real Estate Transaction in Smart City Era: Focusing on Cases in Korea**

**Myung-Cheol Shin<sup>1</sup>**

### **Abstract**

In Korea, smart city solutions have been solving urban problems and improving the quality of life of citizens by utilizing the technology of the 4th industrial revolution, and since the early 2000s, Korea has continuously developed smart city projects that combine existing urban infrastructure and advanced technologies. Thanks to this, various smart city solutions to solve social problems in cities were provided, which was no exception in the field of real estate transactions. In order to prevent such cases in Korea, where many tenants recently suffered from home rental (so called 'Jeonse' in Korean) scams, policies such as the establishment of an AI-based real estate abnormal transaction screening system and the advancement of the real estate transaction management system (RTMS) are being promoted. This paper will examine the current status and effects of Korea's real estate policy using ICT technologies, and examine tasks to be supplemented in the future.

**Key Words:** Fourth industrial revolution, smart city solution, home rental scam, real estate transaction management system, transaction screening system

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## Realtoring As an Example of Digitalization Technology in International Real Estate Market

Aliaksandr Martynenka <sup>1</sup>

Nikolai Trifonov <sup>2</sup>

Elena Khotsko <sup>3</sup>

### Abstract

Realtoring.com is one of the most visited digital real estate platforms that connects buyers and sellers from all over the world, enabling cross-border transactions. Currently, the Realtoring.com platform features more than 250,000 real estate properties in more than 85 countries, 800+ agencies and 350+ developers cooperate with it. This could be an example of digital transformation in international real estate marketing. Realtoring.com platform is a comprehensive product aimed at simplifying international real estate transactions. Platform capabilities are digitalization, promotion, real estate market analytics. The Realtoring affiliate sales system as a unique system that has no analogues in the world. The paper tells how to make cross-border real estate transactions effectively using the Realtoring affiliate sales system. The prospects of international partnership in the field of real estate purchase and sale in the world are discussed.

**Key Words:** Realtoring platform, affiliate sales system in real estate, innovative real estate technologies, international real estate marketing, cross-border transactions

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## **Integrating Social Dimensions and Digital Technologies in the Conservation of Traditional Architectural Heritage: The Case of As-Salt, Jordan**

**Rania Aburamadan<sup>1</sup>**

### **Abstract**

Historic cities increasingly serve as vital reflections of societal identity, particularly in the face of rapid global urbanization and modernization. However, in Jordanian cities, these processes have introduced challenges to preserving the authenticity and integrity of traditional architectural heritage. Addressing these challenges necessitates an inclusive approach to heritage conservation that integrates social and technological dimensions. Digital technologies are gaining recognition as transformative tools for advancing heritage conservation practices, with Heritage Building Information Modelling (HBIM) emerging as a key innovation. This paper focuses on the social potential of HBIM in the documentation and preservation of traditional heritage in Jordan, with the city of As-Salt serving as a case study. As-Salt, currently in the process of UNESCO World Heritage Site nomination, represents a city deeply rooted in cultural heritage, yet it faces significant pressures from regional instability, including the influx of Syrian refugees. Leveraging HBIM offers opportunities not only to conserve the city's rich architectural heritage but also to engage local communities and stakeholders in the preservation process, fostering a deeper connection to their urban identity. Through collaboration between Jordanian and UK universities, this study employs a qualitative methodology supported by diverse data sources. These include secondary data analysis, in-depth semi-structured interviews, focus groups with policymakers and heritage experts, direct observations, and digital surveys of traditional houses in As-Salt. The data were analyzed and triangulated to ensure robust insights. Findings reveal that HBIM holds significant promise as a tool to document, map, and visualize urban heritage, contributing to both conservation efforts and social engagement. The study highlights the importance of utilizing digital technologies to strengthen traditional architectural heritage while reinforcing As-Salt's cultural identity. The proposed outputs, including virtual 3D models and BIM objects, aim to support the construction sector and promote the value of traditional architecture in Jordan. By integrating technology with a socially grounded conservation approach, this research demonstrates the potential to sustain and celebrate the heritage of As-Salt for future generations.

**Key Words:** Heritage, urban identity, HBIM, Jordan, digital technology, As-Salt

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## **“Smart City” As an Innovation Project**

**Turdibekov Yusuf Ibragimovich<sup>1</sup>**

### **Abstract**

As a result of development, an individual perceives clear conditions for movement. A convenient ego label requires a mistake. While "city of mind" has been mentioned repeatedly, it signifies "cities of mind." "Um, Shahar" refers to the urban population of Yashash-keratin-Kutarish, the urban education of Khajaligi, and the information and educational activities of Samaradorligin Oshirishga. However, the Bund's well-known social and humanitarian organisations, such as Cegaralash, could oversee the observance of Olinmas under the Ushbu Kullash concept. Aklili Shahar's innovative design and development of cutting-edge solutions, which leading experts in the Ushbu field should consider, constitute the main objectives of the assessment.

**Key Words:** Smart home, smart transportation, smart housing and communal services, smart city

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## **Cognitive Map Production in The Context of Topophilia Theory and Its Relationship with Real Estate Markets: A Case Study of Beyoğlu District**

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**Rehan Sadiq<sup>3</sup>**  
**Harun Tanrıvermiş<sup>4</sup>**

### **Abstract**

Topophilia, a concept referring to the emotional bonds and affection people have for certain places, is a key element in understanding the perception of space and its implications for real estate values. In this context, cognitive map analysis emerges as a vital tool for examining how individuals perceive their environments and how this perception influences economic outcomes in real estate. Cognitive maps reflect how individuals mentally organize spaces and locations, shaped by personal experiences, cultural factors, and social interactions (Lynch, 1960). This perception of space plays a critical role in property valuation, as emotional attachment to a location can directly impact its economic value. Studies in the literature exploring the relationship between place attachment and property values often consider environmental features, transportation accessibility, and the availability of social services, alongside individual perceptions and experiences. Cognitive map analysis provides a robust framework to investigate the connection between the perception of places and their economic outcomes. Within the scope of topophilia theory, cognitive map analyses allow for a deeper understanding of how place attachment influences property demand and values, and how these impacts can inform spatial planning and development strategies.

Cognitive mapping of historical areas, in particular, serves as a powerful method to comprehend the spatial perception and collective memory associated with these regions. In this study, the Beyoğlu district of Istanbul was selected to investigate how individuals' perceptions of historical and cultural symbols, monuments, and structures influence real estate markets, spatial planning, and urban conservation strategies. Historical regions profoundly affect people's emotional connections to space due to their cultural heritage, structural composition, and accumulated social dynamics over time. Cognitive maps reveal

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how individuals perceive and mentally organize these areas, highlighting the spatial elements they prioritize.

In historical contexts, cognitive mapping illustrates how people experience place attachment, nostalgia, and the cultural significance of such areas. For instance, in Istanbul's Beyoğlu district, individuals often emphasize landmarks, historic buildings, narrow streets, and cultural symbols, which dominate their mental organization of the area. These features are more prominent in cognitive maps because they represent emotional and historical bonds. Results from cognitive mapping in historical regions can demonstrate how deep emotional connections between people and places influence the economic and social dynamics of these spaces. In areas like Beyoğlu, individuals tend to value the preservation of historical fabric and cultural significance, attributing higher value to such locations. Therefore, insights from these analyses are critical for shaping spatial planning, urban conservation, and real estate development strategies.

**Key Words:** Topophilia theory, cognitive map analysis, real estate investments, property demand, investment value, Beyoğlu district



## **Social Housing Approach Inspection of the Affordable Housing**

### ***/ Sosyal Konut Anlayışında Kiralanabilir Konutun İncelenmesi***

**Çağla Dalkıran<sup>1</sup>  
Yeşim Tanrıvermiş<sup>2</sup>**

#### **Abstract**

In addition to being an economic tool, housing is recognized as a place where individuals meet their need for shelter, and within the framework of the rights-based approach, the right to housing is recognized as a fundamental human right. The European Universal Declaration of Human Rights (1948), published after the Second World War, draws attention to the right to housing in a manner befitting human dignity with its article 25. In this century, when economic conditions have become more difficult and livelihood difficulties have increased, especially the economic conditions brought about by the pandemic have weakened the purchasing power of individuals and necessitated changes in the economic policies of countries. With the weakening of the purchasing power of individuals, increasing poverty has also been reflected in housing processes, and while some countries have easily found solutions to these problems with the traditional understanding of housing, the process is difficult for some countries. Housing policies also differ from country to country. The inability to meet the housing needs of low- and middle-income individuals has also affected housing policies. The most common method used by countries seeking solutions to the housing problem by developing different policies is social housing policies. The concept of social housing produced for the use of middle and low-income individuals varies according to countries. The study focuses on social housing policies and examines the concept of social rented housing in these policies. In particular, social housing policies are analyzed through the concepts of poverty and housing policies, and social rentable housing policies are evaluated through examples from around the world. The study also touches upon the history of housing policies and social housing policies in Türkiye and emphasizes the importance of affordable social housing in social housing policies. As a result of the world examples analyzed, it was evaluated that the social housing concept, which was shaped in European countries on the axis of the industrial revolution and world wars, has developed within the framework of different parameters for Türkiye. In European countries that use public resources effectively, low-cost housing is built and offered to the public for rent. In Türkiye, strong projects were built by TOKİ in the 2000s, but with a different understanding of social housing from European countries, social housing was presented in a way that could be purchased rather than rented. As a result of these

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evaluations, the suggestion that rentable social housing projects can be a solution to the housing problem of the low and middle income group is emphasized.

**Key Words:** Housing, poverty, housing policies, social housing, affordable housing

### Özet

Ekonomik bir araç olmanın yanı sıra bireylerin barınma ihtiyacını karşıladığı yer olarak kabul edilen konut ve hak temelli yaklaşım çerçevesinde konut hakkı temel insan hakkı olarak kabul edilmektedir. İkinci Dünya Savaşı sonrası yayınlanan Avrupa İnsan Hakları Evrensel Beyannamesi (1948) 25. maddesi ile insan onuruna yaraşır şekilde konut hakkına dikkat çekmektedir. Ekonomik koşulların zorlaştığı, geçim sıkıntısının arttığı bu yüzyılda özellikle pandeminin getirdiği ekonomik koşullar bireylerin alım gücünü zayıflatmış, ülkelerin ekonomi politikalarında değişiklikler yapılmasını zorunlu kılmıştır. Bireylerin alım gücünün zayıflaması ile artan yoksulluk barınma süreçlerine de yansımış, bazı ülkeler geleneksel konut anlayışı ile bu sorunlara kolaylıkla çözüm bulabilmişken bazı ülkeler için süreç zorlu geçmektedir. Konut politikaları da ülkeden ülkeye farklılık göstermektedir. Özellikle düşük ve orta gelirli bireylerin konut ihtiyacının karşılanmasında yetersiz kalınması konut politikalarını da etkilemiştir. Farklı politikalar geliştirerek konut sorununa çözüm arayışında olan ülkelerin en çok kullandığı yöntem sosyal konut politikalarıdır. Orta ve düşük gelirli bireylerin kullanımına yönelik üretilen sosyal konut anlayışı ülkelere göre değişiklik göstermektedir. Çalışma, sosyal konut politikalarına yönelerek bu politikalarda kiralanabilir sosyal konut anlayışının incelenmesi üzerine yoğunlaşmıştır. Özellikle yoksulluk ve konut politikaları kavramları üzerinden incelenen kiralanabilir sosyal konut politikaları dünya örnekleri üzerinden değerlendirilmiştir. Türkiye’de konut politikalarının tarihçesi ve sosyal konut politikalarına da değinilen çalışmada sosyal konut politikalarında kiralanabilir sosyal konut anlayışının önemi vurgulanmıştır. İncelenen dünya örnekleri sonucunda; Avrupa ülkelerinde sanayi devrimi ve dünya savaşları ekseninde şekillenen sosyal konut anlayışının Türkiye için farklı parametreler çerçevesinde geliştiği değerlendirilmiştir. Kamu kaynaklarını etkin kullanan Avrupa ülkelerinde düşük maliyetli konutlar inşa edilmekte ve halka kiralanabilir olarak sunulmaktadır. Türkiye’de ise 2000’li yıllar ile birlikte TOKİ tarafından güçlü projeler yapılmış ancak Avrupa ülkelerinden farklı sosyal konut anlayışı ile sosyal konutlar kiralanabilir şekilde değil satın alınabilir şekilde sunulmuştur. Bu değerlendirmeler sonucunda sosyal konut anlayışında kiralanabilir sosyal konut projelerinin dar ve orta gelir grubunun konut sorununa çözüm olabileceği önerisi vurgulanmıştır.

**Anahtar Kelimeler:** Konut, yoksulluk, konut politikaları, sosyal konut, kiralanabilir konut



## **An Examination of Local Governments and Their Legal Entities Within Local Governments in Solving the Problem of Housing Accessibility** */ Konuta Erişilebilirlik Sorununun Çözümünde Yerel Yönetimler ve Şirketlerinin İncelenmesi*

Sıla Nazile Tunçbilek<sup>1</sup>  
Harun Tanrıvermiş<sup>2</sup>  
Yeşim Tanrıvermiş<sup>3</sup>

### **Abstract**

Rapid urbanization and the gradual increase in the population living in cities have brought along the housing problem. Due to rising costs and high inflation, the increase in real estate purchase and sale as well as rental prices in cities has created an obstacle for families with average income levels to meet their housing needs and has caused a housing accessibility problem. This study aims to find a solution to the problem of access to housing in Türkiye due to the fact that real estate prices are higher than the average income growth of the urban population by providing effective management of existing real estate through the production of affordable housing that can be developed by legal entities within local governments. In this context, the legal status, financing sources and management of legal entities operating under local governments in Türkiye will be analyzed and their housing production models will be discussed. As a result of the analysis, solutions are proposed for the housing accessibility problem and the real estate management of local governments in Türkiye by increasing the housing stock through housing production to address the housing problems of the increasing urban population.

**Key Words:** Housing production of municipalities, social housing, municipal real estate management, KİPTAŞ, PORTAŞ, municipal cooperatives

### **Özet**

Hızlı kentleşme ile birlikte şehirlerde yaşayan nüfusun giderek artması, konut sorununu da beraberinde getirmiştir. Artan maliyetler ve yüksek enflasyondan dolayı kentlerde gayrimenkul alım-satım ile birlikte kira fiyatlarının artması ortalama gelir düzeyine sahip ailelerin konut ihtiyaçlarını karşılamalarının önünde engel yaratmış ve konuta erişilebilirlik sorununa neden olmuştur. Bu çalışma, Türkiye’de

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gayrimenkul fiyatlarının, kent nüfusunun ortalama gelir artışına göre daha yüksek olmasından dolayı meydana gelen konuta erişim sorununa yerel yönetimler bünyesindeki tüzel kişilerce geliştirilebilecek uygun fiyatlı konut üretimi ile mevcut gayrimenkullerin etkili yönetiminin sağlanarak konuta erişim sorununa çözüm bulmayı amaçlamaktadır. Bu kapsamda Türkiye'deki yerel yönetimler bünyesinde faaliyet gösteren tüzel kişilerin hukuki durumları, finansman kaynakları ve yönetimleri çerçevesinde incelenerek uyguladıkları konut üretim modelleri ele alınacaktır. İncelemenin sonucunda Türkiye'de yerel yönetimlerin artan kent nüfusunun konut sorunlarına yönelik konut üretimi ile konut stoğunun artırılarak konuta erişilebilirlik sorununa ve yerel yönetimlerin gayrimenkul yönetimlerine dair çözüm önerileri geliştirilmiştir.

**Anahtar Kelimeler:** Belediyelerin konut üretimi, sosyal konut, belediye gayrimenkul yönetimi, KİPTAŞ, PORTAŞ, belediye kooperatifleri



**Determination of Office Rents by Machine Learning  
Methods: The Case of Ankara Province**  
*/ Ofis Kiralarının Makine Öğrenmesi Yöntemleriyle Belirlenmesi:  
Ankara İli Örneği*

Uğur Şen<sup>1</sup>  
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Fahriye Nihan Özdemir Sönmez<sup>3</sup>

**Abstract**

Economic fluctuations, social and technological developments cause changes in the sectoral structure of the labour force and increases or decreases in the demand for modern office spaces. With the rapid growth of metropolises, office demand plays an important role in the formation of new sub-centres. The office rental market is directly affected by economic trends, political factors and changes in the sector, and for this reason, office rents should be determined by comprehensive methods that can be updated continuously and consider economic, environmental and spatial factors. In recent years, with the development of machine learning methods, innovative solutions are offered in determining rents in the field of real estate as in many sectors. Traditional valuation methods cannot fully explain the complex relationships between variables and are based on limited data and subjective assessments. On the other hand, machine learning methods seem to be a good alternative with high accuracy rates and the ability to perform multidimensional, fast and precise data analysis. The aim of the research is to find out which type of machine learning method performs better by using machine learning methods such as linear regression, decision trees, random forest, K-nearest neighbourhood, support vector machine, gradient boosting, artificial neural networks in addition to traditional valuation methods by considering variables such as physical characteristics, location, environmental factors and supply-demand balance that affect the rents of offices in various plazas in Çankaya district of Ankara province. Office rent data collected for Çankaya district of Ankara province is used in the study. In the performance evaluation process, criteria such as prediction accuracy and error rate of the algorithms were taken into consideration and the superiority of the models and in which cases they are more effective were revealed, contributing to the development of innovative and data-driven decision support tools for the real estate sector.

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**Key Words:** Office rent prediction model, machine learning methods, spatial analysis, variables affecting rental value

### Özet

Ekonomik dalgalanmalar, sosyal ve teknolojik gelişmeler; işgücünün sektörel yapısının değişmesine ve modern ofis alanlarına olan taleplerde artmalara veya azalmalara neden olmaktadır. Büyükşehirlerin hızla büyümesiyle birlikte yeni alt merkezlerin oluşmasında ofis talebi önemli rol oynamaktadır. Ofis kira piyasası, ekonomik eğilimlerden, siyasi unsurlardan ve sektördeki değişikliklerden doğrudan etkilenmektedir ve bu nedenle ofis kiralalarının sürekli güncellenebilen; ekonomik, çevresel ve mekânsal vb. faktörleri de dikkate alan kapsamlı yöntemlerle belirlenmesi gerekmektedir. Son yıllarda, makine öğrenmesi yöntemlerinin gelişimiyle birçok sektörde olduğu gibi gayrimenkul alanında da kiralaların belirlenmesinde yenilikçi çözümler sunulmaktadır. Geleneksel değerlendirme yöntemleri, değişkenler arasındaki karmaşık ilişkileri tam olarak açıklayamamaktadır, kısıtlı verilere ve öznel değerlendirmelere dayanmaktadır. Buna karşılık makine öğrenmesi yöntemleri, yüksek doğruluk oranları, çok boyutlu, hızlı ve hassas veri analizi yapabilme yeteneğiyle iyi bir alternatif olduğu görülmektedir. Araştırmanın amacı, Ankara ili Çankaya ilçesinde bulunan çeşitli plazalardaki ofislerin kiralalarını etkileyen fiziksel özellikler, konum, çevresel faktörler ve arz-talep dengesi gibi değişkenleri dikkate alarak geleneksel değerlendirme yöntemlerinin yanında, doğrusal regresyon, karar ağaçları, rastgele orman, K-en yakın komşuluk, destek vektör makinesi, gradyan artırma, yapay sinir ağları gibi makine öğrenmesi yöntemlerini kullanarak, hangi makine öğrenmesi türünün daha iyi performans gösterdiğini bulmaktır. Araştırmada Ankara İli Çankaya ilçesi için toplanan ofis kira verileri kullanılmıştır. Performans değerlendirme sürecinde, algoritmaların tahmin doğruluğu, hata oranı gibi ölçütler dikkate alınarak modellerin nasıl bir üstünlük sağladığı ve hangi durumlarda daha etkin olduğu ortaya konulmuştur ve gayrimenkul sektörü için yenilikçi ve veriye dayalı karar destek araçları geliştirilmesine katkı sağlanmıştır.

**Anahtar Kelimeler:** Ofis kira tahmin modeli, makine öğrenmesi yöntemleri, mekansal analiz, kira değerini etkileyen değişkenler



## An Examination of Developments in the Construction and Real Estate Sectors Within the Scope of Macroeconomic Variables

### */ İnşaat ve Gayrimenkul Sektörlerindeki Gelişmelerin Seçili Makroekonomik Değişkenler Çerçevesinde İncelenmesi*

Yunus Emre Kapusuz<sup>1</sup>  
Üstün Hatipoğlu<sup>2</sup>  
Harun Tanrıvermiş<sup>3</sup>

#### Abstract

One of the main economic sectors in Türkiye is the building industry and its subsectors. Similar to every other industry, the sector is greatly impacted by shifts in macroeconomic indices. The aim of this study is to examine and assess construction-related activities in light of certain macroeconomic factors. Monthly information from 2015:01 to 2022:10 was examined in the study. Based on the findings of the study, a cointegrated link between the exchange rate, producer price index, and construction costs was identified. Producer prices were identified as the source of construction costs, and the exchange rate was identified as the cause of producer prices based on the findings of the causality study. Although using assumptions is acceptable in some situations, it is important to remember that different dynamics reflect housing markets and construction operations.

**Key Words:** Housing prices, price index, construction costs

#### Özet

İnşaat sektörü, alt sektörleriyle birlikte Türkiye ekonomisinin öncü sektörleri arasındadır. Diğer tüm sektörlerde olduğu gibi makroekonomik göstergelerdeki değişimler sektörü önemli ölçüde etkilemektedir. Bu araştırmanın amacı, inşaat faaliyetlerinin seçili makroekonomik değişkenler çerçevesinde analiz edilmesi ve değerlendirilmesidir. Araştırmada 2015:01 ve 2022:10 dönemini kapsayan aylık veriler analiz edilmiştir. Araştırma sonuçlarına göre inşaat maliyetleri, üretici fiyat endeksi ve döviz kuru arasında eş bütünleşik ilişki tespit edilmiştir. Nedensellik analizi sonuçlarına göre ise döviz kuru, üretici fiyatlarının ve üretici fiyatları ise inşaat maliyetlerinin nedeni olarak belirlenmiştir. Varsayımların uygulanması belirli şartlar dahilinde uygun olsa da inşaat faaliyetleri ile konut piyasalarını temsil eden farklı dinamiklerin olduğunun göz önünde bulundurulması gerekli görülmektedir.

**Anahtar Kelimeler:** Konut fiyatları, fiyat endeksi, inşaat maliyetleri

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## Information Gathering for Local Property Taxation - The UK Experience

Patrick H. Bond<sup>1</sup>

### Abstract

For local property tax systems to work, assessing bodies need information. Taxable properties need to be identified, physical information about these properties and evidence of either capital or rental transactions are required in order to prepare valuations for taxation. Keeping an up to date list or cadastre of taxable individuals is also needed by the collecting authority.

This paper explores existing systems for collecting property and comparable information in the UK, together with providing an outline of the UK local property tax system. Problems with existing systems for collecting data, which have been very much based on assessors having to request information from taxpayers, albeit often with a regulatory backup for enforcement, are explained. Government proposals and new regulations for changing the requirements are set out, including implementation strategy.

A phased implementation is proposed to ensure acceptability. The new approach turns around the existing approach and places a requirement on taxpayers to supply information annually rather than only in response to a request. Likely problems are considered, and possible further improvements identified. The relevance to other jurisdictions is considered.

**Key Words:** Local property tax, rates, information, requirements upon taxpayers

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## Contribution of Carbon Tax Policy Towards Achieving Environmental Real Estate Practices: Bibliometric Analysis

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Yeşim Tanrıvermiş<sup>2</sup>  
Monsurat Ayojimi Salami<sup>3</sup>

### Abstract

Climate change has exposed individuals and businesses to a series of challenges that can potentially wipe out an excessive amount of the global GDP from the economy. This has made it crucial for the authorities of different countries to develop carbon tax policies that will enhance the quick transition process in adopting environmentally sustainable practices in various businesses and consumptions. This study employed qualitative analysis to achieve a series of carbon tax policies being adopted in different countries and to determine the effectiveness of the policy towards the transition to sustainable environmental real estate practices. The study used 3090 published articles from 2016 to 2024 obtained from scopus.com. Since the Paris Agreement on climate change was made in 2015. This study will use bibliometric analysis to provide insightful conclusions that could guide other countries that intend to adopt carbon tax policies. The finding revealed that the countries of focus of researchers are China, the United States, the United Kingdom, Australia, and Italy, with citations ranging from 246 to 2759. They also established total strength link ranges from 767 to 2802 to the research objectives. This implies that developed countries should play substantial roles in establishing the carbon tax policy that developing countries could adopt as they are technology to quantify the level of greenhouse gas adequately and the extent to which the policy adopted is effective.

**Key Words:** Carbon tax policy, real estate, construction, climate change, developed countries, developing countries

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## Updating Guidance on The Receipts and Expenditure Method for UK Local Property Taxation

Patrick H. Bond<sup>1</sup>

### Abstract

This paper examines the need to update the 1997 guidance prepared by the UK Joint Professional Bodies Rating Forum on the 'Receipts and Expenditure' or 'Profits' method of valuation in relation to its use for local property taxation. The revised guidance also to be applicable to the Republic of Ireland.

The various methods of valuation for local property taxation used in the UK are set out, together with the reasons for adopting particular methods. The Receipts and Expenditure method is the least used method. The methodology of the valuation basis is examined. Recent Upper Tribunal cases identified concerns about the approach to establishing the 'Tenant's Share'; problems with Director's Remuneration; Projection and Hindsight; and Depreciation. These and other current problems with the method are examined. Criticisms of the so called 'Shortened Method' are explored.

Consideration of the working group's draft and developing revised guidance is set out. Conclusions are reached on the suitability of the revised guidance and its application to different classes of property from comparatively small to extensive.

**Key Words:** Valuation, local property tax, rates, receipts and expenditure method

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## Reforms of the Real Estate Taxation System in Central Asian Countries

Nikolay Volovich<sup>1</sup>

### Abstract

During 35 years of independence, five countries of Central Asian – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan - have gone through the stage of establishing their statehood, including the creation of a national system of real estate taxation. Initially, their elites took the example of Russia because of the identity of the original Soviet experience, when the taxable base is based either on historical acquisition costs of real estate objects or on the normative value per area (Area-based) approved by the Government.

After 2010, a sharp rise in prices put these countries in front of choosing a real path of reform. As a result, now each country has formed its own model of real estate taxation based on current tasks. The help of foreign consultants does not help much due to the reluctance to form a transparent mechanism for controlling the prices of real transactions, although they are well known. These countries did not repeat the experience of Russia in forming a market-Value-oriented system of mass valuation of real estate, even in conditions of exceptionally strong presidential powers.

Firstly, the land resources of Central Asian countries are limited due to the overwhelming share of territories occupied by desert and mountainous massifs with a deficit of water resources (except Kyrgyzstan).

Secondly, the peoples of these countries have their own deep historical traditions of solving the most complex ethnic and cultural problems. State ownership of land and a soft tax regime make it possible to smooth out internal conflicts over the distribution of water and land resources.

Analysis of the regulation of land and property relations in allows us to draw the traditional conclusion that reforms are further possible only with the transfer to the local level of responsibilities for creating a database of transactions with full control of the tax authorities for their compliance with real data.

**Key Words:** National real estate taxation system, taxation model, tax regime, tax authorities, land and property relations

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## **An Overview of Fiscal Incentives to the Real Estate Sector and Urban Planning in Italy in the Period 1998-2024**

**Gastone Ave<sup>1</sup>  
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### **Abstract**

Since 1998 Italy has been at the forefront in using fiscal incentives to boost its real estate sector amid recurrent economic crises. This paper focuses on the measures put in place from 1998 to 2024 in response to economic downturns and relevant social and planning issues like earthquakes and other natural disasters. The paper has three parts.

The first one presents an overview of fiscal incentives used in the real estate sector. Investments in housing reached a record low level in the period 1991-1998, thus the introduction of groundbreaking new measures such as the fiscal incentives for housing renovation in 1998, followed in 2007 by new measures to boost energy savings in real estate. The international credit crunch originated by the Lehman Brothers default in 2008 led to expand the set of incentives targeted at renovating existing buildings. The earthquakes of 2009 and 2012 gave way to fiscal incentives targeted at reducing seismic risks. In 2020 it was introduced a subsidy to fund in full the renovation of private homes.

In the second part the paper goes in some depth in analyzing the pros and cons of public funding of housing in regions with high seismic risks, like the Italian regions of Marche and Emilia-Romagna. Finally, in the third part it is argued that the real estate sector has been sustained by a constant flow of fiscal incentives, which may be seen as a true housing policy, much more effective than short-lived housing plans. However, the lack of coordination between fiscal incentives and urban plans is still an open issue.

**Key Words:** Fiscal incentives, earthquakes, urban policies

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## **International Experience in the Application of Cadastral Value for Tax Purposes. Results of the Pilot Cadastral Assessment Project in the Kyrgyz Republic**

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**Almaz Arslanov**<sup>4</sup>

### **Abstract**

In recent years, more and more states determine the size of the tax base for real estate, focusing on its market value. Mass estimation methods, which are based on statistical models, are particularly popular. Specialized software packages are created for their implementation. The combination of market mechanisms used to determine the tax base makes it possible to ensure fair taxation. As a result, local authorities receive additional budget revenues, and citizens do not face an increase in the tax burden.

**Key Words:** Mass valuation, taxable base, Kyrgyzstan, standard of living

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## Impact of Floods on Residential Land Prices in Tokyo, Japan

Yuen Leng Chow<sup>1</sup>

### Abstract

This paper aims to understand the impact of heavy precipitation and rising sea levels on residential land prices located in areas with high risk of inundation, using Japanese data. Japan has continuously experienced earthquakes, tsunamis and floods. Therefore, Japan presents a natural experiment to understand the pricing dynamics of real estate assets in a world where climate change risk is not a one-off event but a continuous and real risk.

This research explores the following issues:

1. Whether consumers priced in climate change impacts leading to a significant price differential in flood-prone locations compared with non-flood-prone locations; and
2. Whether prices reflect a temporal trend, that is, with each subsequent flooding episodes, how do prices respond to a continuous environmental risk.

The research is focused on land transactions in the Tokyo Metropolitan area.

Research on land markets is promising. In an interesting paper, Severen et al. (2018) found agricultural land markets capitalize future climate change in their land prices. Zhai and Fukuzono (2003), using land prices from the Tokai region found that the Tokai flood effect has a reverse Z-shaped pattern on land prices.

This paper develops upon and extends on current studies on the impact of climate change on land prices. Findings from this research adds to the growing literature on understanding climate change (flooding) on asset prices, especially in the under-researched area of land prices. The findings would be useful to: policy makers and financial institutions in understanding the trajectory of asset prices after a natural disaster; households in understanding how buying property in a flood-prone location affects their household wealth; real estate market stakeholders in understanding the pricing dynamics of land transactions in the face of climate change.

**Key Words:** Floods, land prices, Japan

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## **Land-Related Conflicts and Urban Land Governance: An Evaluation of Land Management Systems in Hawassa City, Ethiopia**

**Solomon Dargie Chekole <sup>1</sup>**

### **Abstract**

Land, a fundamental factor of production alongside labor, entrepreneurship, and capital, plays a central role in driving economic growth and development. However, its sustainable utilization requires effective administration and management to avoid conflicts. As urbanization intensifies and populations grow, competition for land use escalates, leading to land-related disputes, particularly in cities like Hawassa. Despite the critical nature of this issue, there is a conceptual gap in understanding the causes and resolution mechanisms of urban land conflicts, especially from legal, social, and administrative perspectives. This study aims to fill this gap by assessing the historical evolution of land-related conflicts and analyzing their current status in Hawassa, using a mixed-methods research approach that integrates both qualitative and quantitative data collection techniques.

The findings from the study reveal that 51.6% of respondents identified land transfer through succession as a primary source of conflict, followed by 40.3% attributing conflicts to boundary disputes. Most landholders (75.8%) reported relying on formal conflict management systems, particularly courts, to resolve disputes. However, only 8.1% of respondents felt that land governance institutions responded effectively to community demands, and 50% stated there were no mechanisms to question or explain ongoing land activities. Furthermore, the study found that 79% of respondents believed formal conflict management should integrate customary mechanisms, such as mediation and arbitration, to improve outcomes. The study also found that the efficiency and timeliness of court interventions were unsatisfactory, with many respondents indicating that land disputes escalated due to delays in legal processes. Institutional weaknesses, including skill gaps among experts (identified by 40% of respondents), unstable leadership, political interference, and broader political instability were highlighted as significant barriers to effective urban land management. These challenges hinder the timely resolution of land disputes and obstruct the broader goals of sustainable urban development.

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To address these challenges, the study recommends a differentiated approach to conflict analysis, tailored to specific land conflict types and causes. A key recommendation is the implementation of a modern, up-to-date cadastral system, as 40% of respondents reported issues with improper land title issuance and boundary conflicts. This approach is critical for reducing land conflicts, ensuring transparency in land transactions, and supporting sustainable urban land management. By strengthening land management institutions, enhancing coordination with other stakeholders, and adopting modern technologies for land registration and mapping, urban areas like Hawassa can mitigate land-related conflicts and foster a more stable and efficient environment for urban growth and development. The study highlights the need for further research to explore the integration of formal and customary conflict resolution mechanisms and the development of more effective land governance frameworks that can better address the complexities of urban land management.

**Key Words:** Urban land conflicts; Land governance; Cadastral systems; Land registration; Conflict resolution mechanisms; Sustainable urban development



## **A comparative Analysis of YES-TR New Buildings & LEVEL(S)** */ YES-TR Yeni Binalar & LEVEL(S) Çerçevesinin Karşılaştırmalı Analizi*

**Duygu Erten<sup>1</sup>**

### **Abstract**

Maintaining the transition to a circular economy and economic growth while achieving targets in line with the Paris agreement in the buildings sector has been one of the main priorities for all countries. LEVEL(s) is an initiative launched in 2017 by the European Commission that aims to standardize and harmonize the way sustainability is assessed and measured in the construction sector across Europe. This research aimed to compare the content of the local green building certification system (YES-TR) created by the Ministry of Environment, Urbanization and Climate Change of Türkiye with the Level(s) indicators or "New Buildings". The purpose of this comparative study is to create transparency on the interaction of YES-TR requirements with the objectives formulated by Level(s). The comparison was made for YES-TR version 1/Level(s) indicators. The benchmark is to provide the basis for the harmonized reporting of YES-TR and Level(s), as well as for the use and creditworthiness of Level(s) appropriate information in the certification process. Level(s) are designed by the EU for construction industry stakeholders to report on the environmental performance of buildings. Using indicators based on existing tools and standards, Level(s) users reveal the cost of energy, materials, water, health and comfort, climate change, and life cycle of buildings. There are 3 levels in Level(s). Level 1 corresponds to the concept/design phase, level 2 corresponds to the end of the planning and execution phase, and level 3 corresponds to the entry to the completion and even use phase. Basically, level 2 is calculated with planning data, and level 3 with data from the actually constructed building. In the YES-TR System for the New Construction, Buildings, Version 1, the usage phase is not taken into account, but there is a YES-TR System to assess the Existing Buildings. Level(s) common indicator sets can be adapted by the various certification programs or assessments, including YES-TR. The research results provide an overview of the overlaps between the YES-TR criteria and the Level(s) indicators; Here a distinction is made between the three levels of Level(s). Depending on the reporting date of a construction or renovation project, a level of knowledge is required with varying levels of accuracy and scope, adapted to the relevant situation.

**Key Words:** Level(s), YES-TR, harmonization, environmental performance, standards

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## Özet

Döngüsel bir ekonomiye geçiş ve ekonomik büyümeyi sürdürürken binalar sektöründe Paris anlaşmasıyla uyumlu hedeflere ulaşmak tüm ülkeler için temel önceliklerden olmuştur. LEVEL(s), Avrupa Komisyonu tarafından geliştirilen, Avrupa genelinde inşaat sektöründe sürdürülebilirliğin değerlendirilme ve ölçülme şeklini standartlaştırmayı ve uyumlu hale getirmeyi amaçlayan 2017 yılında başlatılan bir girişimdir. Bu araştırma, “Yeni Binalar” için, Türkiye Çevre, Şehircilik ve İklim Değişikliği Bakanlığı tarafından oluşturulan yerel yeşil bina sertifika sistemi- YES-TR içeriğinin Level(s) göstergeleri ile karşılaştırılmasını amaçlamıştır. Bu karşılaştırmalı çalışmanın amacı, YES-TR gerekliliklerinin Level(s) tarafından formüle edilen hedeflerle etkileşimi konusunda şeffaflık yaratmaktır. Karşılaştırma YES-TR version 1/Level(s)göstergeleri YES-TR için yapılmıştır. Karşılaştırma, YES-TR ve Level(s)’ın uyumlu raporlanmasının yanı sıra sertifikasyon sürecinde Level(s)’a uygun bilgilerin kullanımı ve kredibilitesi için temel oluşturmaktır. Level(s), AB tarafından inşaat sektörü paydaşlarının binaların çevresel performansı ile ilgili raporlama yapmaları için tasarlanmıştır. Mevcut araçlara ve standartlara dayalı göstergeleri kullanarak, Level(s) kullanıcıları binaların enerji, malzeme, su, sağlık ve konfor, iklim değişikliği ve yaşam döngüsü maliyetini ortaya koymaktadır. Level(s)’da 3 seviye vardır. Seviye 1, konsept / tasarım aşamasına, seviye 2 planlama ve yürütme aşamasının sonuna ve seviye 3 tamamlanma ve hatta kullanım aşamasına girişe karşılık gelir. Temel olarak, seviye 2 planlama verileri ile ve seviye 3 fiilen inşa edilen binanın verileri ile hesaplanır. YES-TR Sistemi Yeni İnşaat, Binalar, Versiyon 1’de kullanım aşaması dikkate alınmamakta, ancak YES-TR Sistemi Varolan Binalarda yer almaktadır. Level(s) ortak gösterge setleri, YES-TR dahil olmak üzere mevcut çeşitli sertifikasyon programları veya değerlendirmeleri tarafından uyarlanabilir. Sonuçlar YES-TR kriterleri ile Level(s) göstergeleri arasındaki örtüşmelere genel bir bakış sağlar; Burada üç Level(s) seviyesi arasında ayırım yapılır. Bir inşaatın raporlama tarihine bağlı olarak veya yenileme projesi, ilgili duruma uyarlanmış, değişen doğruluk ve kapsam seviyelerinde bilgi düzeyi gereklidir.

**Anahtar Kelimeler:** Level(s), YES-TR, uyumlaştırma, çevresel performans, standartlar



## Real Estate Policy: Disaster Risk and State Regulation

Mubariz Mammadli <sup>1</sup>

### Abstract

Disaster risk affects real estate values and investment decisions in high-risk areas (e.g. coastal areas, floodplains or seismic zones). Therefore, real estate developers and investors should take certain measures and direct appropriate projects to reduce disaster risks in their projects. In addition, insurers and financial institutions, which have a significant share in this sector, also evaluate and price disaster risk for real estate properties. These issues make disaster risk and related public regulations important today. In other words, state regulation should always have disaster preparedness. As a result of these regulations, real estate development in high-risk disaster areas should be properly guided. The vulnerability of real estate to natural disasters should be reduced with existing zoning laws and building codes. Here, the question is, "Should governments impose stricter regulations on construction in disaster-prone areas?" or "Should this be left to market forces and the private sector?" As we know, natural disasters affect all socio-economic dimensions of life. In other words, natural disasters affect local real estate markets with both short-term and long-term effects. In this process, governments can offer different financial incentives such as resilient building practices, recovery incentives, tax reductions or subsidies. It is very important to determine the level and size of such aid for socio-economic development. One of the important issues here is the effects of disaster risk on mortgage loans, property insurance and real estate financing. In addition, climate change also creates different risks. One of the controversial issues in addressing such issues is associated with public-private partnerships. Namely, it should be discussed how this level of partnership plays a role in creating resilient infrastructure and real estate projects in disaster-prone regions and an appropriate work plan should be prepared. Another important factor in the study of this issue is related to economic growth targets. Governments can achieve economic growth and housing development needs by reducing disaster risks. In addition, the cost of disaster insurance can be regulated by the government to ensure that it remains affordable for property owners in high-risk areas. How regulators can ensure that property developers and property owners comply with disaster resilience standards and what penalties will be applied in case of non-compliance is also a matter of discussion. Here, international standards or agreements can play a role in shaping national disaster risk regulations in real estate markets. Thus, this study addresses the issue of disaster risk management and state regulation in the context of real estate markets, and the identified work problems are examined under subheadings.

**Key Words:** Disaster risk, state regulation, real estate, economic growth, losses

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## Urban Territorial Resilience in Tamansourt: Pondering on Planning Deficiencies and Challenges

Kaoutare Alaoui<sup>1</sup>  
Hassan Radoine<sup>2</sup>  
Kh Md Nahiduzzaman<sup>3</sup>

### Abstract

This study rigorously analyzes the urban planning techniques of Tamansourt, a satellite city of Marrakech, emphasizing the issues associated with an economic growth-oriented approach that overlooks comprehensive, human-centered principles. This study employs a qualitative methodology, comprising of a literature review, document analysis, and observational investigations, to identify discernible shortcomings in the current planning frameworks. This encompasses insufficient inclusion, inadequate usage of local resources, and limited incorporation of environmental sustainability principles. The study results underscore the pressing need for transformative resilience measures that correspond with Tamansourt's distinctive physical and cultural attributes. The proposed way forwards prioritize participatory planning, utilize local resources and cultural heritage, and integrate sustainability into urban development praxis. These policies seek to transform Tamansourt into a vibrant urban center that harmonizes economic development with social and environmental sustainability. By addressing these shortcomings, the study offers significant insights for other contexts encountering analogous urban territorial planning and deficient resiliency. It emphasizes the significance of inclusive, resource-focused, and sustainable urban planning methodologies to promote territorial development and resilience in rapidly urbanizing regions.

**Key Words:** Territorial resilience, urban planning, urbanization

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**BIM Applications in Infrastructure Projects in Türkiye:  
Current Status, Challenges and Development Potential  
/ Türkiye’de Altyapı Projelerinde Yapı Bilgi Modellemesi (BIM)  
Uygulamaları: Mevcut Durum, Karşılaşılan Zorluklar ve Gelişim  
Potansiyeli**

**Mehmet Ülger<sup>1</sup>  
Yağmur Özdemir<sup>2</sup>**

**Abstract**

This study addresses the current status, challenges and development potential of Building Information Modeling (BIM) applications in infrastructure projects in Türkiye. First, the basic principles of BIM, its development at the international level and its importance in infrastructure projects are examined; then the legal regulations, standards and the roles of public-private actors in Türkiye are focused. The quality, collaboration, coordination, time and cost advantages that BIM offers to infrastructure projects are explained together with relevant examples in the literature. However, the full realization of these advantages requires improvements in areas such as breaking traditional process habits, improving technological infrastructure and data standardization.

In the light of international comparisons, it is seen that Türkiye has the potential to improve in terms of BIM maturity level compared to the USA and some European countries, and in this direction, it is emphasized that policy makers, educational institutions and stakeholders in the industry should work together to expand BIM applications on a more solid ground. In conclusion, this paper aims to provide useful information to the literature and practitioners by providing recommendations for accelerating the process of transition to BIM in infrastructure projects in Türkiye, mitigating challenges and establishing future strategies.

**Key Words:** BIM, infrastructure projects, BIM maturity level, BIM integration, BIM processes

**Özet**

Bu çalışma, Türkiye’de altyapı projelerinde Yapı Bilgi Modellemesi (BIM) uygulamalarının mevcut durumunu, karşılaşılan zorlukları ve gelişim potansiyelini ele almaktadır. İlk olarak BIM’in temel ilkeleri, uluslararası düzeydeki gelişimi ve altyapı projelerindeki önemi irdelenmekte; ardından Türkiye’deki yasal düzenlemeler,

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standartlar ve kamu-özel sektör aktörlerinin rollerine odaklanılmaktadır. BIM'in altyapı projelerine sunduğu kalite, işbirliği, koordinasyon, zaman ve maliyet avantajları, literatürdeki ilgili örneklerle birlikte açıklanmaktadır. Ancak bu avantajların tam olarak hayata geçirilmesi, geleneksel süreç alışkanlıklarının kırılması, teknolojik altyapının iyileştirilmesi ve veri standardizasyonu gibi alanlarda iyileştirmeler gerektirmektedir.

Uluslararası karşılaştırmalar ışığında Türkiye'nin, ABD ve bazı Avrupa ülkelerine kıyasla BIM olgunluk düzeyi bakımından gelişme potansiyeline sahip olduğu görülmekte, bu doğrultuda politika yapıcıların, eğitim kurumlarının ve endüstrideki paydaşların birlikte çalışarak daha sağlam bir zeminde BIM uygulamalarını genişletmeleri gerektiği vurgulanmaktadır. Sonuç olarak, bu makale Türkiye'de altyapı projelerinde BIM'e geçiş sürecinin hızlandırılması, zorlukların azaltılması ve gelecek stratejilerinin oluşturulması için öneriler sunarak, literatüre ve uygulayıcılara yararlı bilgiler sağlamayı amaçlamaktadır.

**Anahtar Kelimeler:** BIM, altyapı projeleri, BIM olgunluk düzeyi, BIM entegrasyonu, BIM süreçleri



**The Effects of Climate Change on Ankara's Urban  
Transportation and Evaluation of Making Urban  
Transportation Resistant to Climate Change  
/ İklim Değişikliğinin Ankara'nın Kent İçi Ulaşımına Olan Etkilerinin  
ve Kent İçi Ulaşımın İklim Değişikliğine Dirençli Hale Getirilmesinin  
Değerlendirilmesi**

**Sevilay Dinçer<sup>1</sup>  
Mehmet Salih Kırgıl<sup>2</sup>  
Yeşim Tanrıvermiş<sup>3</sup>**

**Abstract**

Transportation is an issue that needs to be addressed in social, economic and environmental issues. Climate change leads to some negative effects on urban transportation systems in Ankara such as longer travel times, decreasing air quality, changes in traffic density due to increasing temperatures and irregular precipitation, an increase in energy consumption in transportation. In addition, it threatens the durability of the transportation infrastructure that is also damaged; passenger and freight transportation is interrupted and causes a decrease in urban resilience in general. For this reason, making urban transportation systems resistant to climate change is of critical importance both in terms of environmental sustainability and public health. The aim of the study is to investigate the effects of climate change on urban transportation in Ankara and to evaluate how to make urban transportation resistant to climate change with reference to the possible solutions. The method of the study employs relational research model in the collection and evaluation of data. It is aimed to establish the relationship between climate change and transportation and urban resilience in this context. It is possible to increase the use of public transportation within the scope of sustainable and climate-resistant urbanization and in the fight against climate change to encourage public transportation through public transportation-oriented urban planning, the determination of convincing price policies, public awareness and education programs, integrated transportation systems, sustainable design practices in order to make the transportation systems of cities more sustainable. The resilience of urban rail systems, electric buses, trolleybus infrastructures should be ensured in urban transportation, high permeability coating material should be used on hard floors of structures such as parking lots, squares, sidewalk roads to eliminate the destructive effects of floods and streams as a result of heavy rains, green roofs, green stations and bus-stops and similar areas will be made and some of the water will be absorbed into the soil in heavy rains. In Ankara,

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regions such as Kavaklıdere, Cevizlidere, Bentderesi, İncesu are at risk of serious flooding in every heavy rainfall. Closed stream beds can be considered as recreation areas or drainage channels. In case of emergency, alternative bus routes and lanes can be used for response and evacuation. Synergies should be created between climate change mitigation and adaptation strategies.

**Key Words:** Urban transportation, climate change, public transportation, greenhouse gas emissions, Ankara

### Özet

Ulaşım toplumsal, ekonomik ve çevresel konularda ele alınması gereken bir konudur. İklim değişikliği, Ankara'da kent içi ulaşım sistemleri üzerinde yolculuk sürelerinin uzaması, hava kalitesinin düşmesi, artan sıcaklıklar nedeniyle trafik yoğunluğunda değişiklik ve yağışların düzensizleşmesi, ulaşım kaynaklı enerji tüketimindeki artış vb. bazı olumsuz etkilere yol açmaktadır. Ayrıca ulaşım altyapısının dayanıklılığını tehdit etmekte ve ulaşım altyapısı hasar görmekte, yolcu ve yük taşımacılığı aksamakta ve genel olarak kentsel direncin azalmasına sebep olmaktadır. Bu sebeple kent içi ulaşım sistemlerinin iklim değişikliğine dayanıklı hale getirilmesi, hem çevresel sürdürülebilirlik hem de halk sağlığı açısından kritik öneme sahiptir. Çalışmanın amacı; Ankara'da iklim değişikliğinin kentiçi ulaşım üzerinde etkilerini araştırmak ve çözüm önerilerinin geliştirilerek kent içi ulaşımın iklim değişikliğine dirençli hale getirilmesinin değerlendirilmesidir. Çalışma kapsamında, verilerin toplanması ve değerlendirilmesinde ilişkisel araştırma modeli kullanılmıştır. İklim değişikliği ile ulaşım ve bu kapsamda kentsel dirençlilik arasındaki ilişkinin kurulması hedeflenmiştir. Sürdürülebilir ve iklim dirençli kentleşme kapsamında ve iklim değişikliği ile mücadelede toplu taşıma kullanımını artırmak, şehirlerin ulaşım sistemlerini daha sürdürülebilir hale getirmek için toplu taşıma odaklı kentsel planlama, ikna edici ücret politikalarının belirlenmesi, halkı bilgilendirme ve eğitim programları, entegre ulaşım sistemleri, sürdürülebilir tasarım uygulamaları ile toplu taşımayı özendirmek mümkündür. Kent içi ulaşımında kent içi raylı sistemler, elektrikli otobüs, trolleybus altyapılarının dirençliliği sağlanmalı, şiddetli yağışlar sonucu sel ve taşkınların yıkıcı etkilerini bertaraf etmek için otopark, meydan, kaldırım yol vb. yapıların sert zeminlerinde geçirgenliği yüksek kaplama malzemesi kullanılmalı, yeşil çatı, yeşil istasyon ve durak vb. alanların yapılması ile şiddetli yağışlarda suyun bir kısmının toprakta emilimi gerçekleşecektir. Ankara'da Kavaklıdere, Cevizlidere, Bentderesi, İncesu gibi bölgeler her şiddetli yağışta ciddi su baskınları riski altındadır. Kapatılmış dere yatakları rekrasyon alanları veya drenaj kanalları olarak değerlendirilebilir. Acil durumlarda müdahale ve tahliye alternatif otobüs yolları ve şeritleri kullanılabilir. İklim değişikliği azaltım ve uyum stratejileri arasında sinerji oluşturulmalıdır.

**Anahtar Kelimeler:** Kent içi ulaşım, iklim değişikliği, toplu taşıma, sera gazı emisyonu, Ankara



## The Applicability of Sentiment Analysis in Transit-Oriented Development (TOD) Studies */ Transit Odaklı Geliştirmeye (TOD) Yönelik Çalışmalarda Duygu Analizinin Uygulanabilirliğinin Değerlendirilmesi*

Harun Tanrıvermiş<sup>1</sup>  
Emine Baydan<sup>2</sup>

### Abstract

In urban spaces, the scarcity of urban land supply and high land prices encourage movement away from city centers towards suburban areas. Therefore, urban planning approaches must be considered from environmental, spatial, economic, and social dimensions. The Transit-Oriented Development (TOD) approach is based on intensifying the built environment along public transit nodes and corridors, aiming to strengthen the integration of transportation and land use planning. The rise in social media usage in the technology era makes it necessary to integrate the sentiments and opinions of urban residents, which shape the space, into spatial planning and investment decision-making processes. This study aims to examine the applicability of sentiment analysis methods in TOD studies, real estate investments, and transportation planning processes to understand the interaction between urban transportation services and land use and the impacts of urban sprawl. The study investigates which scientific disciplines the sentiment analysis method has been applied to in national studies conducted in Türkiye and the techniques used. Based on literature reviews and analyses, the importance of sentiment analysis methods is emphasized, and their applicability in transportation planning and TOD approaches in Türkiye is evaluated. Findings indicate that sentiment analysis methods support a human-centered approach in TOD and transportation planning processes, allowing for an adequate reflection of societal perceptions and needs. While the TOD approach aims to optimize the use of urban areas, integrating human-centered planning and social media data helps better reflect societal perceptions and needs. However, risks of gentrification and issues such as data accuracy and biases must be carefully addressed. The potential for creating sustainable urban spaces and promoting equitable practices within urban environments through a TOD approach can be enhanced by integrating user sentiments, thereby transforming decision-making processes into a more informed framework.

**Key Words:** Transit-Oriented Development (TOD), urban land use, urban space, urban sprawl, sentiment analysis, and the analysis of social media data

### Özet

Kentsel mekânlarda kentsel arazi arzının kısıtlılığı ve yüksek arazi fiyatları, kent merkezlerinden uzaklaşmayı ve kent çeperlerine doğru yayılmayı teşvik etmektedir. Bu nedenle kent planlama anlayışının; çevresel, mekânsal, ekonomik ve sosyal boyutlarıyla ele

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alınması gerekmektedir. Transit Odaklı Geliştirme (TOD) yaklaşımı, toplu ulaşım düğüm noktaları (nodes) ve toplu taşıma koridorları boyunca yapı çevrenin yoğunlaştırılması prensibine dayanmakta olup, ulaşım ve arazi kullanım planlaması entegrasyonunu güçlendirmeyi hedeflemektedir. Teknoloji çağında sosyal medya kullanımının artış göstermesi, mekânı şekillendiren kentli nüfusun duygu ve düşüncelerinin mekân planlama ve yatırım kararları süreçlerine entegre edilmesini zorunlu kılmaktadır. Bu çalışma, kent içi ulaşım hizmetleri ve arazi kullanımı arasındaki etkileşimi ve kentsel yayılmanın etkilerini anlamak için duygu analizi yönteminin TOD çalışmalarında, gayrimenkul yatırımları ve ulaşım planlama süreçlerinde uygulanabilirliğini incelemeyi hedeflemektedir. Çalışmada duygu analizi yönteminin Türkiye’de yapılan çalışmalarda hangi bilim dallarında uygulandığı ve hangi tekniklerin kullanıldığı araştırılmış olup, literatür araştırmaları ve analizlerinin sonuçlarına göre; duygu analizi yönteminin önemine vurgu yapılarak Türkiye’de ulaşım planlaması ve TOD yaklaşımına yönelik yapılacak çalışmalarda kullanılabilirliği değerlendirilmiştir. Bulgular, duygu analizi yönteminin TOD ve ulaşım planlaması süreçlerinde insan odaklı bir yaklaşımı destekleyerek, toplumsal algı ve ihtiyaçların daha etkin bir şekilde yansıtılmasını sağladığını göstermektedir. TOD yaklaşımı, kentsel alanların optimum düzeyde kullanımını hedeflerken, insan odaklı planlama ve sosyal medya verilerinin entegre edilmesiyle, toplumsal algı ve ihtiyaçların daha etkin biçimde yansıtılmasına olanak vermektedir. Ancak, mekânda mutenalaşma riskleri ve veri doğruluğu gibi önyargıların dikkatle ele alınması gerektiği vurgulanmalıdır. TOD yaklaşımı kullanılarak sürdürülebilir kentsel mekanlar oluşturma ve kentsel mekânda adil işlemlerin yaygınlaştırılması potansiyeli, kullanıcı duygularının entegrasyonu ile artırılabilir ve bu da karar alma süreçlerini daha bilinçli bir yapıya dönüştürebilecektir.

**Anahtar Kelimeler:** Transit odaklı geliştirme (TOD), kentsel arazi kullanımı, kentsel mekân, kentsel yayılma, duygu analizi ve sosyal medya verilerinin analizi



**Development of a Roadmap Proposal for Energy Efficient  
Urban Planning and Design and Opportunities for  
Integration into Real Estate Development Projects  
/ Enerji Etkin Kentsel Planlama ve Tasarıma İlişkin Yol Haritası  
Önerisinin Geliştirilmesi ve Gayrimenkul Geliştirme Projelerine  
Entegrasyonu Olanakları**

**H. Handan Yücel Yıldırım<sup>1</sup>  
Harun Tanrıvermiş<sup>2</sup>**

**Abstract**

With urbanization, a process parallel to industrialization and economic development, a large part of the population has started to live in urban areas. As urban populations grow rapidly, urban needs and the use of new technologies have increased, which has led to a rise in energy demand in urban areas. Growing energy demand driven by increasing population has highlighted the importance of research that examines relationship between energy and urban areas during urban planning and design processes. Due to the limited availability of energy generated from non-renewable natural resources like coal, natural gas, and oil, which are at risk of depletion, and the increasing environmental issues caused by those energy resources, the whole world is seeking ways to ensure continuous and reliable access to energy. In today's conditions and technology, meeting the energy need from renewable energy sources is also a very expensive method. Therefore, in order to meet the increasing energy demand, it is necessary to use existing energy efficiently, which is a more cost-effective approach. To this end, a conceptual framework encompassing principles, strategies, and methods for energy-efficient urban planning and design (EEKPT) was developed. Based on this framework, a draft survey was prepared to assess the importance of EEKPT principles. A five-point Likert-type scale consisting of 96 items (methods) and 19 factors (strategies) was obtained, which is thought to contribute to the development of a roadmap in the form of a checklist for the dissemination of EEKPT. In this context, in this study, validity and reliability analysis, which is one of the statistical techniques that have started to be used in every field with the advancement of technology and provides the opportunity to see and eliminate problematic items, if any, was used, the roadmap to be used in EEKPT was created and the possibilities of using this schedule in real estate development and especially projects that have a significant impact on urban space were discussed. In real estate development projects, the efficient use of

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energy and water resources, and more generally, the development of sustainable buildings are among the primary objectives. It is of special importance for decision-makers, investors, users and other stakeholders to examine that the housing need in our country can be met by real estate development projects that benefit from solar energy potential by revealing the micro and macro gains obtained through energy efficient building and sustainable settlement unit applications. In this research; strategies and methods related to the integration of EEKPT processes into real estate development projects and sustainability analysis in real estate projects were evaluated according to both general and field studies. The possibilities and success conditions for developing and implementing strategies based on the evaluation of the items and factors in the roadmap created for the integration of energy efficient planning and design into real estate projects will also be evaluated.

**Key Words:** Energy, energy-efficient urban planning and design, validity and reliability analysis, real estate development project

### Özet

Sanayileşme ve ekonomik gelişmeye paralel yaşanan bir süreç olan kentleşme ile nüfusun büyük bir bölümü kentlerde yaşamaya başlamıştır. Kentlerin nüfusu hızla arttığı için kente özgü ihtiyaçlar ve yeni teknolojilerin kullanımı artmıştır. Böylece kentsel alanlarda enerjiye olan talep de artmıştır. Artan nüfusun getirdiği enerji talebi artışı kentsel planlama ve tasarım aşamasında enerji ve kent arasındaki ilişkiyi gösteren araştırmalara önem verilmesine neden olmuştur. Kömür, doğalgaz, petrol gibi tükenme tehlikesiyle karşı karşıya olan yenilenemeyen doğal kaynaklardan sağlanan enerjinin sınırlı olması ve kaynakların yarattığı çevresel sorunların artması yüzünden dünyada, enerjiye sürekli ve güvenilir bir biçimde ulaşmanın yolları aranmaktadır. Günümüz şartlarında ve teknolojisinde yenilenebilir enerji kaynaklarından enerji ihtiyacının karşılanması oldukça pahalı bir yöntemdir. Bu nedenle artan enerji ihtiyacını karşılamak için daha ucuz bir uygulama olan mevcut enerjinin etkin kullanılması gerekmektedir. Bu amaçla, enerji etkin kentsel planlama ve tasarıma (EEKPT) ilişkin ilke, strateji ve yöntemleri içeren kavramsal bir çerçeve oluşturulmuş, çerçeveden yararlanarak EEKPT'ye ilişkin ilkelerin önem seviyesi anketi taslağı hazırlanmıştır. EEKPT'nin yaygınlaştırılması için kontrol listesi niteliğinde bir yol haritası geliştirilmesine katkı sağlayacağı düşünülen 96 madde (yöntem) ve 19 faktörden (strateji) oluşan beşli likert tipi bir ölçek elde edilmiştir. Bu kapsamda çalışmada, teknolojinin ilerlemesi ile her alanda kullanılmaya başlanan istatistiksel tekniklerden biri olan, problemleri maddeleri görme varsa giderme imkânı sağlayan geçerlilik ve güvenilirlik analizi kullanılmış, EEKPT'de kullanılacak yol haritası oluşturulmuştur. Yol haritasının gayrimenkul geliştirme ve kentsel mekân üzerinde önemli etkiye sahip olan projelerde kullanıma olanakları tartışılmıştır. Gayrimenkul geliştirme projelerinde enerji ve su kaynaklarının etkin kullanımı sürdürülebilir



yapıların geliştirilmesi temel hedeflerin başında gelmektedir. Enerji etkin bina ve sürdürülebilir yerleşme birimleri uygulamalarıyla elde edilen mikro ve makro kazanımları ortaya koyarak ülkemizdeki konut ihtiyacının, güneş enerjisi potansiyelinden faydalanan gayrimenkul geliştirme projeleri ile karşılanabileceğinin irdelenmesi, karar organları, yatırımcılar, kullanıcılar ve diğer paydaşlar açısından özel önem taşımaktadır. Bu araştırmada; EEKPT süreçlerinin gayrimenkul geliştirme projelerine entegrasyonuna ilişkin stratejiler ve yöntemlerin değerlendirilmesi ve gayrimenkul projelerinde sürdürülebilirlik analizinin hem genel hem de saha çalışmalarının sonuçlarına göre değerlendirilmesi yapılmıştır. Enerji etkin planlama ve tasarımın gayrimenkul projelerine entegrasyonu için oluşturulan yol haritasındaki madde ve faktörlerin değerlendirilmesine dayalı strateji geliştirme ve uygulama yapılması olanakları ve başarı koşulları da değerlendirilecektir.

**Anahtar Kelimeler:** Enerji, enerji etkin kentsel planlama ve tasarım, geçerlilik ve güvenilirlik analizi, gayrimenkul geliştirme projesi



**Evaluation of High-Rise Buildings in Ankara within the  
Scope of Energy Efficiency and Energy Use  
/ *Ankarada Yüksek Yapıların Enerji Verimliliği ve Enerji Kullanımı  
Kapsamında Değerlendirilmesi***

**Mehmet Salih Kırgıl<sup>1</sup>  
Mustafa Tombul<sup>2</sup>**

**Abstract**

There are many factors included in the formation of high-rise buildings. These factors are considered as urban, legal and executive, sociological, economic, comfort and technological factors. User behaviors take an important place in energy efficiency and energy use. It is considered that there is a strong link between user behavior and high-rise buildings' characteristics, construction year, landscape characteristics, building design, building type, apartment size and the materials used. If there is a change in the structure's features that would cause discomfort and affect user behavior users respond in a way that restoring their comfort. The most important common expense identifying energy efficiency and energy use in high-rise buildings is the amount of maintenance fees. Common expenses are amounts of money paid to finance the maintenance, repair and use of common areas in a community, such as a condominium or apartment building. These expenses cover services such as site security, cleaning, elevator, electricity, water, natural gas, etc. The fees are generally collected monthly. Expenses for the independent section such as heating, cooling, ventilation, natural gas, electricity, water, internet are assessed separately. Investigating the effects of energy efficiency and energy use on user behavior in high-rise buildings in a private site in Ankara and evaluating its environmental, social, technical and financial sustainability by developing solution proposals. Quantitative research model was utilized in collecting and evaluating data. The effects of energy efficiency and energy use on user behavior were examined. Extensive research has exhibited that high-rise buildings lack of financial sustainability. In interviews with flat owners, it is stated that the dues amount corresponds to 20 %-30 % of the rent. Its impact on the city's silhouette should also be evaluated separately. High buildings also create negative factors such as providing maximum profit from the land with minimum space, accommodating too many people, and isolating users from the city with their variety of functions. A

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classification system must be established and management models must be identified in order to achieve financial sustainability.

**Key Words:** High buildings, energy efficiency, energy use, dues Ankara

### **Özet**

Yüksek yapıların oluşumunda birçok faktör yer almaktadır. Bu faktörler kentsel, yasal ve yönetsel, sosyolojik, ekonomik, konfor ve teknolojik faktörler olarak düşünülmektedir. Enerji verimliliği ve enerji kullanımında ise kullanıcı davranışları önemli yer tutmaktadır. Kullanıcı davranışları ile yüksek yapıların özellikleri, inşaat yılı, yapılı çevrenin özellikleri, yapının tasarımı, yapının tipi, daire büyüklüğü ve kullanılan malzeme arasında bağlantı olduğu düşünülmektedir. Yapının özelliklerinde kullanıcı davranışlarını etkileyecek şekilde rahatsızlık verecek bir değişiklik meydana gelirse kullanıcılar konforlarını yeniden sağlayacak şekilde tepki vermektedir. Yüksek yapılarda Enerji verimliliği ve enerji kullanımını belirleyen en önemli ortak gider aidat miktarıdır. Ortak giderler, bir topluluk, site, apartman gibi ortak kullanılan alanların bakım, onarım ve çalışmasını finanse etmek için ödenen para miktarlarıdır. Bu giderler arasında, site güvenliği, temizlik, asansör, elektrik, su, doğal gaz vb. gibi hizmetler bulunmaktadır. Aidatlar genellikle aylık olarak ödenmektedir. Isıtma, soğutma, havalandırma, doğalgaz, elektrik, su, internet gibi bağımsız bölüme ait giderler ayrı olarak değerlendirilmektedir. Ankara'da özel bir sitede yüksek yapılarda enerji verimliliği ve enerji kullanımının kullanıcı davranışları üzerinde etkilerini araştırmak ve çözüm önerilerini geliştirerek çevresel, sosyal, teknik ve mali sürdürülebilirliğinin değerlendirilmesidir. Çalışma kapsamında verilerin toplanması ve değerlendirilmesinde nicel araştırma modeli kullanılmıştır. Enerji verimliliği ve enerji kullanımının kullanıcı davranışına etkisi incelenmiştir. Yapılan kapsamlı araştırmalarda yüksek yapıların mali sürdürülebilirliğinin olmadığı anlaşılmaktadır. Kat malikleri ile yapılan görüşmelerde kira miktarının %20-%30'u kadar aidat miktarının olduğu ifade edilmektedir. Şehrin silüetine olan etkisi de ayrıca değerlendirilmelidir. Yüksek yapılar minimum alan ile arsadan maksimum kar sağlaması ve çok fazla insan barındırması, işlev çeşitliliği ile kullanıcıları kentten koparması gibi olumsuz öğeleri de barındırmaktadır. Mali sürdürülebilirliğin gerçekleşmesi için sınıflandırma sisteminin oluşturulması ve yönetim modellerinin belirlenmesi gerekmektedir.

**Anahtar Kelimeler:** Yüksek yapılar, enerji verimliliği, enerji kullanımı, aidat Ankara



## **The Role of Land Pooling as a Means of Promoting Equitable and Efficient Urban Land Development**

**Geoffrey Payne<sup>1</sup>**

### **Abstract**

In 1791, George Washington was seeking to acquire land to develop the US capital, Washington DC. One landowner refused to sell his land so over dinner with all the landowners, Washington proposed that they all contribute their land in return for which they would receive a smaller area of fully serviced urban land which would be significantly more valuable than the agricultural land they were contributing. This was how the concept of land pooling began and since then it has been widely applied throughout Asia as well as in Australia.

It was introduced in India in 1915 as part of the development of Mumbai. Since then, it has been regularly applied in the state of Gujarat and is currently being applied in developing Amaravati, the new state capital of Andhra Pradesh. Covering an area of 217 square kilometers, land for the new city has been acquired mostly through a land pooling scheme. The paper will review the evolution of land pooling and its strengths and limitations, providing a basis for policymakers to assess the conditions under which it may be a suitable policy instrument for local application in different contexts.

**Key Words:** Land pooling, innovation

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## Tracing Urban Regeneration and Liveability in Ankara Through Individual Narratives

Cemre Şahinkaya<sup>1</sup>

Uwe Altröck<sup>2</sup>

Geoffrey Payne<sup>3</sup>

### Abstract

As cities experience rapid urbanization, they are continuously undergoing significant change and transformation, reshaping not only their physical environments but also the lives of their inhabitants. One of the key challenges of urbanization is improving the liveability of cities by enhancing the quality of life for residents. However, this is a complex, multifaceted and often subjective issue that requires to be assessed in a context-specific manner, acknowledging the unique circumstances and evolution of each urban environment. This study aims to explore how the liveability of Ankara, Türkiye's capital, has evolved over time, drawing on interviews conducted at four different neighbourhoods that experienced urban regeneration projects through the storytelling method, as part of an ongoing doctoral research project. By capturing the life stories of individuals who have witnessed and lived through Ankara's urban evolution in the last decades, the research seeks to reflect the impact of urban regeneration on the city's liveability. Additionally, in-depth interviews conducted by Geoffrey Payne in 1975 in similar parts of the city have been used as a reference point, allowing the findings to be analyzed from a longitudinal perspective. This will shed light on the changes in the liveability of the city in the last half century, especially in terms of housing, physical environment, economic and social relations through the narratives.

**Key Words:** Urban regeneration, liveability, storytelling, Ankara

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## **An Assessment of the Role of Communities in the Provision of Urban Housing**

**Geoffrey Payne<sup>1</sup>**

### **Abstract**

UN-Habitat estimated in 2018 that urbanisation could add another 2.5 billion people to urban areas by 2050. This represents an annual average increase of more than 78 million people, of which almost 90% will be in Asia and Africa. Today, a significant proportion of the existing urban population lack access to officially sanctioned housing, and access to adequate and affordable housing is even becoming more difficult in affluent countries, posing a massive challenge for governments and the international community.

Conventional approaches by the state and the private sector have failed to meet existing housing needs, so are unlikely to meet the unprecedented future demand. However, experience has shown that when provided with access to land on reasonable terms, people are capable of meeting their own housing needs in ways that can be improved over time. Pioneering research by people like Patrick Geddes, John F.C. Turner and others have demonstrated the major contribution of community-led housing approaches to meeting housing needs in ways that are financially viable and socially responsive. These account for a large proportion of all urban housing in many parts of the world yet are too often regarded as problematic rather than positive. This paper will highlight the positive role that community-led housing has achieved and provide some proposals for expanding on these to help build a better future for all.

**Key Words:** Housing, urban, affordability, community-led

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## **Evaluating the Interconnections of Indigenous Agriculture and Land-Use Systems for the Sustainable Development: A Case Study in the Southern Moroccan Sahara**

**Bulbul Ahmed<sup>1</sup>**  
**Kh Md Nahiduzzaman<sup>2</sup>**

### **Abstract**

Marginal farmers in the Southern Moroccan Sahara face unique challenges shaped by arid climate, scarce of water resources, and vulnerable ecosystems. The farming and livelihood systems basically depends on their reliance on traditional agricultural practices, such as oasis farming, water-saving techniques, and intercropping. Climate-induced disruptions pose significant challenges to the sustainability and resilience of marginal farmers who plays a pivotal role in rural agriculture, shaping land use and supporting the livelihoods of rural communities. Also shifting climatic patterns—such as altered precipitation, heat wave, and flash floods, affect agricultural productivity, land-use practices, and the stability of rural livelihoods. We would like to delve into the knowledge systems and practices of marginal farmers, examining how their farming and livelihood strategies interconnect with broader patterns of the use of local plants, cropping systems, land use and impact on the rural settlement dynamics. Also marginal farmers mostly depends on adaptive, resource-conserving techniques to tackle challenges, such as limited access to inputs, market constraints, and climate variability. These practices significantly influence local land use, affecting soil health, water management, and ecosystem services. The research highlights the reciprocal relationship between agricultural activities and rural settlements, where land use settings impact settlement patterns, and community structures shape farming viability. Analyzing these interconnections provides insights into the socio-economic resilience of marginal farming households. Finally, the findings underscore the need for inclusive policies that integrate traditional knowledge with innovative solutions to enhance productivity, sustainability, and the overall resilience of rural livelihoods in the face of environmental and economic pressures to promote sustainable development in the Southern Moroccan Sahara.

**Key Words:** Indigenous agriculture, climate, sustainable

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## **Nitrate Pollution in Agricultural Production: An Analysis in the Case of Türkiye**

### ***/ Tarımsal Üretimde Nitrat Kirliliği: Türkiye Örneğinde Bir Analiz***

**Osman Yıldız<sup>1</sup>**

#### **Abstract**

Increasing food demands due to population and income growth have brought along practices that increase production on the supply side. Increasing the use of chemical fertilisers in crop production in order to get more product from the unit area is one of the ways to expand production. In particular, the use of nitrate-based fertilisers causes an increase in the amount of nitrate in the soil structure and groundwater. In addition, the increasing amount of animal waste due to animal husbandry activities, especially livestock, and its direct use for crop production is another source of agricultural pollution. The nitrogen in the animal wastes goes down to the depths of the soil with the liquid flow, and the injection of nitrate into the groundwater results in soil pollution. In order to identify and control this process, it is of great importance to identify the soils where nitrate is concentrated and to determine the pollution rate of the waters in nitrogen-source areas, especially in places where livestock breeding activities are intensively carried out.

Nitrate Sensitive Areas (NSA) are defined as areas that contain more than 50 mg/l of nitrate due to agricultural pollution, affecting surface and groundwaters and natural freshwater lakes, other freshwater resources, estuaries and coastal waters that are determined to be eutrophic and may become eutrophic. In this study, NSAs were identified in 25 river basins of Türkiye in order to protect waters against agricultural-induced nitrate pollution. Firstly, specific pollution sensitivity maps of hydrogeological groundwater and hydrological surface water were determined. Secondly, agricultural pollution load index maps of the basin were created based on nitrogen (N) load caused by farmers' habits used in crop production, N load caused by animal husbandry activities, and total agricultural N load. Finally, both map layers created in the first and second steps overlapped according to the decision matrix, and the NSA status based on village boundaries was revealed. As the final output of the study, an action plan for preventing nitrate pollution caused by agricultural activities in waters is presented.

**Key Words:** Agricultural pollution, nitrate pollution, agricultural production, nitrate sensitive area, fertiliser

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## Özet

Nüfus ve gelir artışına bağlı olarak artan gıda talepleri, arz tarafında da üretimi artırıcı uygulamaları beraberinde getirmiştir. Bitkisel üretimde birim alandan daha fazla ürün almak için kimyasal gübre kullanımının giderek artması üretim artışı arayışlarından biridir. Özellikle nitrat bazlı gübrelerin kullanılması toprağın yapısında ve yeraltı sularında nitrat miktarının artmasına neden olmaktadır. Ayrıca, başta büyükbaş olmak üzere hayvancılık faaliyetlerine bağlı olarak artan hayvan atık miktarı ve bunun bitkisel üretim için doğrudan kullanımı da tarımsal kirliliğin bir diğer kaynağıdır. Hayvan atığı içindeki azotun sıvı akımı ile toprağın derinliklerine inerek yeraltı sularına nitratin enjekte olması toprağın kirlenmesiyle sonuçlanmaktadır. Bu sürecin tespit edilmesi ve kontrol altında tutulması için özellikle hayvancılık faaliyetinin yoğun yapıldığı yerlerde nitratin yoğunlaştığı toprakların tespiti ve azot kaynaklı alanlardaki suların kirlilik oranının belirlenmesi büyük önem arz etmektedir.

Nitrata Hassas Bölge, tarımsal kaynaklı kirlilikten dolayı 50 mg/l den fazla nitrat içeren, yer üstü ve yer altı suları ile ötrofik olduğu belirlenen, ötrofik hale gelebilecek tabii tatlı su göllerini, diğer tatlı su kaynaklarını, haliçler ve kıyı sularını etkileyen bölgeler olarak tanımlanmaktadır. Çalışmada, tarımsal kaynaklı nitrat kirliliğine karşı suların korunması amacıyla, Türkiye'nin 25 nehir havzasında Nitrata Hassas Bölgeler (NHB) belirlenmiştir. NHB'lerin belirlenmesinde ilk olarak, hidrojeolojik açıdan yeraltı sularının ve hidrolojik açıdan yerüstü sularının özgül kirlenme hassasiyet haritaları ortaya konulmuştur. İkinci olarak ise havzanın bitkisel üretimde kullanılan çiftçi alışkanlıklarından kaynaklı azot (N) yükü, hayvancılık faaliyetleri kaynaklı N yükü ve toplam tarımsal N yüküne dayalı tarımsal kirlilik yükü indeks haritaları oluşturulmuştur. Son olarak da birinci ve ikinci adımlarda oluşturulan her iki harita katmanı karar matrisine göre karşılaştırılarak köy sınırları bazında NHB durumu ortaya konulmuştur. Çalışmanın nihai çıktısı olarak sularında tarımsal faaliyetlerden kaynaklanan nitrat kirliliğinin önlenmesine yönelik bir eylem planı sunulmaktadır.

**Anahtar Kelimeler:** Tarımsal kirlilik, nitrat kirliliği, tarımsal üretim, nitrata hassas bölge, gübre



## **Vertical and Spatial Ownership Approach for New Types of Real Estate: Inadequacies of The Legislation and Solutions**

***/ Yeni Tip Taşınmazlar İçin Dikey ve Uzaysal Mülkiyet Yaklaşımı:  
Mevzuatın Yetersizlikleri ve Çözüm Önerileri***

**Cevdet Kılıç<sup>1</sup>  
Oytun Meçik<sup>2</sup>**

### **Abstract**

This study examines the adequacy of the current land registry legislation in addressing the independent ownership and registration needs of new types of immovable properties, such as viaducts, metro stations, and sea and lake fillings. The research discusses the necessity of developing a property system based on vertical ownership and spatial property concepts and explores its potential socio-economic contributions. In modern urban contexts, increasing demand for efficient use of underground and underwater spaces highlights the need for innovative legal frameworks. However, existing regulations fail to support the independent registration of such structures, leading to legal and technical challenges. Drawing from international practices, this study proposes revisiting the definitions of vertical and spatial ownership in the current system. The suggested system emphasizes the inclusion of independent property types in the land registry, enabling both the expansion of private property rights and the preservation of public order. A reform that allows independent registration for areas such as metros, viaducts, and sea fillings could significantly contribute to production and employment. Furthermore, the study underlines the necessity of developing standards for managing these structures to ensure environmental sustainability. In conclusion, the study establishes the need for a system that expands the scope of property rights, aligns the definitions of new immovable property types with international standards, and contributes to socio-economic development through land registry reform. It argues that such arrangements would yield positive outcomes not only in property relations but also in economic and environmental sustainability.

**Key Words:** Vertical ownership, spatial property, land registry reform, underground structures, Cadastre Law

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## Özet

Bu çalışmada, mevcut tapu sicili mevzuatının, viyadükler, metro istasyonları, deniz ve göl dolguları gibi yeni tip taşınmazların bağımsız mülkiyet ve tescil gereksinimlerini karşılama yeterliliği analiz edilmektedir. Araştırma, dikey mülkiyet ve uzaysal taşınmaz kavramları çerçevesinde bir mülkiyet sisteminin geliştirilmesinin gerekliliğini ve sağlayabileceği sosyal-ekonomik katkıları tartışmaktadır. Günümüz koşullarında hızla artan kentsel ihtiyaçlar, yeraltı ve su altı gibi alanların daha etkin bir şekilde kullanılmasını zorunlu hale getirmiştir. Ancak mevcut düzenlemeler, bu tür yapıların bağımsız olarak tescil edilmesine imkân tanımamakta ve uygulamada hukuki ve teknik sorunlar yaratmaktadır. Bu bağlamda, uluslararası uygulamalardan hareketle, mevcut sistemde dikey ve uzaysal mülkiyet tanımlarının yeniden ele alınması önerilmektedir. Önerilen sistem, tapu siciline bağımsız taşınmaz türlerinin eklenmesiyle hem özel mülkiyet haklarının genişletilmesine hem de kamu düzeninin korunmasına hizmet edebilir. Özellikle metro, viyadük ve deniz dolguları gibi alanların bağımsız tapu tesciline olanak tanıyan bir reform, üretim ve istihdamın artırılmasına katkı sağlayabilir. Ayrıca çevresel sürdürülebilirlik açısından bu tür yapıların yönetiminde standartların geliştirilmesi gerektiği vurgulanmaktadır. Sonuç olarak, tapu sicili reformuyla sosyal-ekonomik gelişime katkıda bulunacak, mülkiyet haklarının kapsamını genişletecek ve yeni tip taşınmazların tanımını uluslararası standartlara uygun şekilde yapılandırarak bir sistemin gerekliliği ortaya konulmaktadır. Çalışma, bu tür düzenlemelerin yalnızca mülkiyet ilişkilerinde değil, ekonomik ve çevresel sürdürülebilirlikte de olumlu etkiler yaratacağını savunmaktadır.

**Anahtar Kelimeler:** Dikey mülkiyet, uzaysal taşınmaz, tapu sicili reformu, yeraltı yapıları, Kadastro Kanunu



## **An Evaluation of the Approaches of Housing Producing and Selling Businesses Towards Tax and Legal Liabilities / Konut Üreten ve Satan İşletmelerin Vergi ve Yasal Yükümlülüklerine Karşı Yaklaşımlarına İlişkin Bir Değerlendirme**

**Emrullah Töremen<sup>1</sup>  
Erol Demir<sup>2</sup>**

### **Abstract**

Housing production is an economic activity that serves to meet the housing needs of individuals. The housing production process includes the processes of transforming land into plots, processes before starting construction, work and processes during construction, and the use and marketing of completed houses. Tax liabilities arise due to the profits obtained through the work and processes carried out during the specified process. Taxes, which have a very important place in the economic, social and cultural structure, can have a direct effect on the lifestyles of individuals. Businesses engaged in housing production naturally act with the motivation to produce houses by bearing less costs. In this respect, taxes collected from taxpayers operating in the sector should be collected according to their ability to pay. Therefore, the attitudes and behaviors of taxpayers are important in this process. The study aims to determine the perspectives of businesses engaged in housing production and selling manufactured houses towards tax liabilities and the issues affecting these perspectives. The scope of the study includes businesses operating in the construction and real estate sectors that carry out housing production work. In addition, tax and legal obligations that include the sales process of manufactured houses starting from the preparation phase of these businesses for housing production are included. In addition, the willingness of taxpayers to pay taxes, the tax perception of the sector, and the guidance of the relevant administrations in tax practices were questioned. In the study, it was determined that there were multiple and different types of tax liabilities in the housing production process, that the taxation applied in the construction and real estate sector included complex and discrete situations, and that the real value of the real estate was not reflected in the records. According to the results of the study, it is

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evaluated that the taxpayers' perspective on taxes will develop positively if taxes are reduced, made simple and affordable.

**Key Words:** Construction and real estate, housing production, tax and legal liabilities, taxpayer, tax perception

### Özet

Konut üretimi, bireylerin barınma ihtiyaçlarının karşılanmasına hizmet eden ekonomik bir faaliyettir. Konut üretim süreci; arazinin arsaya dönüştürülmesi işlemleri, inşaata başlamadan önceki işlemler, inşaat sırasındaki iş ve işlemler ile inşası biten konutların kullanımı ve pazarlanması aşamalarını kapsamaktadır. Belirtilen süreçte yapılan iş ve işlemler ile elde edilen kazançlar nedeniyle vergisel yükümlülükler doğmaktadır. Ekonomik, sosyal ve kültürel yapı içinde oldukça önemli bir yere sahip olan vergiler, bireylerin yaşam biçimleri üzerinde doğrudan etkili olabilmektedir. Konut üretimi faaliyetinde bulunan işletmeler haliyle daha az maliyete katlanarak konut üretme güdüsüyle hareket etmektedirler. Bu itibarla, sektörde faaliyette bulunan mükelleflerden alınan vergilerin, ödeme gücüne göre alınması gerekmektedir. Dolayısıyla, bu süreçte yükümlülerin vergiye karşı tutum ve davranışları önem taşımaktadır. Çalışmayla, konut üretiminde bulunan ve üretilen konutları satan işletmelerin vergisel yükümlülüklerine karşı olan bakışları ve bu bakışları etkileyen hususların belirlenmesi amaçlanmıştır. Çalışmanın kapsamında, inşaat ve gayrimenkul sektöründe faaliyette bulunan konut üretimi işlerini yürüten işletmeler yer almıştır. Ayrıca, bu işletmelerin konut üretimine hazırlık safhasından başlayarak üretilen konutların satış sürecini içine alan vergi ve yasal yükümlülüklerine yer verilmiştir. İlaveten, mükelleflerin vergi ödeme istekliliği, sektörün vergi algısı, vergi uygulamalarında ilgili idarelerin yol göstericiliği gibi hususlar sorgulanmıştır. Çalışmada, konut üretim sürecinde birden fazla ve türde vergisel yükümlülüklerin olduğu, inşaat ve gayrimenkul sektöründe uygulanan vergilendirmenin karmaşık ve ayrıksı durumların yer aldığı ve özellikle gayrimenkullerin gerçek değeriyle kayıtlara yansıtılmadığı tespit edilmiştir. Çalışma sonuçlarına göre, vergilerin azaltılması, basit ve ödenebilir hale getirilmesi durumunda mükelleflerin vergiye bakışları olumlu yönde gelişeceği değerlendirilmektedir.

**Anahtar Kelimeler:** İnşaat ve gayrimenkul, konut üretimi, vergi ve yasal yükümlülükler, mükellef, vergi algısı



## **Real Estate Sales Made by Public Administrations Based on User Determination and the Problem of Cancellation of The Transaction**

### ***/ Kamu İdarelerince Kullanıcı Tespitine Dayalı Olarak Yapılan Taşınmaz Satışları ve İşlemin İptali Sorunu***

**Sümevra Uslu <sup>1</sup>**  
**Aydın Güven Terzioğlu <sup>2</sup>**  
**Harun Tanrıvermiş <sup>3</sup>**

#### **Abstract**

It is known that real estates owned by public administration in Türkiye were occupied for agricultural activities, residential, commercial and industrial purposes in the past and that long-term actual use occurred. Following the inadequacy of preventing the occupation of public real estates, various legal regulations were made in order to bring the current situation into line with the law and sales transactions were carried out to those who actually use public real estates for agricultural, residential, commercial and industrial purposes. In particular, the sales transactions of the real estates whose users are determined by carrying out actual usage cadastral studies on the real estates whose ownership belongs to the treasury in accordance with the Annex-4 article of the Cadastral Law numbered 3402 and specified in the declarations section of the title deed, to the actual users are carried out in accordance with the Law numbered 6292 on Supporting the Development of Forest Villagers and Evaluation of Places Removed from Forest Boundaries on Behalf of the Treasury and Sale of Agricultural Lands Belonging to the Treasury. In addition, with the Law No. 4706 on the Assessment of Immovable Properties Belonging to the Treasury and Amendments to the Value Added Tax Law and the Temporary Article 1 of the Law No. 7143 on the Restructuring of Taxes and Other Certain Receivables and Amendments to Certain Laws, real estate registered under the names of public administrations in the land registry office is also sold to people who actually use the real estate.

It is known that the actual usage cadastral studies carried out in accordance with the Annex-4 article of Law No. 3402 are subject to litigation by filing an objection lawsuit against the user determination in the judicial authorities and that the cadastral studies do not always yield absolutely accurate results. In the case of immovable properties whose user has been incorrectly identified and sold to the user, the administrative and legal processes to be applied in the event that the real user emerges and claims a right to use the immovable property are in conflict with each other. In the established

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precedents of the Supreme Court, in the cases regarding the change of the declaration regarding the determination of the users of the real estates within the scope of Law No. 6292, the condition that the sale has not been made to the persons indicated in the declarations section is sought as a special case condition. In many of its decisions, it emphasizes that the lawsuit regarding the annotation cannot be heard unless the sale transaction, which is an administrative transaction, is cancelled. However, the administrative court accepts that the period for filing a lawsuit against the sale transaction, which is an administrative transaction, starts from the date of learning about the sale. The administrative courts, on the other hand, accept that the period for filing a lawsuit against a sale transaction, which is an administrative transaction, starts from the date of learning about the sale. According to the general rule, people who file an objection to the cadastral determination or a title deed cancellation lawsuit are deemed to have learned about the sale with this lawsuit, and thus, they often miss the period for filing a lawsuit while waiting for the outcome of this lawsuit, thus losing their rights. In addition, people are required to prove that a sale was made to someone else, even though they are users, in administrative court cancellation lawsuits. While proof in lawsuits regarding user determination is a matter that can be proven with any kind of evidence before the judicial court without being subject to formality, it is difficult for people to prove the issue of use since it is not possible to hear witnesses or local experts in administrative courts. Moreover, in transfers made pursuant to Law No. 6292, the administration does not have a discretionary power, and sales or transfer transactions are carried out in accordance with the mandatory provisions of the law upon the application of the right holders included in the finalized cadastral records. In other words, the administrations do not have a discretionary power in terms of whether to transfer to the right holders included in the finalized records as a result of the suspension. In this study, the problems caused by the decisions made in the cases regarding the objection to the cadastral determination filed in the period after the real estate sales made by the public administrations based on user determination were analyzed in terms of both legal regulations and court decisions and the practices of different administrations, and suggestions were developed for the solution of the problems observed in practice.

**Key Words:** Cadastral, public administrations, possession, user identification, real estate sales, judicial decisions and transparency in real estate markets.

### Özet

Türkiye’de kamu idarelerinin mülkiyetinde bulunan taşınmazların geçmiş dönemlerde tarımsal faaliyetler, konut, ticari ve endüstriyel amaçlı kullanımlar için işgal edildiği ve uzun süreli fiili kullanım durumunun oluştuğu bilinmektedir. Kamu taşınmazlarının işgalini önlemede yetersiz kalınması sonrasında mevcut durumun hukuka uygun hale getirilmesi amacıyla gerçekleştirilen çeşitli yasal düzenlemelere dayalı olarak kamu taşınmazlarının; tarımsal, yerleşim, ticari ve endüstriyel amaçlı olarak fiilen kullananlara satış işlemleri yapılmıştır. Özellikle 3402 sayılı Kadastro Kanunu’nun Ek-4 maddesi ile mülkiyeti hazineye ait taşınmazlarda fiili kullanım kadastro çalışmaları



yapılarak kullanıcıları tespit edilen ve tapunun beyanlar hanesinde belirtilen taşınmazların, fiili kullanıcılarına satış işlemleri 6292 sayılı Orman Köylülerinin Kalkınmalarının Desteklenmesi ve Hazine Adına Orman Sınırları Dışına Çıkarılan Yerlerin Değerlendirilmesi İle Hazineye Ait Tarım Arazilerinin Satışı Hakkında Kanun ile yapılmaktadır. Buna ilave olarak 4706 sayılı Hazineye Ait Taşınmaz Malların Değerlendirilmesi ve Katma Değer Vergisi Kanununda Değişiklik Yapılması Hakkında Kanun ve 7143 sayılı Vergi ve Diğer Bazı Alacakların Yeniden Yapılandırılması ile Bazı Kanunlarda Değişiklik Yapılmasına İlişkin Kanunun geçici 1. maddesi ile de tapuda kamu idareleri adına kayıtlı taşınmazların da taşınmazı fiilen kullanan kişilere satışı da yapılmaktadır.

3402 sayılı Kanunun Ek-4 maddesi uyarınca yapılan fiili kullanım kadastru çalışmalarının; yargı mercilerinde kullanıcı tespitine itiraz davası açılmak suretiyle dava konusu edildiği ve kadastro çalışmasının her zaman mutlak doğrulukta sonuçlar vermediği bilinmektedir. Kullanıcısı yanlış tespit edilen ve kullanıcılarına satış işlemi yapılan taşınmazlarda, gerçek kullanıcının ortaya çıkması ve hak iddia etmesi halinde, uygulanması gereken idari ve hukuki süreçler birbiri ile çelişen durumlar içermektedir. Yargıtay'ın yerleşik içtihatlarında; 6292 sayılı Kanun kapsamındaki taşınmazların kullanıcı tespitine ilişkin beyanın değiştirilmesine yönelik davalarda, özel bir dava şartı olarak beyanlar hanesinde gösterilen kişilere satışın gerçekleşmemiş olması koşulunu aramaktadır. Birçok kararında idari bir işlem olan satış işleminin iptal edilmedikçe şerhe yönelik davanın dinlenemeyeceği hususunu vurgulamaktadır. İdari yargı ise idari işlem olan satış işlemine karşı dava açma süresinin satışı öğrenme tarihinden başladığını kabul etmektedir. Genel kural uyarınca kadastro tespitine itiraz ya da tapu iptal davası açan kişiler, bu dava ile satışı öğrenmiş sayıldığından, çoğunlukla bu davanın sonucunu beklerken dava açma süresini kaçırarak hak kaybına uğramaktadır. Ayrıca kişiler idari yargıda iptal davalarında kendileri kullanıcı olmasına rağmen, bir başkasına satış yaptığını ispatlamaları da gerekmektedir. Kullanıcı tespitine ilişkin davalarda ispat; adli yargı önünde şekle tabi olmaksızın her türlü kanıtla ispatlanabilir bir hususken, idari yargıda tanık ya da mahalli bilirkişi dinlenmesinin mümkün olmaması nedeniyle kişilerin kullanım hususunu ispatlamalarını güçleştirmektedir. Üstelik 6292 Sayılı Kanun uyarınca yapılan devirlerde idarenin takdir yetkisi olmayıp, kesinleşen kadastro tutanaklarında yer alan hak sahiplerinin başvurusu üzerine kanunun emredici hükmü gereğince satış veya devir işlemleri yapılmaktadır. Bir başka deyişle idarelerin askı sonucu kesinleşen tutanaklarda yer alan hak sahiplerine devir edip etmeme noktasında bir takdir yetkisi bulunmamaktadır. Bu çalışmada kamu idarelerince kullanıcı tespitine dayalı yapılan taşınmaz satışlarından sonraki dönemde açılan kadastro tespitine itiraza ilişkin davalarda verilen kararların uygulamada neden olduğu sorunların analizi hem yasal düzenlemeler ve yargı kararları, hem de farklı idarelerin uygulamaları yönlerinden irdelenmiş ve uygulamada gözlenen sorunların çözümüne yönelik öneriler geliştirilmiştir.

**Anahtar Kelimeler:** Kadastro, kamu idareleri, zilyetlik, kullanıcı tespiti, taşınmaz satışı, yargı kararları ve gayrimenkul piyasalarında şeffaflık



## The Contractor's Liability Due to Defective Construction in Construction Contracts

### */ İnşaat Sözleşmelerinde Ayıplı Yapı Sebebiyle Yüklenicinin Sorumluluğu*

Şebnem Akipek Öcal<sup>1</sup>

#### **Abstract**

One of the most frequently concluded contracts in Turkish law is construction contracts. Although construction contracts are not specifically regulated under the Turkish Code of Obligations (TCO), they are classified as a work contract or a subtype of a work contract. One of the significant issues encountered in the construction sector is the concept of defective work. The contractor's liability arising from this situation and the limits of this liability, as well as its general principles and sources, are frequently discussed in both practice and doctrine, and determining the scope of this liability poses a challenge. Defect encompasses situations such as the structure not being in accordance with the contract, workmanship or material errors, technical deficiencies, or failure to perform the expected objective functions. In addition, the absence of the features promised by the contractor in the structure is also considered a defect. A defective building can cause a loss of value, difficulty in use, or serious damages for the owner. The contractor's liability is generally limited by a specific statute of limitations period from the delivery of the structure. Considering that our country is an earthquake-prone area, the importance of the structure not being defective becomes even more apparent. Therefore, the contractor's liability arising from defects must be a heavy responsibility and have a deterrent nature. Although the subject is primarily regulated by the Turkish Code of Obligations (TCO), the provisions of the Turkish Consumer Protection Law (TCPL) are applied in terms of construction contracts that qualify as consumer transactions. There are significant differences between these two regulations, and examining them through comparison will shed light on when and how each application should be implemented. Especially in construction contracts falling under the Turkish Code of Obligations (TCO), there is an obligation to inspect the structure and report any defects. However, in construction contracts falling under the Turkish Consumer Protection Law (TCPL), this obligation is absent, which is a significant difference in terms of the use of rights arising from defects and provides an advantage to consumers. In addition, the fact that the statute of limitations will not apply in cases of serious negligence or concealment of fraud, as stipulated by the TCPL, is also a

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first in our legal system. In this presentation, the subject will be addressed comparatively, and the contractor's liability due to defective construction will be evaluated within the framework of the Turkish Code of Obligations (TCO) and the Turkish Consumer Protection Law (TCPL).

**Key Words:** Construction contract, construction, defective construction, work contract, contractor's liability

### Özet

Türk hukukunda en sık akdedilen sözleşmelerden biri inşaat sözleşmeleridir. Türk Borçlar Kanunu (TBK) ile inşaat sözleşmeleri özel olarak düzenlenmemekle birlikte, eser sözleşmesi veya eser sözleşmesinin bir alt türü olarak nitelendirilmektedir. İnşaat sektöründe karşılaşılan önemli sorunlardan biri de ayıplı eser kavramıdır. Yüklenicinin bu durumdan kaynaklanan sorumluluğu ve bu sorumluluğun sınırları, genel ilkeleri ve kaynakları gerek uygulamada gerek doktrinde sıklıkla tartışılmakta ve sorumluluğun kapsamının belirlenmesi zorluk arz etmektedir. Ayıp, yapının sözleşmeye uygun olmaması, işçilik veya malzeme hataları, teknik eksiklikler veya beklenen objektif fonksiyonları yerine getirmemesi gibi durumları kapsar. Bunun yanında yüklenicinin vaat ettiği özelliklerin yapıda bulunmaması da yine ayıp kapsamında değerlendirilir. Ayıplı yapı, iş sahibi için değer kaybı, kullanım zorluğu veya ciddi zararlar doğurabilir. Yüklenicinin sorumluluğu, yapının tesliminden itibaren kural olarak belirli bir zamanaşımı süresiyle sınırlanmıştır. Ülkemizin bir deprem ülkesi olduğu düşünüldüğünde yapının ayıplı olmamasının önemi daha çok ortaya çıkmaktadır. Bu nedenle yüklenicinin ayıptan kaynaklanan sorumluluğunun ağır bir sorumluluk olması ve caydırıcı nitelik taşıması gerekmektedir. Konu her ne kadar esasen TBK ile düzenlenmiş olsa da, tüketici işlemi niteliği taşıyan inşaat sözleşmeleri bakımından Tüketicinin Korunması Hakkında Kanun (TKHK) hükümleri uygulanmaktadır. Bu iki düzenleme arasında önemli farklılıklar bulunmakta olup karşılaştırılarak incelenmesi, ne zaman ve nasıl hangi uygulamanın yapılacağına ışık tutacaktır. Özellikle TBK kapsamına giren inşaat sözleşmelerinde yapının incelenme ve ayıbın bildiri külfeti olduğu halde, TKHK kapsamına giren inşaat sözleşmelerinde bu külfetin bulunmaması ayıptan kaynaklanan hakların kullanımı bakımından önemli bir farklılık olup, tüketiciler için avantaj oluşturmaktadır. Bunun yanında yine TKHK ile getirilen düzenleme gereğince ayıbın ağır kusur veya hile gizlenmesi halinde zamanaşımı hükümlerinin uygulanmayacak olması da hukukumuz bakımından bir ilk olma özelliğine sahiptir. Bu tebliğde konu karşılaştırmalı olarak ele alınacak ve TBK ile TKHK kapsamında yüklenicinin ayıplı yapı sebebiyle sorumluluğu değerlendirilecektir.

**Anahtar Kelimeler:** İnşaat sözleşmesi, yapı, ayıplı yapı, eser sözleşmesi, yüklenicinin sorumluluğu



## **The Effects of Syrian Asylum Seekers on Urban Space: The Case of Şanlıurfa** */ Suriyeli Sığınmacıların Kentsel Mekân Üzerindeki Etkileri: Şanlıurfa Örneği*

**Mithat Arman Karasu<sup>1</sup>**

### **Abstract**

The migration of asylum seekers triggered by the civil war in Syria started in 2011 has become a social problem that causes serious social, cultural and economic problems in today's Türkiye. The number of asylum seekers in Türkiye, which was way below a hundred thousand in 2011, reached 3.6 million in 2018. Although there has not been a significant increase in return migration to this date, there has been a decrease in the number of Syrians in Türkiye for various reasons, and there are currently around 3 million asylum seekers.

The sudden and intense surge of Syrian asylum seekers causes serious problems especially in cities situated near the border. Syrian asylum seekers are mostly employed illegally, which causes both a decrease in wages and a loss of tax revenues. The tensions that sometimes turn into mass protests following the incidents experienced indicate the existence of serious opposition against Syrians in society. Approximately one third of all Syrian young people in Türkiye neither attend school nor work at the moment. How this young population will live in our cities in the future is a question yet to be answered. It is obvious that Syrians, who constitute a serious burden on public services in the cities they live in, have serious adaptation problems. It appears that Syrian asylum seekers are increasingly living in their own ghettos and are experiencing spatial separation.

The aim of the study is to find an answer to the question of how the migration of Syrian asylum seekers affects urban space. In this context, Şanlıurfa city was selected as an example. Both being situated on the border and the fact that a large number of Syrians have been living there for quite a long time make Şanlıurfa an important research center in this regard. The effects of Syrian migration in Şanlıurfa will be studied under the headings of socio-cultural, economic, administrative and security effects. The literature review method will be used in the study. Clearly, such analyses to be conducted on the urban scale on Syrian migration will produce constructive and informative results for the entire country.

**Key Words:** Migration, asylum seeker, refugee, integration problem, Şanlıurfa

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## Özet

2011 yılında Suriye’de başlayan iç savaşın tetiklediği sığınmacı göçü, günümüz Türkiye’sinde ciddi sosyal, kültürel ve ekonomik sorunlara neden olan toplumsal bir sorun haline gelmiştir. 2011 yılında sayıları yüz bini bulmayan sığınmacı sayısı 2018 yılında 3,6 milyona ulaşmıştır. Bugüne kadar belirgin bir geri dönüş göçü yaşanmamış olmakla birlikte, çeşitli nedenlerle Suriyelilerin sayısında bir azalma görülmekte olup, hâlihazırda sayıları 3 milyon civarındadır.

Aniden ve yoğun bir biçimde yaşanan Suriyeli sığınmacı göçü özellikle sınırda yer alan kentlerde ciddi sorunlara neden olmaktadır. Suriyeli sığınmacılar çoğunlukla kayıt dışı istihdam edilmekte, bu durum hem ücretlerin düşmesine hem de vergi gelirlerinde kayıplara neden olmaktadır. Kimi zaman yaşanan olaylar sonrasında kitlesel eylemlere dönüşen gerginlikler toplumda Suriyelilere karşı ciddi bir karşıtlığın varlığına işaret etmektedir. Suriyeli gençlerin yaklaşık üçte biri ne okula gitmekte ne de bir işte çalışmaktadır. Bu genç kitlenin gelecekte kentlerimizde nasıl bir yaşam süreceği henüz cevaplanmış bir soru değildir. Yaşadıkları kentlerde ciddi bir kamu hizmet yükü oluşturan Suriyelilerin uyum sorunu yaşadığı açıktır. Giderek kendi gettolarında yaşamaya başlayan Suriyeli sığınmacıların mekânsal bir ayrışma yaşadıkları görülmektedir.

Çalışmanın amacı; Suriyeli sığınmacı göçünün kentsel mekânda nasıl etkiler doğurduğu sorusunun cevabını bulmaktır. Bu kapsamda Şanlıurfa kenti örnek olarak seçilmiştir. Gerek sınırda yer alması gerekse çok sayıda Suriyelinin uzun zamandır yaşıyor olması Şanlıurfa’yı bu konuda önemli bir araştırma merkezi haline getirmektedir. Şanlıurfa’da Suriyeli göçünün neden olduğu etkiler; sosyo-kültürel, ekonomik, idari ve güvenlik başlıkları halinde incelenecektir. Çalışmada literatür taraması yöntemi kullanılacaktır. Kuşkusuz Suriyeli göçü konusunda kent ölçeğinde yapılacak olan bu tür analizler ülke geneli için yapıcı ve öğretici sonuçlar doğuracaktır.

**Anahtar Kelimeler:** Göç, sığınmacı, mülteci, uyum sorunu, Şanlıurfa



## **Municipalities' Policies Regarding Migrants / *Belediyelerin Göçmenlere Yönelik Politikaları\****

**Hicran Hamza Çelikyay<sup>1</sup>**

**Kübra Yüksel<sup>2</sup>**

### **Abstract**

Türkiye faced mass migration as a result of the Syrian Crisis that started in 2011. Over time, as a result of the migrants' settlement in cities from temporary accommodation centers and their various needs, their first point of contact has been local governments, mostly municipalities. Municipalities have played a leading role in services related to migrants in the past period. In this study, the policies of Metropolitan Municipalities towards migrants will be analyzed through their annual reports. Based on the data of the Directorate of Migration Management (DGMM), 7 metropolitan municipalities (Gaziantep, Istanbul, Izmir, Konya, Mersin, Samsun, and Van) from 7 geographical regions that were most affected by the Syrian mass migration were identified as the scope of the study. The activity reports of the Metropolitan Municipalities for the 2019-2023 period were analyzed. Since the concepts used by the municipalities vary, the concepts of migration, migrant, refugee, asylum-seeker, displaced and Syria were searched for an inclusive analysis. The study also includes the outputs of the Union of Municipalities of Türkiye and Union of Marmara Municipalities related reports. As a result, it was observed that in the activity reports of the municipalities affected by the mass migration influx after the Syrian crisis, concepts such as migrant, refugee, asylum seeker were used selectively instead of one another, no general explanation was provided on the legal basis of the services, except for Istanbul and Gaziantep, the municipalities did not establish a special unit, they intensively carried out their services in cooperation with international funds, international organizations, and NGOs, and their activities were mainly in the fields of education, vocational training, awareness raising, adaptation and social assistance.

**Key Words:** Municipalities' Migration Policies, Syrian Crisis, Metropolitan Municipalities, Activity Reports

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\* This study is based on the research carried out within the scope of the TUBITAK 1001 project numbered 323K385 and titled "Türkiye's Foreign Migration Policy Analysis in the Centennial Process and Policy Recommendations for Municipalities". We would like to thank TUBITAK for its support to the project.

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## Özet

Türkiye 2011 yılında başlayan Suriye Krizi sonucu kitlesel göç ile karşılaşmıştır. Zaman içerisinde göçmenlerin geçici barınma merkezlerinden kentlere yerleşmeleri ve çeşitli gereksinimleri neticesinde ilk temas noktaları yerel yönetimler, büyük oranda ise belediyeler olmuştur. Belediyeler, geçen süreçte göçmenlerle ilgili hizmetlerde başat role sahip olmuştur. Bu çalışmada, Büyükşehir Belediyelerinin (BŞB) göçmenlere yönelik politikaları faaliyet raporları üzerinden analiz edilecektir. Çalışma kapsamı olarak; Göç İdaresi Başkanlığı (GİB) verileri temel alınarak 7 coğrafi bölgeden Suriye kitlesel göçünden en çok etkilenen 7 Büyükşehir Belediyesi (Gaziantep, İstanbul, İzmir, Konya, Mersin, Samsun ve Van) belirlenmiştir. Büyükşehir Belediyelerinin 2019-2023 dönemi faaliyet raporları incelenmiştir. Belediyelerin kullandıkları kavramlar farklılık gösterdiğinden kapsayıcı bir inceleme için göç, göçmen, mülteci, sığınmacı, yerinden edinilmiş ve Suriye kavramları ile tarama gerçekleştirilmiştir. Çalışmada ayrıca Türkiye Belediyeler Birliği (TBB) ve Marmara Belediyeler Birliği (MBB) ilgili raporlarının çıktılarında da yer verilmiştir. Sonuç olarak, BŞB'lerin Suriye krizi sonrası kitlesel göç akınından etkilendiği faaliyet raporlarında göçmen, mülteci, sığınmacı gibi kavramların birinin yerine seçilerek kullanıldığı, hizmetlerin yasal dayanağı konusunda genel bir açıklama getirilmediği, İstanbul ve Gaziantep haricinde belediyelerin özel bir birim kurma yoluna gitmedikleri, yoğun olarak uluslararası fonlar, uluslararası örgütler, ve STK'lar ile işbirliği yaparak hizmetlerini yürüttükleri, çalışmaların yoğun olarak eğitim, meslek edindirme, farkındalık çalışmaları, uyum ve sosyal yardımlar konularında olduğu görülmüştür.

**Anahtar Kelimeler:** Belediyelerin Göç Politikaları, Suriye Krizi, Büyükşehir Belediyeleri, Faaliyet Raporları



**From Gecekondu to High-Rise: Transformations of Daily  
Life and Community Dynamics in Ankara's Araplar  
Neighbourhood**  
*/ Gecekonduyan Yüksek Katlıya: Ankara'nın Araplar Mahallesi'nde  
Günlük Hayat ve Topluluk Dinamiklerinin Dönüşümü*

Ufuk Poyraz <sup>1</sup>  
Cemre Şahinkaya <sup>2</sup>

**Abstract**

Daily life practices are often influenced by physical and environmental factors, evolving over time into essential components of urban living. While these practices are closely interwoven into everyday routines, large-scale interventions such as urban regeneration can significantly disrupt and reshape them, testing the resilience of communities in adapting to new environments. To assess the effects of such transformations, this study conducted detailed fieldwork observations through a number of in-depth interviews with residents of the Araplar Neighborhood in the Mamak district of Ankara. The study also compares the residents' daily practices during their time living in gecekondu (informal housing) with their experiences after relocating to apartment buildings as a result of urban regeneration. By evaluating the impacts of urban regeneration on neighbourhood relations, household economies, resilience, and routine activities, the study seeks to illuminate the broader social transformations underway.

**Key Words:** Daily life practices, urban regeneration, Ankara, urban resilience

**Özet**

Günlük yaşam pratikleri çoğunlukla fiziksel ve çevresel faktörlerden etkilenmekte ve zaman içinde kentsel yaşamın temel bileşenleri haline gelmektedir. Bu pratikler günlük rutinlerle iç içe geçmiş olsa dahi, kentsel dönüşüm gibi büyük ölçekli müdahaleler bu pratikleri önemli ölçüde sekteye uğratarak yeniden şekillendirmekte ve yerel halkın yeni ortamlara uyum sağlama konusundaki dayanıklılığını test etme hususunda önemli veriler sağlayabilmektedir. Sunulan çalışmada, söz konusu dönüşümlerin etkilerini değerlendirmek amacıyla Ankara'nın Mamak ilçesindeki Araplar Mahallesi sakinleriyle bir dizi derinlemesine görüşme yapılmış ve detaylı saha çalışması gözlemleri gerçekleştirilmiştir. Çalışma aynı zamanda mahalle sakinlerinin gecekonduya yaşadıkları döneme ait gündelik pratikleri ile kentsel dönüşümün bir sonucu olarak inşa edilen apartmanlara

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taşıdıktan sonraki gündelik deneyimlerini de karşılaştırmaktadır. Bu bağlamda çalışma, kentsel dönüşümün komşuluk ilişkileri, hanehalkı ekonomisi, dayanıklılık ve rutin faaliyetler üzerindeki etkilerini değerlendirmekte ve de yaşanmakta olan toplumsal dönüşümlere de ışık tutmaktadır

**Anahtar Kelimeler:** Günlük yaşam pratikleri, kentsel dönüşüm, Ankara, kentsel dayanıklılık



## **Value-Based Zoning Implementation Possibilities and Conditions for Success in Turkish Cities / Türkiye Kentlerinde Değer Esaslı İmar Uygulaması Olanakları ve Başarı Koşulları**

**Aydın Güven Terzioğlu <sup>1</sup>  
Harun Tanrıvermiş <sup>2</sup>**

### **Abstract**

Zoning plan implementation is described as a method of putting the zoning plan process into practice. Implementation of the zoning plan is the first stage of modern and healthy urbanisation, with the property structure carried out through various methods in several countries such as Germany, Australia, Indonesia, France, India, Spain, Israel, Japan, Taiwan and Turkey. Land readjustment and land arrangements are application tools employed by zoning plans in developed countries. In addition, they are used as land acquisition tools for infrastructure and superstructure investments in developing countries and many countries in the transition process. Although land readjustment benefits everyone in theory and practice, it is still worth reporting that the owners' satisfaction levels are low, as revealed in the results of the applications, especially in developing countries and Turkey. This might have also contributed to the reasons that made the authorised institutions reluctant to participate in planning studies. As of the implementation of the zoning plan, the location of parcels on the planning island would have changed, and development rights would have changed as well. This might have contributed to increased absolute land values, and property owners can benefit greatly from this. UN-Habitat reported 2018 that the public authority also acquiesces land for urban investments without compensation.

One of Turkey's most important implementation tools for urban land management is implementing Article 18 of the Zoning Law No.3194. In the historical development process, land readjustment is among the implementation methods inherited from the Ottoman Empire to the Republic of Turkey. The land readjustment, which was first introduced in the Turkish Legal System with the regulation of the Zoning Law No. 6785, which stipulated that municipalities have the authority to distribute parcels within municipal boundaries with a 25% discount, was later conceptualised with the partnership share ratio within the framework of international approaches. Despite the shortcomings of the zoning implementation method, which is constantly a subject of debate due to its surface area-based implementation, implementation difficulties in residential areas, implementation problems in regions with property problems, and dissatisfaction caused by the location and value changes of parcels formed after the implementation, it maintains its existence without alternatives as the most effective

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implementation tool of land management in Turkish cities. Many administrative, legal and academic studies have been conducted in Turkey on the necessity of value-based zoning practices instead of area-based ones. In particular, it is frequently emphasised that value-based zoning application methods should be used in development plans, urbanisation and city planning councils, integrated urban development and strategy and action plans (KENTGES), amendments to the Zoning Law No. 3194 and drafts and proposals prepared in different periods, research projects and many administrative and legal studies. Despite that, administrative, legal and academic studies conducted in Turkey in the last 50 years, no legal regulation has been made regarding the value-based zoning practices and institutional capacity development studies have been carried out in central and local administrations, and the regulation regarding the area principle continues with all its problems. This study examined the reasons behind the failure to switch to value-based zoning practices in Turkey. The need for value-based zoning practices has been emphasised by evaluating the administrative, legal and academic studies and judicial decisions conducted to date. The necessity of value-based implementation and the conditions for success were examined by assessing the literature review, judicial decisions and selected implementation examples, and the outlines of the roadmap for institutional capacity development and legal regulation by the legislator were discussed.

**Key Words:** Urban land, land ownership, land readjustment, land pooling, zoning policy, value-based zoning implementation, Turkish cities

### Özet

Modern ve sağlıklı kentleşmenin ilk aşaması olan imar planı yapılması sürecinin mülkiyet dokusu ile ilişkilendirilmesinin yöntemleri olarak nitelendirilen imar uygulamaları; Almanya, Avustralya, Endonezya, Fransa, Hindistan, İspanya, İsrail, Japonya, Tayvan ve Türkiye gibi ülkelerde çeşitli metotlarla yapılmaktadır (Souza vd. 2018). Gelişmiş ülkelerin uygulama aracı olarak algılanan ve görülen arazi düzenlemeleri, bu algının aksine gelişmekte olan ülkeler ile geçiş sürecindeki birçok ülkede hem arazi düzenleme, hem de altyapı ve üstyapı yatırımları için arazi edinimi aracı olarak ele alınmaktadır. Teori ve uygulamada arazi düzenlemeleri; herkesin fayda sağladığı bir yöntem olmakla birlikte özellikle gelişmekte olan ülkelerde ve Türkiye’de yapılan uygulamaların sonuçlarından maliklerin memnuniyet düzeylerinin zayıf olduğu ve planlama çalışmalarına sırf bu yüzden yetkili kurumların isteksiz olduğu dikkati çekmektedir. İmar uygulamalarının sonucunda planlama adasında parsellerin yer değişimi ve imar haklarında değişiklik olduğundan, mutlak arazi değerlerinde artış olmakta ve bundan maliklerin büyük ölçüde fayda sağlamaları mümkün görülmektedir. Ayrıca kamu otoritesi de zorunlu arazi edinimi için ödeme yapmadan kentsel yatırımlar için arazi edinimini gerçekleştirmektedir (UN-Habitat 2018). Türkiye’de kentsel arazi yönetiminin temel uygulama araçlarından biri 3194 sayılı İmar Kanunu’nun 18. madde uygulamasıdır (Köktürk ve Köktürk 2024). Tarihsel gelişim sürecinde arazi düzenlemesi, Osmanlı Devleti’nden Türkiye Cumhuriyetine miras kalan uygulama yöntemleri arasında



yer almaktadır (Tüdeş 2018). Türk Hukuk Sistemine ilk olarak 6785 sayılı İmar Kanunu ile belediye sınırı içindeki parselleri % 25 noksanı ile dağıtmaya belediyelerin yetkili olduğu şeklindeki düzenleme ile giriş yapan uygulama, daha sonra uluslararası yaklaşımlar çerçevesinde düzenleme ortaklık payı oranı ile kavramsallaştırılmıştır (Ergen 2006, Koçak 2011). Yüzölçümü esaslı uygulama olması nedeniyle sürekli tartışma konusu olan imar uygulama yönteminin eksik yönleri; meskûn sahalardaki uygulama zorlukları, mülkiyet problemi olan alanlardaki uygulama sorunları ile uygulama sonrası oluşan parsellerin yer ve değer değişiminin neden olduğu memnuniyetsizlik gibi yönlerine rağmen, Türkiye kentlerinde arazi yönetiminin alternatifsiz en etkili uygulama aracı olarak varlığını korumaktadır. Türkiye’de yüzölçümü esaslı imar uygulama yerine değer esaslı imar uygulamalarının yapılması gerektiğine ilişkin birçok idari, hukuki ve akademik çalışma yapılmıştır. Özellikle kalkınma planları, kentleşme ve şehircilik şuraları, bütünleşik kentsel gelişme ve stratejisi ve eylem planı (KENTGES), 3194 sayılı İmar Kanunu değişiklikleri ve farklı dönemlerde hazırlanan değişiklik taslak ve tasarıları, araştırma projeleri ile birçok idari ve hukuki çalışmalarda değer esaslı imar uygulama yöntemlerinin kullanılması gerektiği sıklıkla vurgulanmaktadır. Ayrıca Yıldız (1987), Yomralıoğlu (1997), Köktürk ve Köktürk (2005, 2009), Yıldız vd. (2008), Uygun (2011), Salalı (2014), Yalprı ve Ekiz (2017), Yılmaz (2016), Yılmaz ve Demir (2017), Çağdaş (2019), Koçoğlu (2019), Demirel (2019), Güngör (2019), Aksoy (2020), Salalı ve İnam (2022) gibi araştırmacılar tarafından imar uygulamalarının değer esaslı yapılmasına ilişkin değerlendirme yapıldığı görülmektedir. Bununla birlikte Türkiye’de son 50 yılda yapılan idari, hukuki ve akademik çalışmalara rağmen, imar uygulamalarının değer esaslı yapılması için yasal düzenleme ile merkezi ve yerel idarelerde kurumsal kapasite geliştirme çalışmaları yapılamaması nedeniyle yüzölçümü esasına ilişkin düzenleme yapılması, bütün sorunları ile birlikte devam etmektedir. Bu çalışmada Türkiye’de değer esaslı imar uygulamalarına geçiş yapılamamasının arka planında yer alan gerekçeler irdelenmiş ve günümüze kadar yapılan idari, hukuki ve akademik çalışmalar ile yargı kararları da değerlendirilerek değer esaslı imar uygulamalarına olan ihtiyaç vurgulanmıştır. Kaynak araştırması, yargı kararları ve seçilmiş uygulama örnekleri birlikte değerlendirilerek değer esaslı uygulamanın gerekliliği ve başarı koşulları irdelenmiş ve yasa koyucu tarafından kanuni düzenleme yapılması ile kurumsal kapasite geliştirilmesine ilişkin yol haritasının ana hatları tartışılmıştır.

**Anahtar Kelimeler:** Kentsel arazi, arazi mülkiyeti, imar uygulaması, arazi düzenlemesi, imar politikası, değer esaslı uygulama, Türk kentleri



## Is It Time to Buy in the İstanbul Housing Market? / İstanbul Konut Piyasası: Alma Zamanı Mı?

Tevfik Türel <sup>1</sup>

### Abstract

The İstanbul housing market, as the locomotive of the Turkish economy, is a critical focal point for both domestic and foreign investors. This presentation aims to evaluate investment opportunities and risks by analyzing İstanbul's housing dynamics from the perspective of the DiPasquale-Wheaton (DW) Model, covering the period from 2020 to 2030.

In recent years, İstanbul has stood out by accounting for approximately 17.9% of total housing sales in Turkey. However, economic fluctuations, high interest rates, and changing demand trends following the pandemic have led to significant market volatility. Particularly, first-hand housing sales have shown a downward trend due to increased financing costs, while urban transformation projects and demand for quality housing have shaped the new supply.

According to the DW Model, İstanbul's housing market is directly related to macro dynamics such as demographic changes, urbanization rate, and financial policies. A significant need for new housing is projected for the 2024-2032 period, supported by population growth, migration, young population's marriage trends, and tourism-oriented secondary housing needs. However, recent declines in real prices, the decreasing share of foreign buyers, and now the housing units being vacated by Syrian migrants are causing short-term market fluctuations.

The results emphasize that İstanbul's housing market is directly linked to economic stability, interest rate policies, and construction costs. While 2032 projections point to potential increases in rents and investment opportunities in strategic locations, factors such as the quality of existing stock and earthquake risk require careful evaluation.

This presentation offers a comprehensive outlook for investors and especially those in need, combining current market dynamics, future trends, and DW Model predictions to determine if it's the "Time to Buy".

**Key Words:** Real estate market, İstanbul housing market, DiPasquale-Wheaton model, İstanbul housing demand, İstanbul housing prices

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## Özet

İstanbul konut piyasası, Türkiye ekonomisinin lokomotifi olarak hem yerli hem de yabancı yatırımcılar için kritik bir odak noktasıdır. Bu sunum, 2020-2030 dönemini kapsayan analizlerle, İstanbul'un konut dinamiklerini DiPasquale-Wheaton (DW) Modeli perspektifinden değerlendirerek yatırım fırsatlarını ve riskleri ortaya koymayı amaçlamaktadır.

Son yıllarda İstanbul, Türkiye genelindeki konut satışlarının yaklaşık %17,9'unu gerçekleştirerek öne çıkmıştır. Ancak ekonomik dalgalanmalar, yüksek faiz oranları ve pandemi sonrası değişen talep eğilimleri, piyasada belirgin dalgalanmalara yol açmıştır. Özellikle birinci el konut satışları, finansman maliyetlerinin artması nedeniyle düşüş eğilimi göstermiş, buna karşılık kentsel dönüşüm projeleri ve nitelikli konut talebi yeni arzı şekillendirmiştir.

DW Modeli'ne göre, İstanbul'un konut piyasası demografik değişimler, kentleşme hızı ve finansal politikalar gibi makro dinamiklerle doğrudan ilişkilidir. 2024-2032 döneminde, önemli ölçüde yeni konut ihtiyacı öngörülmekte ve bu talep, nüfus artışı, göç, genç nüfusun evlenme eğilimi ve turizm odaklı ikincil konut ihtiyacıyla desteklenmektedir. Ancak reel fiyatlardaki düşüşler, yabancı alıcıların azalan payı ve şimdi de Suriyeli göçmenlerin boşaltmaya başladıkları konutlar piyasasının kısa vadede dalgalanmasına sebebiyet vermektedir.

Sonuçlar, İstanbul'un konut piyasasının ekonomik istikrar, faiz politikaları ve inşaat maliyetleriyle doğrudan bağlantılı olduğunu vurgulamaktadır. Özellikle 2032 projeksiyonları, kiralardaki artış potansiyeli ve stratejik lokasyonlardaki yatırım fırsatlarına işaret ederken, mevcut stokun kalitesi ve deprem riski gibi faktörler dikkatli bir değerlendirme gerektirmektedir.

Bu sunum, yatırımcılar ve özellikle ihtiyacı olanlar için "Alma Zamanı"nı belirlemek üzere piyasanın mevcut dinamiklerini, gelecek trendlerini ve DW Modeli'nin öngörülerini birleştirerek kapsamlı bir bakış sunmaktadır.

**Anahtar Kelimeler:** Gayrimenkul piyasası, İstanbul konut piyasası, DiPasquale-Wheaton modeli, İstanbul konut talebi, İstanbul konut fiyatları



## Utilizing Shopping-Malls for Post-Disaster Housing in Türkiye */ Türkiye’de Afet Sonrası Barınma için Alışveriş Merkezleri’nden Yararlanma*

Mehmet İzerdem <sup>1</sup>  
Mustafa Tombul <sup>2</sup>

### Abstract

With a large part of its territory located on active earthquake fault lines, Türkiye is significantly affected not only by earthquakes but also by other natural disasters. Türkiye is not merely an "earthquake-prone country" but is situated in a geography where various disasters frequently occur. In addition to earthquakes, climate change-induced natural disasters such as wildfires, floods, landslides, and droughts also impact densely populated areas. This study addresses the identification of temporary, solution-oriented sheltering areas during and after disasters. It discusses the inclusion in legislation of provisions for affected populations, who are compelled to leave their residences due to disaster and to find shelter in container housing or temporary living spaces in publicly accessible areas, such as common areas or the open parking lots of shopping malls (if available). This approach could help mitigate disaster-induced displacement. Due to various reasons, social responsibility budgets in shopping mall investments have been reduced. The proposed solution would provide a significant contribution not only in terms of social responsibility but also in fostering public solidarity and sustainable disaster management. Following the "February 6 Kahramanmaraş Earthquake", the conversion of the open parking area of "Kahramanmaraş Piazza Shopping Mall" into a container city greatly benefited disaster victims and response teams. Building on this experience, the study recommends that the new Shopping Mall Regulations include provisions for the temporary use of common areas, open parking spaces, and shelters in shopping malls in disaster situations.

**Key Words:** Natural disasters, shopping mall (SM), container sheltering, shopping mall regulations, public area

### Özet

Topraklarının büyük çoğunluğu aktif ve farklı deprem kuşakları üzerinde olan Türkiye, sadece depremlerden değil diğer afetlerden de oldukça fazla etkilenmektedir.

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Sadece “bir deprem ülkesi” değil, diğer afetlerin de sıkça görüldüğü bir coğrafya konumundadır. İklim değişikliğine bağlı, doğal orman yangınları, seller, heyelanlar ve kuraklık gibi etkisi, nüfusun yoğun olduğu yerleşim bölgelerini etkileyen tüm bu afetler ile mücadele kapsamında, afet sırası ve sonrasında geçici çözüm odaklı barınma alanlarının belirlenmesi konusunda yapılan bu çalışmada, afetlerden etkilenip, yerleştiği bulunduğu, yöreyi, bölgeyi, konutu terketmek ve geçici süre ile başka bir alanda barınmasını sağlamak zorunda kalan nüfusun, bu geçici barınmayı, kamusal alan sıfatında olan Alışveriş Merkezleri (AVM)’nin ortak alanlarında ve var ise açık otopark alanlarından temin edilecek konteynır kent / geçici oturma alanlarından sağlanmasının mevzuata eklenmesi ve afet sebebiyle göçün bir derece engellenmeye çalışılması tartışılmıştır. AVM yatırımlarında, çeşitli sebeplerden sosyal sorumluluk bütçeleri kısılmış durumdadır. Yalnızca sosyal sorumluluk açısından değil, kamusal dayanışma ve sürdürülebilir afet yönetimi için de önemli bir katkı olacaktır. 6 Şubat Kahramanmaraş Depremi ile beraber, “Kahramanmaraş Piazza AVM” açık otoparkının konteynır kente çevrilmesinin depremzedelere ve müdahale ekiplerine büyük fayda sağlamasından yola çıkarak, kamunun afet durumlarında, AVM’lerin ortak alan, açık otopark, sığınak gibi alanlarından geçici faydalanmasının sağlanması adına, yeni AVM Yönetmeliğine eklenmesi önerilmektedir.

**Anahtar Kelimeler:** Doğal afetler, alışveriş merkezi (AVM), konteyner barınma, alışveriş merkezi düzenlemeleri, kamusal alan



## Process Management of Mortgaged Properties Damaged in Earthquake

### */ Depremde Hasar Gören İpotekli Taşınmazların Süreç Yönetimi*

Berna Görgülü<sup>1</sup>  
Yeşim Tanrıvermiş<sup>2</sup>

#### Abstract

The housing market in Türkiye is heavily dependent on mortgage loans, which contribute to supply-demand growth and employment in the real estate sector. However, in a country like Türkiye, prone to earthquakes, high mortgage loan usage also brings financial risks. Natural disasters such as earthquakes increase the likelihood of property owners facing repayment difficulties, thus exerting pressure on the economy. A study was conducted in Adıyaman, one of the most affected provinces during the February 6, 2023 Kahramanmaraş Earthquakes, focusing on property owners who had acquired real estate with loans in 2022. The study aimed to examine support for mortgage payments, changes in repayment capabilities, insurance purchasing behavior, the effectiveness of insurance after the earthquake, and living conditions. A sample of 68 individuals was selected from a population of 1.149, with a margin of error of 0,10. The survey gathered responses from 53 participants, with 15 refusing to participate. Descriptive statistics were used for data analysis. The results showed that 70,3% of participants did not experience repayment difficulties, suggesting that lenders preferred individuals who could maintain their payments despite the earthquake. Additionally, 48.5% of participants thought repaying loans for damaged properties was futile, which reduced their willingness to pay. Only 20% had claimed compensation from optional property insurance, which may be linked to a clause in mortgage contracts. These findings suggest the need for better risk evaluation by lenders, more transparent insurance conditions, and improved consumer awareness of financial risks. The research is important for understanding the financial impact of natural disasters on individuals and analyzing insurance awareness and payment behavior among mortgage holders.

**Key Words:** Earthquake, residential mortgage lending, compulsory earthquake insurance, home insurance

#### Özet

Türkiye’de konut piyasası, ipotekli konut kredisi ile edinime büyük ölçüde bağlıdır. Arz-talep artışını sağlamanın yanında gayrimenkul sektörü ve diğer bağlantılı sektörlerde istihdamı da artırıcı bir role sahip olmasına rağmen deprem riski ile karşı karşıya olan Türkiye’de yüksek kredi kullanım oranları finansal riskleri de beraberinde getirmektedir. Deprem ve diğer doğal afetlerin yaşanması borçlu olan maliklerin ödeme zorluğu ile

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karşılaşma riskinin oluşmasına neden olmakta, bu durum da ekonomi üzerinde baskı oluşturmaktadır. 6 Şubat 2023 tarihinde gerçekleşen Kahramanmaraş Depremleri'nde en çok hasar alan illerden biri olan Adıyaman İli'nde deprem öncesinde 2022 yılında kredi kullanılarak edinilmiş taşınmazların maliklerini kapsayan bir araştırma gerçekleştirilmiştir. Araştırmanın temel amaçları; maliklerin kredi dönem taksitleri için aldıkları destekleri, ödeme kabiliyetlerindeki ve isteklerindeki değişimi, konut kredisiyle bağlantılı sigortaları yaptırma oranlarını, deprem sonrasında bu sigorta/ların etkinliğini ve ikamet koşullarını incelemektir. 1.149 kişinin evreni oluşturduğu araştırmada, evrenden rastgele örnekleme yöntemi ile  $d=0,10$  olmak üzere örnekleme 68 kişi olarak belirlenmiştir. Deprem sonrasında maliklerin deneyimledikleri süreci anlamaya yönelik saha araştırması kapsamında 53 kişiden yanıt alınmış olup, 15 kişi ankete katılmak istemediğini beyan etmiştir. Elde edilen nitel verilerin çözümlenmesi için betimsel istatistik yöntemi kullanılmıştır. Araştırmada; ödemelerde zorluk yaşamayan bireylerin örneklemin %70,3'ünü oluşturduğu ve bu durum da maliklerin depreme rağmen gelir kaybına uğramadıkları, kredi veren kuruluşlar tarafından risklerin (deprem gibi doğal afet riski, vb.) gerçekleşmesi durumunda dahi ödeme gücünü kaybetmeyecek bireylerin tercih edildiği ve kredi dönem taksitlerinin zamanla nominal ve reel değerinin azaldığı ortaya çıkmaktadır. Bir başka bulgu, örneklemin %48,5'i hasar gören ya da yıkılan ipotekli konut için borç ödemenin anlamsız olduğunu düşünmekte bu durum da maliklerin ödeme isteğinin azalmasına neden olmaktadır. Araştırmanın bir diğer önemli bulgusu ise; konut kredisi kullanım aşamasında zorunlu deprem sigortası haricinde yapılan konut sigortasından (ihtiyari) tazminat alma oranının %20 ile sınırlı kalmış olması kredi sözleşmelerinde yer alan "dain-i mürtehin" sıfatının neden olabileceğini düşündürmektedir. Bu bulgular, kredi veren kuruluşların tüketiciyi seçim aşamasında risklerin detaylı değerlendirildiğini ortaya çıkarmakla birlikte sigorta koşullarının daha şeffaf hale getirilmesi, sigorta sisteminin güçlendirilmesi ve kredi kullanıcılarının finansal risklere karşı daha iyi bilgilendirilmesi gerektiğini vurgulamaktadır. Bu açıdan araştırma, ipotekli konut maliklerinin deprem gibi risklerle karşılaşmaları durumunda onları bekleyen koşulları özetleyen bir çerçeve sunması sebebiyle doğal afetlerin finansal sonuçlarının bireyler üzerindeki etkilerini anlamak, sigorta bilinci ve bireylerin ödeme davranışlarını analiz etmek açısından önem arz etmektedir.

**Anahtar Kelimeler:** Deprem, ipotekli konut kredisi, zorunlu deprem sigortası, konut sigortası



## **Social Resilience in the Context of Sustainable Spaces: The Case of the Ataevler Neighborhood in Bursa / *Sürdürülebilir Mekanlar Bağlamında Toplumsal Dirençlilik ve Bursa Ataevler Mahallesi Örneği***

**Gülnaz Şengül Güneş<sup>1</sup>  
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Yeşim Tanrıvermiş<sup>3</sup>**

### **Abstract**

Urban transformation processes are complex phenomena that not only alter the physical structure of cities but also influence social and political dynamics. Social resilience is a key concept that examines how communities respond to change and the level of their participation in these processes. The Ataevler neighborhood in Bursa presents a noteworthy example of how projects framed within sustainable urban transformation shape the social resilience of local communities. This research aims to explore the resilience capacities of communities in urban transformation processes and the role of this resilience in the creation of sustainable spaces, using the Bursa Ataevler neighborhood as a case study. In this context, the study focuses on evaluating the resilience exhibited by local residents toward urban transformation projects and the involvement of stakeholders in the transformation process. The research employs qualitative methods, utilizing data from primary sources such as the residents involved in the transformation process, as well as secondary sources like administrative records and reports related to the region and urban transformation. The findings indicate that the urban transformation process in Ataevler demonstrates a negative correlation between social resilience and sustainable spaces. The importance of participatory processes, which is frequently emphasized in the social resilience literature, is clearly observed in the Ataevler case. Sustainable spaces are not built solely through physical structures but are also shaped by the social resilience of the local community involved in these processes. A transparent, inclusive planning approach that encourages community participation is crucial for the sustainability and success of transformation projects. Social resilience is at the core of this process, showing how fostering public participation can help mitigate resistance and contribute more effectively to sustainability goals.

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The reduction in social resilience has been observed to accelerate the development process.

**Key Words:** Sustainable spaces, social resilience, urban transformation, neighborhood culture

### Özet

Kentsel dönüşüm süreçleri hem şehirlerin fiziksel yapısını değiştiren hem de sosyal ve siyasi dinamikleri etkileyen karmaşık süreçlerdir. Toplumsal dirençlilik, bu süreçlerde özellikle toplumların değişime karşı verdiği tepkileri ve katılım seviyelerini inceleyen önemli bir kavramdır. Bursa'daki Ataevler Mahallesi, sürdürülebilir kentsel dönüşüm çerçevesinde ele alınan projelerin, yerel toplulukların toplumsal dirençliliği nasıl şekillendirdiğini anlamak açısından dikkat çekici bir örnek sunmaktadır. Araştırma kapsamında kentsel dönüşüm süreçlerinde toplulukların dirençlilik kapasiteleri ve bu direncin sürdürülebilir mekanların oluşturulmasındaki rolü Bursa Ataevler Mahallesi örneği üzerinden incelenmesi amaçlanmaktadır. Bu bağlamda, yerel halkın kentsel dönüşüm projelerine yönelik gösterdiği dirençliliğin ve süreç içerisindeki paydaşların dönüşüme katılım sağlama durumlarının değerlendirilmesi hedeflenmiştir. Araştırmada yöntem olarak nitel araştırma tekniklerinden faydalanılmış olup; araştırma materyalini birincil olarak dönüşüm sürecinde yer alan mahalle sakinleri verileri ve ikincil olarak ise bölgedeki ve kentsel dönüşüm alanındaki idari kayıt ve raporlardan elde edilen veriler oluşturmaktadır. Sonuç olarak, Ataevler Mahallesi'nde yürütülen kentsel dönüşüm süreci, toplumsal dirençlilik ve sürdürülebilir mekanlar arasındaki negatif yönlü ilişkinin somut bir örneğini sunmaktadır. Toplumsal dirençlilik literatüründe sıklıkla vurgulanan katılımcı süreçlerin önemi, Ataevler örneğinde açık bir şekilde görülmüştür. Sürdürülebilir mekanlar, yalnızca fiziksel yapılarla değil, bu süreçlerde yerel halkın dirençliliği ile de inşa edilmektedir. Toplumların katılımını teşvik eden, şeffaf ve kapsayıcı bir planlama yaklaşımı, dönüşüm projelerinin sürdürülebilirliği ve başarısı açısından hayati önem taşımaktadır. Toplumsal dirençlilik, bu sürecin merkezinde yer alarak, halkın projeye katılımının sağlanmasının, olası dirençleri azaltarak sürdürülebilirlik hedeflerine daha etkili şekilde ulaşılmasına nasıl katkıda bulunduğunu göstermektedir. Toplumsal dirençliliğin azalması ile gelişim sürecinin hızlandığı görülmektedir.

**Anahtar Kelimeler:** Sürdürülebilir mekanlar, toplumsal dirençlilik, kentsel dönüşüm, mahalle kültürü



## **Examination of The Legal Framework for The Evaluation of Expenditure Contribution Fees Within the Scope of The Subscription Agreement / Harcamalara Katılma Paylarının Abonelik Sözleşmesi Kapsamında Değerlendirilmesinin Hukuksal Çerçevede İncelenmesi**

**Sıla Nazile Tunçbilek<sup>1</sup>  
Nuri Semih Öz<sup>2</sup>**

### **Abstract**

Infrastructure services such as water, sewerage or road construction provided by local governments are financed by taxes, fees and contribution to expenditures under the Municipal Revenues Law No. 2464. Expenditure participation shares, which are one of the own revenues of the municipality and based on the principle that the real estate owners who benefit from the service participate in the expenditures in proportion to a certain share, are frequently collected in practice within the scope of technical infrastructure fees or subscription agreements. It is observed that municipalities make wrong practices in terms of charging fees for the services they provide by collecting contribution to expenditures. There are reasons for this, such as insufficient penetration of legal regulations or not having enough experienced staff. A similar situation is observed in the decisions of administrative courts and tax courts on disputes.

In this study, it is aimed to examine the expenditure participation shares, which are among the municipal own revenues and collected depending on real estates, and the tax-like revenues and subscription fees collected by municipalities and their affiliated organizations within the scope of subscription agreements within the legal framework. By integrating the information on contribution to expenditures, technical infrastructure fees and subscription agreements with the analysis of judicial decisions, the problems identified through judicial decisions regarding the implementation of legal regulations will be examined and solutions will be developed for the problems identified.

**Key Words:** Municipal revenues, share of participation in spending, tax value, subscription contract, participation shares in expenditures, technical infrastructure fee, participation fee

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## Özet

Yerel yönetimler tarafından gerçekleştirilen su, kanalizasyon ya da yol yapımı gibi altyapı hizmetlerinin finansmanı 2464 sayılı Belediye Gelirleri Kanunu kapsamındaki vergi, harç ve harcamalara katılma payları ile sağlanmaktadır. Belediyenin öz gelirlerinden olan ve hizmetten yararlanan gayrimenkul sahiplerinin belirli bir pay oranında, gerçekleştirilen harcamalara katılması prensibine dayanan harcamalara katılma paylarının uygulamada sıklıkla teknik altyapı bedeli veya abonelik sözleşmeleri kapsamında tahsil edildiği görülmektedir. Belediyelerin harcamalara katılma payı alma ile sundukları hizmetlerden ücret alma konusundaki yanlış uygulamalar yaptıkları görülmektedir. Bunun yasal düzenlemelere yeterince nüfuz edememe ya da yeterli birikimli personele sahip olmama gibi nedenleri bulunmaktadır. Benzer bir durum, idare mahkemeleri ile vergi mahkemelerinin ihtilaflar üzerine verdikleri kararlarda da görülmektedir.

Bu çalışmada gayrimenkullere bağlı olarak tahsil edilen ve belediye öz gelirlerinden olan harcamalara katılma payları ile abonelik sözleşmeleri kapsamında belediyeler ve bağlı kuruluşlarınca tahsil edilen vergi benzeri gelir ve abonelik ücretlerinin hukuksal çerçevede incelenmesi amaçlanmaktadır. Harcamalara katılma payları, teknik altyapı bedeli ve abonelik sözleşmelerine ilişkin bilgiler yargı kararları incelemesi ile bütünleştirilerek yasal düzenlemelerin uygulanmasına ilişkin yargı kararları üzerinden tespit edilen sorunların incelemeleri yapılarak tespit edilen sorunlara ilişkin çözüm önerileri geliştirilecektir.

**Anahtar Kelimeler:** Belediye gelirleri, harcamalara katılma payları, vergi değeri, abonelik sözleşmesi, teknik altyapı bedeli, katılım payı



## The Use of Artificial Intelligence in Real Estate Insurance Processes: Compulsory Disaster Insurance */ Gayrimenkul Sigortalama Süreçlerinde Yapay Zekâ Kullanımı: Zorunlu Afet Sigortası*

Kürşat Köz<sup>1</sup>  
Ezgi Avci<sup>2</sup>

### Abstract

This paper provides a detailed examination of artificial intelligence (AI) technologies in the context of compulsory disaster insurance. Compulsory disaster insurance is vital for ensuring societal and economic stability in the aftermath of natural disasters. However, participation rates remain below expectations, necessitating innovative solutions to promote adoption. AI-driven approaches hold significant potential to offer transformative solutions at every stage of the insurance process. The study focuses on critical components of the insurance process, including awareness building, policy creation, renewal, and claims management, to evaluate the contributions of AI to the sector. The use of intelligent chatbots and digital assistants for information dissemination and raising awareness is presented as an effective strategy for broadening insurance literacy. Additionally, the application of data analytics for regional and demographic targeting is proposed to enhance the efficacy of awareness campaigns. In policy creation and renewal processes, automated risk assessment and autonomous approval mechanisms play a crucial role in accelerating procedures and enhancing reliability. For claims management and settlement, innovations such as image processing-based initial assessment and automated reporting and tracking mechanisms deliver a more transparent and efficient experience for both policyholders and insurance companies. In conclusion, the utilization of AI technologies in compulsory disaster insurance processes has the potential to enhance public welfare, reduce economic losses, and provide a competitive advantage in the sector. This paper highlights the potential of AI-based applications in the sector and offers a strategic roadmap for insurance stakeholders and decision-makers.

**Key Words:** Compulsory disaster insurance, artificial intelligence, insurance technologies, risk analysis, claims management

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## Özet

Bu tebliğde, zorunlu afet sigortası kapsamında yapay zekâ (YZ) teknolojilerinin kullanımı detaylı olarak incelenmektedir. Zorunlu afet sigortası, özellikle türbülanslı doğal afet ortamında toplumsal ve ekonomik istikrarın sağlanması açısından kritik bir öneme sahiptir. Ancak, katılım oranları hala arzu edilen seviyede değildir ve bu durum sigortalılığın yaygınlaşması için yeni çözüm yollarının aranmasını gerektirmektedir. Bu bağlamda, yapay zekâ tabanlı yaklaşımlar sigorta süreçlerinin her aşamasında yenilikçi çözümler sunma potansiyeline sahiptir. Bu çalışma, sigortalama süreçlerinin bilgilendirme, poliçe oluşturma, yenileme ve hasar yönetimi gibi temel bacalarına odaklanarak, yapay zekânın sektöre olan katkılarını değerlendirmektedir. Bilgilendirme ve farkındalık artırma alanlarında akıllı chatbotlar ve dijital asistanların kullanımı, sigorta bilincinin yaygınlaşması için etkili bir strateji olarak sunulmuştur. Bunun yanı sıra, veri analitiği teknikleri ile bölgesel ve demografik hedefleme yapılarak bilgilendirme kampanyalarının daha etkili hale getirilmesi önerilmektedir. Poliçe oluşturma ve yenileme süreçlerinde otomatik risk değerlendirme ve otonom onay mekanizmaları, süreçlerin hızlandırılması ve güvenilirliğin artırılması için kritik bir rol oynamaktadır. Hasar yönetimi ve tazminat süreçlerinde ise görüntü işleme tabanlı ilk değerlendirme, otomatik raporlama ve takip mekanizmaları gibi yenilikler, hem sigortalılar hem de sigorta şirketleri için daha şeffaf ve verimli bir deneyim sunmaktadır. Sonuç olarak, zorunlu afet sigortası süreçlerinde yapay zekâ teknolojilerinin kullanımı, toplumsal faydayı artırma, ekonomik kayıpları azaltma ve sektörde rekabet avantajı sağlama potansiyeline sahiptir. Bu tebliğ, yapay zekâ temelli uygulamaların sektördeki potansiyelini ortaya koyarak, sigorta paydaşları ve karar vericiler için stratejik bir yol haritası sunmaktadır.

**Anahtar Kelimeler:** Zorunlu afet sigortası, yapay zekâ, sigorta teknolojileri, risk analizi, hasar yönetimi



## Exploring Real Estate Market Dynamics with Generative AI and Sentiment Analysis

### */ Üretken Yapay Zeka ve Duygu Analizi ile Gayrimenkul Pazar Dinamiklerinin Keşfi*

Ezgi Avcı <sup>1</sup>

#### **Abstract**

This study aims to reveal the role of GenAI-based sentiment analysis applications in understanding market dynamics within the real estate sector. Real estate sales and rental processes play a crucial role in understanding customer preferences, perceptions, and emotional responses. GenAI-based sentiment analysis enables the interpretation of emotional states by analyzing data obtained from social media, online reviews, and other digital sources.

The scope of the study includes a review of existing literature on the use of GenAI-based sentiment analysis technologies in the real estate market and examines how these technologies can be integrated with digital marketing strategies. Furthermore, the processing of data obtained from various sources and the impact of these outputs on real estate investment and market analysis processes are discussed.

The findings indicate that GenAI-based sentiment analysis technologies offer significant potential in the real estate sector, especially in target audience identification, forecasting market trends, and developing personalized marketing strategies. These technologies provide a substantial competitive advantage for real estate investors and marketers while accelerating digital transformation in the sector.

In conclusion, understanding the effects of GenAI-based sentiment analysis applications in the real estate sector is considered an important step both academically and industrially. This study provides insights into the integration of GenAI-based sentiment analysis technologies into the real estate sector and the benefits that can be derived from their use.

**Key Words:** Generative artificial intelligence, sentiment analysis, real estate, digital marketing, market dynamics

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## Özet

Bu çalışma, gayrimenkul sektöründe üretken yapay zeka tabanlı duygu analizi uygulamalarının pazar dinamiklerini anlamadaki rolünü ortaya koymayı amaçlamaktadır. Gayrimenkul satış ve kiralama süreçleri, müşteri tercihlerini, algılarını ve duygusal tepkilerini anlama noktasında büyük öneme sahiptir. Üretken yapay zeka tabanlı duygu analizi, sosyal medya, online incelemeler ve diğer dijital veri kaynaklarından elde edilen verilerin analizini sağlayarak müşterilerin duygusal durumlarının çözülmesine imkan tanımaktadır.

Çalışmanın kapsamında, duygu analizi teknolojilerinin gayrimenkul pazarında kullanımına ilişkin mevcut literatür incelenmiş ve bu teknolojilerin dijital pazarlama stratejileri ile nasıl entegre edilebileceği ele alınmıştır. Ayrıca, farklı veri kaynaklarından elde edilen verilerin işlenmesi ve bu verilerden elde edilen çıktıların gayrimenkul yatırımı ve pazar analizi süreçlerine etkisi tartışılmıştır.

Elde edilen bulgular, üretken yapay zeka tabanlı duygu analizi teknolojilerinin gayrimenkul sektöründe özellikle hedef kitle belirleme, pazar trendlerini öngörme ve kişiselleştirilmiş pazarlama stratejileri geliştirme konularında büyük bir potansiyel sunduğunu ortaya koymaktadır. Bu teknolojiler, gayrimenkul yatırımcıları ve pazarlamacıları için önemli bir rekabet avantajı sağlarken, aynı zamanda sektördeki dijital dönüşümü hızlandırmaktadır.

Sonuç olarak, üretken yapay zeka tabanlı duygu analizi uygulamalarının gayrimenkul sektöründeki etkilerini anlamak, hem akademik hem de sektörel açıdan önemli bir adım olarak değerlendirilmelidir. Bu çalışma, üretken yapay zeka tabanlı duygu analizi teknolojilerinin gayrimenkul sektörüne entegrasyonu ve bu teknolojilerin kullanımından elde edilebilecek faydalar konusunda kapsamlı bir bakış sunmaktadır.

**Anahtar Kelimeler:** Üretken yapay zeka, duygu analizi, gayrimenkul, dijital pazarlama, pazar dinamikleri



## Reducing the Climate Change Risks on the Real Estate for Healthier, Energy Efficiency and Economic Future

Eman Ahed Mahmoud Alwahsh<sup>1</sup>  
Amjad Khabaz<sup>2</sup>

### Abstract

Global warming and population growth are the main factors of increasing the demands for energy consumption in the real estates. It is widely acknowledge fact that Türkiye prioritizes energy usage for buildings ventilating and heating as to rising up the standard of living. It is estimated that in Türkiye about more than half of the total energy consumption in the real estate goes to the air conditioning and for heating them, so energy efficiency measures are becoming more and more important all over the world especially for Türkiye. Real estate with air filtration; well thermal insulated; efficient and high-performing HVAC, water, and energy systems; and resilient climate-adapted infrastructure will simply be more desirable. This paper aims to improve the efficiency of concrete walls against heat transfer in order to relieve the stress on using the manufactured resources (manufactured insulation materials) on the exterior wall construction by developing the conventional wall, regarding the thermal conductivity, in order to achieve a green wall that will be sustainable functional and applicable to reduce the using of energy in summer and winter, that will be a self-stand concrete block against heat transfer. Through having actual values of the heat transfer measurements, on both the external and internal walls, for a number of buildings in the region and prepare a suitable solution to enhance the current exterior wall, so that allow the real estate to significantly reduce its electricity bills, which will alleviate pressure on the cities and budget by decreasing the need to use the AC throughout the building life time.

**Key Words:** Real estate risk, thermal transfer, thermal resistance, sustainability, conventional concrete wall

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## **Evaluation of Legal Regulations on the Climate Crisis with Respect to Commercial Real Estate**

### ***/ İklim Krizine İlişkin Yasal Düzenlemelerin Ticari Gayrimenkuller Boyutuyla Değerlendirilmesi***

**Pınar Sezgin <sup>1</sup>**

**Erdem Ercan <sup>2</sup>**

#### **Abstract**

Climate change, population growth and the scarcity of energy resources have brought about the need for clean, renewable and low-cost energy. This need is also the focal point of sustainability discussions. In the face of changing climates and the rapid depletion of resources, in order to ensure the continuity of life and the environment and to protect against the harmful effects of the climate crisis, it is seen as a necessity to create and use alternative renewable energy opportunities in addition to general environmental management, and to realize the construction and design of buildings in an environmentally friendly manner within this framework.

The first international text for the prevention of the climate crisis in the world, the “UN Framework Convention on Climate Change” was opened for signature in 1992, 197 countries became parties to the convention, and Türkiye joined this convention in 2004. Within the scope of the work carried out by the United Nations, the “Paris Agreement” was signed by 194 countries and the EU in 2015. The Paris Agreement contributed to the prevention of the climate crisis by taking into account the principle of “common but differentiated responsibilities and relative capabilities” of the parties. The Agreement aims to keep the increase in global temperature caused by greenhouse gas emissions to an ideal figure of 1.5 degrees Celsius above the pre-industrialization period and not exceed 2 degrees Celsius. Türkiye signed the Paris Agreement on April 22, 2016 and finally became a party on November 10, 2021. Within the scope of the international conventions to which Türkiye is a party regarding the prevention of the climate crisis and compliance with these conventions, the “Draft Law on Climate Change” is being prepared. The draft law emphasizes the energy efficiency of buildings, the use of building information modeling, and the construction of new buildings in a way that can use renewable energy, and determines the rights and obligations in these matters and emphasizes their importance in preventing the climate crisis. When international regulations on the climate crisis are examined, it is seen that different standards have been developed in line with various certification systems on environmental protection and

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energy efficiency. Although some of the commercial real estates currently operating in Türkiye have energy efficiency certificates recognized in Europe and the world, it has been determined that most of them do not carry out any activities within the scope of combating the climate crisis. There is a need to prioritize the achievement of social and institutional gains and their qualities to reduce energy cost elements without neglecting individual obligations in the fight against the climate crisis.

Within the scope of the study, the legal regulations, administrative units and certification systems established in Türkiye in order to prevent the climate crisis with international conventions have been focused on; the importance of international conventions and certification systems on environmental management of buildings and commercial real estate initiatives and studies to prevent the climate crisis has been emphasized.

**Key Words:** Climate crisis, commercial real estate, Draft Law on Climate Change, certification, energy costs

### Özet

İklim değişikliği, nüfus artışı ve enerji kaynaklarının kıtlığı, temiz, yenilenebilir ve düşük maliyetli enerjiye ihtiyacı beraberinde getirmiştir. Bu ihtiyaç sürdürülebilirlik tartışmalarının da odak noktasını teşkil etmektedir. İklimlerin değişmesi ve kaynakların hızla tükeniyor olması karşısında yaşamın ve çevrenin devamlılığını sağlamak ve iklim krizinin zararlı etkilerinden korunmak için genel çevre yönetiminin yanında alternatif yenilenebilir enerji olanaklarının yaratılması ve kullanılması, bu çerçevede binaların yapım ve tasarımının da çevre dostu olacak şekilde gerçekleştirilmesi bir zorunluluk olarak görülmektedir.

Dünyadaki iklim krizinin önlenmesine yönelik ilk uluslararası metin “BM İklim Değişikliği Çerçeve Sözleşmesi” 1992 yılında imzaya açılmış, 197 ülke sözleşmeye taraf olmuş, Türkiye bu sözleşmeye 2004 yılında katılmıştır. Birleşmiş Milletlerin yaptığı çalışmalar kapsamında 194 ülke ve AB tarafından 2015 yılında “Paris Anlaşması” imzalanmıştır. Paris Anlaşması ile taraf ülkelerin “ortak fakat farklılaştırılmış sorumluluklar ve göreceli kabiliyetler” prensibi dikkate alınarak iklim krizinin önlenmesine katkı sağlanmıştır. Anlaşma ile sera gazı emisyonlarının neden olduğu küresel sıcaklık artışının ideal bir rakam olarak sanayileşme öncesi dönemin 1,5 santigrat derece üzerinde tutulması ve bunun 2 santigratı geçmemesi hedeflenmektedir. Türkiye, Paris Anlaşmasını 22 Nisan 2016 tarihinde imzalamış ve nihayet 10 Kasım 2021 tarihinde taraf olmuştur. İklim krizinin önlenmesine ilişkin Türkiye’nin taraf olduğu uluslararası sözleşmeler ile bu sözleşmelere uyum kapsamında hazırlık aşamasında olan “İklim Değişikliği Kanunu Taslağı” düzenlenmiştir. Kanun taslağında; binaların enerji verimli olması, yapı bilgi modellerinin kullanılması, yeni binaların yenilenebilir enerji kullanabilecek şekilde yapılması konularına vurgu yapılarak bu hususlarda hak ve yükümlülükler belirlenmiş olup bunların iklim krizinin önlenmesindeki önemine



değ inilmiştir. İklim krizi hakkındaki uluslararası düzenlemeler incelendiğinde, çevrenin korunması ve enerji verimliliği konularında çeş itli sertifikasyon sistemleri doğrultusunda farklı standartların geliştirilmiş olduđu görölmektedir. Türkiye’de halihazırda faaliyet gösteren ticari gayrimenkullerin bir kısmında, Avrupa’da ve dünyada tanınan enerji verimlilik sertifikaları bulunmakla birlikte birçoğ unun iklim krizi ile mücadele kapsamında herhangi bir faaliyette bulunmadığı belirlenmiştir. İklim krizi ile mücadelede bireysel yükümlölükler ihmal edilmeden toplumsal ve kurumsal kazanımların sağ lanmasının ve bunların enerji maliyet unsurlarını azaltıcı niteliklerinin önceliklendirilmesine ihtiyaç duyulmaktadır.

Çalış ma kapsamında, uluslararası sözleşmeler ile iklim krizini önlemek amacıyla Türkiye’de yapılan yasal düzenlemeler ve kurulan idari birimler ile sertifikasyon sistemleri üzerine yoğunlaş ılmış; uluslararası sözleşmeler ve binaların çevre yönetimi hakkındaki sertifikasyon sistemleri ile ticari gayrimenkullerin iklim krizini önleme yönündeki girişimleri ve çalışmalarının önemi vurgulanmıştır.

**Anahtar Kelimeler:** İklim krizi, ticari gayrimenkuller, İklim Değ iş ikliğı Kanunu Taslağı, sertifikasyon, enerji maliyetleri



## Transition to Mandatory Sustainability Reporting in Türkiye

### */ Türkiye’de Zorunlu Sürdürülebilirlik Raporlamasına Geçiş*

Gülşah Günay<sup>1</sup>

#### Abstract

Sustainability has become an essential component of modern business, with countries taking significant steps to enhance reporting standards. In Türkiye, the transition to mandatory sustainability reporting began in 2022 under the authority granted by the Turkish Commercial Code (TCC) No. 6102 to the Public Oversight, Accounting and Auditing Standards Authority (KGK). This transition has been designed as a process aligned with international norms. Leveraging its authority under the TCC, KGK adapted the standards issued by the International Sustainability Standards Board (ISSB) under the IFRS Foundation to meet Türkiye’s national needs. Consequently, TSRS 1 and TSRS 2 were incorporated into the national legislation in December 2023, aiming to enhance the global competitiveness of Turkish companies. These standards require companies to disclose both financial and non-financial information, focusing on environmental, social, and governance (ESG) factors. They expect companies to identify and report risks and opportunities related to climate change, resource management, labor practices, and governance. Such disclosures improve corporate sustainability performance while providing investors, regulators, and stakeholders with transparent and reliable information. To support this transition, KGK introduced a four-step Capacity Development Program to facilitate compliance for companies and auditors. The program includes training, guidance materials, and technical support, raising awareness and easing implementation. Sectoral consultation meetings further address corporate needs and optimize practices. Türkiye’s shift to mandatory sustainability reporting is attracting international investors and strengthening the competitiveness of Turkish companies. This process contributes to Türkiye’s global sustainability goals and fosters long-term economic value creation. Led by KGK, it serves as a model for regulatory progress and inter-institutional collaboration. In conclusion, mandatory sustainability reporting represents a strategic milestone, marking a critical step in Türkiye’s path toward a sustainable future.

**Key Words:** Public Oversight Authority (KGK), sustainability reporting, TSRS (Türkiye Sustainability Reporting Standards), Environmental, Social, and Governance (ESG), capacity development program

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## Özet

Sürdürülebilirlik, modern iş dünyasının ayrılmaz bir parçası hâline gelmiş ve ülkeler, raporlama standartlarını geliştirmek için önemli adımlar atmaya başlamıştır. Türkiye’de zorunlu sürdürülebilirlik raporlamasına geçiş, 2022’de 6102 sayılı Türk Ticaret Kanunu’nun (TTK) Kamu Gözetimi, Muhasebe ve Denetim Standartları Kurumu’na (KGK) verdiği yetki kapsamında şekillendirilmiş ve uluslararası normlarla uyumlu bir dönüşüm süreci olarak planlanmıştır. TTK’nın verdiği yetki doğrultusunda KGK, IFRS Vakfı bünyesindeki Uluslararası Sürdürülebilirlik Standartları Kurulu’nun yayımladığı standartları Türkiye’nin ulusal ihtiyaçlarına uygun şekilde adapte etme yoluna giderek uluslararası alanda ülkemiz şirketlerinin rekabet gücünü korumalarını hedeflemiş ve TSRS 1 ile TSRS 2 Aralık 2023’te mevzuata kazandırılmıştır. Standartlar şirketlerin çevresel, sosyal ve yönetim faktörlerini dikkate alarak finansal ve finansal olmayan bilgileri raporlamalarını sağlamaktadır. Şirketlerin iklim değişikliği, doğal kaynakların sürdürülebilir yönetimi, iş gücü uygulamaları ve yönetim süreçlerine ilişkin risk ve fırsatlarını ortaya koymaları beklenmektedir. Bu bilgiler, yalnızca şirketlerin sürdürülebilirlik performanslarını artırmakla kalmayıp, aynı zamanda yatırımcılar, düzenleyiciler ve diğer paydaşlar için daha şeffaf ve güvenilir bir bilgi seti sunmaktadır. KGK, bu süreçte yalnızca standartları geliştirmekle kalmamıştır; aynı zamanda geliştirdiği 4 adımlı Kapasite Geliştirme Programıyla, şirketlerin ve denetim kuruluşlarının yeni düzenlemelere uyum sağlamasını kolaylaştırmak için önemli bir araç ortaya koymuştur. Program kapsamında eğitimler, rehber dokümanlar ve teknik destek sağlanarak farkındalık artırılmaktadır. Ayrıca, düzenlenen sektörel istişare toplantıları ve iş birlikleri, şirketlerin ihtiyaçlarını anlamak ve uygulamaları optimize etmek için kritik bir zemin oluşturmaktadır. Türkiye’nin zorunlu sürdürülebilirlik raporlamasına geçiş süreci, uluslararası yatırımcıların dikkatini çekmekte ve şirketlerimizin rekabet gücünü artırmaktadır. Bu dönüşüm, Türkiye’nin küresel sürdürülebilirlik hedeflerine katkıda bulunmasını sağlamanın yanı sıra, ekonomik sistemde uzun vadeli değer yaratılmasına da imkân tanımaktadır. KGK’nın öncülüğünde yürütülen bu süreç, yalnızca düzenlemeler açısından değil, aynı zamanda kurumlar arası iş birliği ve farkındalık oluşturma açısından da model teşkil etmektedir. Sonuç olarak, zorunlu sürdürülebilirlik raporlaması şirketler ve ülke ekonomisi için stratejik bir kilometre taşı mahiyeti taşımakta olup, sürdürülebilir bir geleceğe yönelik ülkemizin yol haritasının önemli bir adımını oluşturmaktadır.

**Anahtar Kelimeler:** Kamu Gözetimi Kurumu (KGK), sürdürülebilirlik raporlaması, TSRS (Türkiye Sürdürülebilirlik Raporlama Standartları), Çevresel, Sosyal ve Yönetişim (ESG), kapasite geliştirme programı



## **Strategic Frameworks for Energy Renovation of the Residential Building Stock: Urban Facilities Management and Industrial Ecology in Norway's Energy Renovation**

**Sara Amini<sup>1</sup>**  
**Alenka Temeljotov Salaj<sup>2</sup>**

### **Abstract**

**Problem:** The energy renovation of Norway's residential building stock presents unique challenges and opportunities due to the country's high rate of homeownership, the prevalence of single-family or detached houses, and its abundant supply of clean, affordable energy. While government incentives such as those provided by ENOVA have historically supported energy efficiency improvements, the focus has shifted toward non-residential buildings, leaving a significant gap in the residential sector, which constitutes the majority of the building stock. This gap underscores the need for innovative solutions that balance energy efficiency, low-carbon emissions, and cost-effectiveness in both the short and long term. **Purpose:** This paper explores how Urban Facilities Management (UFM), in combination with principles from industrial ecology, can be leveraged to drive a large-scale energy renovation wave in Norwegian residential buildings. **Method:** Using a multi-objective optimization framework, we analyze various retrofit scenarios, assessing the potential benefits and drawbacks for different stakeholders, including homeowners, the public sector, and private entities. Key factors such as the initial investment costs, payback periods, and long-term environmental benefits are examined to provide a comprehensive understanding of the trade-offs involved. We test our model and proposed strategies on a case-study building in Norway. **Results:** Our analysis answers the critical question: should individuals be empowered to take responsibility for their own energy renovations, or would a centralized approach, with UFM playing a coordinating role across the residential sector, yield better outcomes? **Implications:** We aim to provide a plan on how the renovation process can be optimized to meet future energy efficiency goals while minimizing costs and environmental impact. The findings will have implications for policymaking, suggesting whether a decentralized or centralized management model is more suited to achieving a sustainable transformation of the Norwegian residential building stock.

**Key Words:** Building energy modeling, renovation, industrial ecology, urban facilities management, optimization

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## Impact Analysis on Adaptive Reuse of Disused Heritage Buildings and Lands

Anastasiia Sedova<sup>1</sup>

### Abstract

This research paper examines the adaptive new, mixed or extended use of underutilised and abandoned cultural heritage with specific reference to human centered impact analysis and the creation of added value.

**Design/methodology/approach:** International and local case studies are analysed to explore creative holistic solutions to re-integrating underutilised and disused historic assets back into contemporary urban landscapes. The case study analysis encompasses: stakeholder valorisation; forms of obsolescence; dimensions of adaptability; interpretation of complex value relationships and human centered impact analysis.

**Findings/conclusion:** The case study findings indicate that sensitive adaptive reuse of obsolete historic structures to new uses has the potential to encourage positive inflows of investment capital with corresponding positive impacts on the economic values, attached to new and extended uses, in addition to creative, cultural, social, environmental and economic values for society.

**Originality/value:** The analysis provides insight into how adaptive reuse of abandoned cultural heritage buildings and lands has the potential to contribute to the transition towards circular economy, by highlighting the multidimensional relationships at play to achieve human centric historic landscapes.

**Key Words:** Adaptive reuse, cultural heritage, historic buildings and lands, impact analysis, sustainable development, value creation

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