

ALİ KEREM SAYSEL, CURRICULUM VITAE

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I. SHORT BIO

I have BS in Industrial Engineering (Bogazici University, 1990), MS and PhD degrees in Environmental Sciences and Technology (Boğaziçi University 1993 and 1999). I am an interdisciplinary scholar and teacher in environmental resources management, and socio-environmental sustainability research. My specialty is the field of System Dynamics, for modeling and simulation of dynamically complex problems with an endogenous focus. In my research, I adopt systems thinking, participatory modeling, and build on the methods of non-linear dynamic modeling, and interactive gaming. Particular thematic focus of my research is the food-water-energy-conservation nexus.

Since late 1990s, I am a member of the International System Dynamics Society, and since 2016, I am an associate editor of the journal of the society, *System Dynamics Review*. I am an expert in the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) task force on scenarios and models (2019-23), as a representative from East Europe and Central Asia region.

Focusing on the past five years, I have been either the local principal investigator or work package leader for the international research projects below:

I.1. Innovative and sustainable groundwater management in the Mediterranean. InTheMed project (2020-23), local principal investigator. PRIMA program supported by the European Union's HORIZON 2020 research and innovation program (grant no: 1923).

I.2. Soil salinity and sodicity management by sustainable irrigation practices in Konya Plain, Turkey. SAMIMI project (2019-21), work package leader. Newton Institutional Link Grand between UK and Turkey; TÜBİTAK (grant no: 118Y343), and the British Council (grant no: 414693137).

I.3. Green growth and win-win strategies for sustainable climate action. Green-Win project (2015-18), local principal investigator. H2020, Environment and Resources (grant no: 642018).

In education and program design, during the past five years:

I.4. I led the creation of the graduate program track on Socio-ecological Sustainability in the Institute of Environmental Sciences of Boğaziçi University, when I was in service as the academic division head of the Environmental Sciences MS program (2016-19), with emphasis on the fields of ecological economics and political ecology and various model-based sustainability assessment methods.

I.5. I am involved in a systems and sustainability oriented, international on-line education partnership, Systems Analysis MOOCs for Sustainability Transformation, Erasmus+ Strategic Partnership for Higher Education KA203 (2020-23) (grant no: 2020-1-NO01-KA203-076487)

I took role as academic steward for global sustainability:

I.6. I acted as a lead author of the IPBES Global Assessment on Biodiversity and Ecosystem Services (2016-2019).

II. EDUCATION

Ph. D. 1999. Institute of Environmental Sciences, Boğaziçi University, Turkey

Thesis: Dynamic Simulation Model for Long Term Comprehensive Environmental Analysis of GAP.

M.S. 1993. Institute of Environmental Sciences, Boğaziçi University, Turkey

Thesis: Effects of Urbanization on the Climate Fluctuations and Trends in Istanbul Between 1950-90.

B.S. 1990. Industrial Engineering Department, Boğaziçi University, Turkey

III. PREVIOUS POSITIONS

Professor (2014-23), Institute of Environmental Sciences, Boğaziçi University, Turkey

Associate Professor (2006-2014), Institute of Environmental Sciences, Boğaziçi University, Turkey

Assistant Professor (2004-2006), Institute of Environmental Sciences, Boğaziçi University, Turkey

Associate Professor (2001-2004), University of Bergen, Department of Information Science - System Dynamics Group, Bergen, Norway.

Research Assistant (1991-1999), Institute of Environmental Sciences, Boğaziçi University, Turkey

IV. ADMINISTRATIVE SERVICES

Bogazici University, Institute of Environmental Sciences, Head of Environmental Sciences Division, 2016-2019.

Bogazici University, Sexual Harassment Prevention Committee Member, 2016-2019

Bogazici University, Information Technologies Committee Member, 2012- 2016.

Bogazici University, Institute of Environmental Sciences Steering Committee Member, 2005-2008.

University of Bergen, Department of Information Science Steering Committee Member, 2002-2004.

V. LONG TERM RESEARCH VISITS

University of Bergen, (2019/09-2020/09), Department of Geography, System Dynamics Group

Worcester Polytechnic Institute, MA (2014/09-2015/09), Social Science and Policy Studies, System Dynamics Group

New University of Lisbon (2000/02-2000/08), Faculty of Environmental Sciences and Technology, Environmental Systems Analysis Group

VI. PUBLICATIONS

VI.0 Publications at the end of the pipeline

VI.0.1 Ocak S., **A. K. SAYSSEL**. (in revision *Water Alternatives*). From sustainable watershed development plans to a deep-sea discharge project: The failure of environmental conservation in Ergene, Turkey.

VI.1. In Peer Reviewed International Journals

VI.0.1 Öztürk H.S., S.D. Saygın, N.K. Coptıy, E. İzci, G. Erpula, B. Demirel, **A.K. SAYSSEL**, M. Babaei. 2023. Hydro-physical deterioration of a calcareous clay-rich soil in Central Anatolia, Turkey, by sodic water. *Geoderma Regional*. V. 33, article no: e00649.

VI.1.2 Tunca M. C., **A. K. SAYSSEL**, M. Babaei, G. Erpul. 2023. A dynamic model for salinity and sodicity management on agricultural lands: interactive simulation approach. *Ecological Modelling*. V. 482, article no: 110400.

- VI.1.3** Saygin S. D., H. S. Öztürk, M. O. Akca, N. K. Copty, G. Erpul, B. Demirel, **A. K. Saysel**, M. Babaei. 2023. Solute transport through undisturbed carbonatic clay soils in dry regions under differing water quality and irrigation patterns. *Geoderma*. V. 434, article no: 116489.
- VI.1.4** América PD; Jan Kuiper; AP Dutra Aguiar; WWL Cheung; MC Diaw; G Halouani; S Hashimoto; MA Gasalla; GD Peterson; M Schoolenberg; R Abbasov; LA Acosta; D Armenteras; F Davila; M Argaw; PA Harrison; KA Harhash; S Karlsson-Vinkhuyzen; HJ Kim; CJ Lunquist; BW Miller; S Okayasu; R Pichs-Madruga; J Sathyapalan; **AK Saysel**; D Yu; LM Pereira. 2023. Bringing the Nature Futures Framework to life: creating a set of illustrative narratives of nature futures. *Sustainability Science*. DOI: 10.1007/s11625-023-01316-1.
- VI.1.5** Ciobanu N., **A. K. Saysel**. 2021. Using social ecological inventory and group model building for resilience assessment to climate change in a network governance setting: A case study from Ikel Watershed in Moldova. *Environment, Development and Sustainability*. V. 23(1), pp. 1065-717.
- VI.1.6** Chan, KMA; Boyd, DR; Gould, RK; Jetzkowitz, J; Liu, JG); Muraca, B; Naidoo, R; Olmsted, P; Satterfield, T; Selomane, O; Singh, GG; Sumaila, R; Ngo, HT; Boedhihartono, AK; Agard, J; de Aguiar, APD; Armenteras, D; Balint, L; Barrington-Leigh, C; Cheung, WWL; Diaz, S; Driscoll, J; Esler, K; Eyster, H; Gregr, EJ; Hashimoto, S; Pedraza, GCH; Hickler, T; Kok, M; Lazarova, T; Mohamed, AAA; Murray-Hudson, M; Farrell, PO; Palomo, I; **Saysel, AK**; Seppelt, R; Settele, J; Strassburg, B; Xue, DY; Brondizio, ES. 2020. Levers and Leverage Points for Pathways to Sustainability, *People and Nature*. V. 23 (1), pp. 1065-85
- VI.1.7** Yazar M, D. Hestad, D. Mangalagiu, Y. Ma, T. F. Thornton, **A. K. Saysel**, D. Zhu. 2020. Enabling Environments for Regime Destabilization towards Sustainable Urban Transitions in Megacities: Comparing Shanghai and Istanbul. *Climatic Change*. V. 160 (4), pp. 727-752
- VI.1.8** Thornton T. F., D. Mangalagiu, Y. Ma, J. Lan, M. Yazar, **A. K. Saysel**, A. Chaar. 2020. Cultural models of and for urban sustainability: assessing beliefs about Green-Win. *Climatic Change*. V. 160 (4), pp. 521-537.
- VI.1.9** Yazar M., D. Hestad, D. Mangalagiu, **A. K. Saysel**, Y. Ma, T. Thornton. 2020. From urban sustainability transformations to green gentrification: Urban renewal in Gaziosmanpaşa, Istanbul. *Climatic Change*. V. 160 (4), pp. 637-653.
- VI.1.10** Doğança Z., **A. K. Saysel**. 2018. Developing Seventh Graders' Understanding of Complex Environmental Problems with Systems Tools and Representations: A Quasi-Experimental Study, *Research in Science Education*. V. 48, pp. 491-514
- VI.1.11** **Saysel, A. K.** 2017. Role of Information Feedback in Soil Nitrogen Management: Results from a Dynamic Simulation Game, *Systems Research and Behavioural Science*, special issue in System Dynamics. V. 34, pp. 424-439
- VI.1.12** Öztürk, M., N. Copty, **A. K. Saysel**. 2013. Modeling the Impact of Land Use Change on the Hydrology of a Rural Watershed, *Journal of Hydrology*, V. 497, pp. 97-109
- VI.1.13** **Saysel, A. K.**, M. Hekimoğlu. 2013. Exploring the Options for Carbon Dioxide Mitigation in Turkish Electric Power Industry, *Energy Policy*, V. 60, pp. 675-686
- VI.1.14** Moxnes, E., **A. K. Saysel**. 2009. Misperceptions of Global Climate Change: Information Policies, *Climatic Change*, 93: 15-37
- VI.1.15** **Saysel, A. K.**, Y. Barlas. 2006. Model Simplification and Validation: Illustration with Indirect Structure Validity Tests, *System Dynamics Review*, V. 22. No: 3, pp. 241-262
- VI.1.16** Castillo, D., **A. K. Saysel**. 2005. Simulation of Common Pool Resource Field Experiments: A Behavioural Model of Collective Action, *Ecological Economics*, V.55, pp. 420-236

VI.1.17 Saysel, A. K., Y. Barlas, O. Yenigun. 2002. Long Term Sustainability in an Agricultural Development Project: A System Dynamics Approach, *Journal of Environmental Management*, V. 64. No: 247, pp. 247-260

VI.1.18 Saysel, A. K., Y. Barlas. 2001. A Dynamic Model of Salinization on Irrigated Lands, *Ecological Modelling*, V. 139. No: 2-3, pp. 177-199

VI.2. In Edited International Volumes

V.2.1 Feola G., C. Sattler and A. K. Saysel. 2012. Simulation Modeling in Farming Systems Research: Potential and Challenges, in *The Farming Systems Approach into the 21st Century: The New Dynamic*, (ed. I. Darnhofer, D. Gibbon, B. Dedieu),), Springer, pp. 281-306. ISBN 9789400745025. DOI: 10.1007/978-94-007-4503-2_13

VI.2.2 Saysel A. K. 2010. Agriculture in Turkey Towards a New Climatic Era: Prospects and Challenges, in *Rethinking Structural Reform in Turkish Agriculture: Beyond the World Bank's Strategy*, (ed. Barış Karapınar, Fikret Adaman and Gökhan Özertan), Nova Science Publishers.

VI.2.3 Saysel A. K. 2004. Irrigation Projects, Agricultural Dynamics and the Environment, in *Encyclopedia of Life Support Systems (EOLSS)*, System Dynamics Chapter (ed. Yaman Barlas), UNESCO Publishing, Paris-Oxford.

VI.3. In Peer Reviewed Journals in Turkey

VI.3.1 Sansarcı E., A. A. Aşıcı, A. K. Saysel. 2014. System Dynamics Model of the Original Philips Curve, *Düzce Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, V. 2, pp. 25-44.

VI.3.2 Doğança Z., A. K. Saysel. 2013. Yedinci Sınıf İnsan ve Çevre Ünitelerine Eleştirel Bir Yaklaşım: Dinamik ve Karmaşık Çevre Problemlerinin Öğretilmesi, *Boğaziçi Üniversitesi Eğitim Fakültesi Dergisi*. V. 30, pp. 87-106.

VI.4. In Conferences and Workshops (the last ten years)

VI.4.1 Uygur İ., A. K. Saysel, Sustainable Groundwater Management in Konya Closed Basin in Turkey: Participatory System Dynamics Approach, 2023 International System Dynamics Conference, 23-27 July, Chicago and on-line.

VI.4.2 Uygur İ., O. C. Yoloğlu, N. K. Coptý, İ. Daloğlu Çetinkaya, and A. K. Saysel, Partial validation of a socio-economic system dynamics model against a process-based hydro-geological model, *EGU General Assembly 2023*, 24-28 April 2023, Vienna

VI.4.3 Khandandel M., O. C. Yoloğlu, D. Secci, V. Todaro, İ Daloğlu Çetinkaya, N. K. Coptý, and A. K. Saysel, Drought Risk Assessment for an Agricultural Basin in Turkey using SPEI and SPI, *EGU General Assembly 2023*, 24-28 April 2023, Vienna

VI.4.4 Yoloğlu O. C., İ. Uygur, N. K. Coptý, İ Daloğlu Çetinkaya, and A. K. Saysel, Evaluation of Different Water Management Practices for the Sustainable Use of Groundwater Resources in the Konya Closed Basin, *EGU General Assembly 2023*, 24-28 April 2023, Vienna

VI.4.5 Secci D, V.Todaro, O.C. Yologlu, N. K. Coptý, İ. Daloglu Çetinkaya, M. D'Oria, A. K. Saysel, M. G. Tanda and A. Zanini, An artificial neural network as a quick tool to assess the effects of climate change and agricultural policies on groundwater resources, *EGU General Assembly 2023*, 24-28 April 2023, Vienna

VI.4.6 Daloğlu Çetinkaya, İ., Uygur, İ., Saysel, A. K., Yoloğlu, O. C., & Coptý, N. K., Groundwater use in a semi-arid area: Governance of an overexploited resource. *SustainValencia2022 Conference*, Valencia, Spain, 6-8 October 2022.

- VI.4.7** Bal, E., & Saysel, A.K. A Multiplayer Simulation Game of Groundwater Appropriation Problems in Irrigation. *SustainValencia2022 Conference*, Valencia, Spain, 6-8 October 2022.
- VI.4.8** Yoloğlu, O.C., Copty, N. K., Uygur, I., Tunca, M. C., Bal, E., Yetisti, B., Daloğlu, I., & Saysel, A. K., Regional-Scale Modeling of Surface-Subsurface Flow: The Konya Closed Basin Case Study. *7th IAHR Europe Congress*, Athens, Greece, 7-9 September 2022.
- VI.4.9** Todaro, V., Secci, D., D'oria, M., Tanda, M. G., Zanini, A., Azevedo, L., Ghrabi, A., Gómez-Hernández, J. J., Jomaa, S., Karatzas, G., & Saysel, A. K. Local climate change assessment at five pilot sites in the Mediterranean region. *7th IAHR Europe Congress*, Athens, Greece, 7-9 September 2022.
- VI.4.10** Bal, E., Saysel, A.K. A Multiplayer Simulation Gaming for Sustainable Groundwater Irrigation. *The 2022 System Dynamics Conference*, Frankfurt, Germany, 19-22 July 2022.
- VI.4.11** Tunca, M.C., Saysel, A.K. A dynamic model for salinity and sodicity management on agricultural lands: interactive simulation approach. *The 2022 System Dynamics Conference*, Frankfurt, Germany, 19-22 July 2022.
- VI.4.12** Jomaa, S., Ben-Salem, N., Chávez, R., Reinecke, R., Varouchakis, E., Vasco Silva, J., Ceseracciu, C., Phuoc Lai Nguyen, T., Daloglu Cetinkaya, I., Saysel, A. K., Copty, N. K., Rouhani, A., Oueslati, M., Mino, E., Karatzas, G. P., Roggero, P. P., Rode, M., & Gómez-Hernández, J. J. Inclusive and resilient groundwater assessment towards sustainable development in the Mediterranean region. *IAHS-AISH Scientific Assembly 2022*, Montpellier, France, 29 May – 3 June 2022.
- VI.4.13** Saysel A.K. and Ciobanu N. System Dynamics Approach to Resilience and its Use for Sustainability and Vulnerability Analysis. *3. International Disaster and Resilience Congress*, 5-7 October 2021
- VI.4.14** Uygur I., I. Daloğlu-Çetinkaya, A. K. Saysel. Groundwater Governance in Çumra-Karapınar: From Community management to an Open Access Regime. *8. KOP Regional Development Symposium*, 26-8 October 2021.
- VI.4.15** Seifeddine J, R. Reinecke, N. Ben-Salem, R. C. G. Silva, E. Varouchakis, J. V. Silva, C. Ceseracciu, T.P.L. Nguyen, I. Daloglu Cetinkaya, A.K. Saysel, N. K. Copty, G. P. Karatzas, I. Trichakis, M. Pasqui, E. Heggy, S. Maurizi, P.P. Roggero, M. Rode, J.J. Gómez-Hernández. Multidisciplinary joint-force efforts towards science-based management in the Mediterranean region: A particular focus on transboundary aquifers, *ISARM 2021 - International Conference on Transboundary Aquifers "Challenges and the way forward"* December 6-9, 2021.
- VI.4.16** Tunca M. C., A. K. Saysel, M. Babaei, G. Erpul. A Dynamic Simulation Approach to Soil Salinity and Sodicity Control, *EGU General Assembly*, 19-30 April 2021.
- VI.4.17** Akar E., A. K. Saysel. Occupational Safety Dynamics in Onshore LNG Receiving Terminals. *The 2020 Conference of the System Dynamics Society*, Virtually in Bergen, Norway, July 19-24, Norway
- VI.4.18** Bal E., A. K. Saysel. Groundwater Appropriation Game: A Dynamic Simulation Approach. *The 2020 Conference of the System Dynamics Society*, Virtually in Bergen, Norway, July 19-24, Norway
- VI.4.19** Ciobanu N., A. K. Saysel. Group Model Building For Socio-Ecological Resilience Analysis: A Case Study From Ikel Watershed In The Republic Of Moldova. *Thirty-sixth System Dynamics Conference*, Reykjavik, Iceland, August 6-10, 2018.
- VI.4.20** Mirhanoğlu A., A. K. Saysel. Sustainable Groundwater Irrigation in Mardin Kızıltepe Plains of Southeast Turkey. *Thirty-sixth System Dynamics Conference*, Reykjavik, Iceland, August 6-10, 2018.

VI.4.21 Saysel, A. K. Living Within the Planetary Capacity: A Dynamic Feedback Approach, *Thirty-third System Dynamics Conference*, Cambridge, MA, July 19-23, 2015.

VI.4.22 Saysel, A. K. Analyzing Soil Nutrient Management with Dynamic Simulation Experiments, *Thirty-second System Dynamics Conference*, Delft, Netherlands, July 20-24, 2014.

VI.4.23 Saysel A. K., S. Kaptan. Analyzing Fertilizer Use on Farmlands with Computer Simulation Experiments, *9th International Conference of the European Society for Ecological Economics*, 18-21 June 2013, Lille, France.

VII. TEACHING

VII.1. Teachings in UiB

GEO-SD 302 Fundamentals of Dynamic Social Systems

GEO-SD 306 Dynamic Complexity and Decision Experiments

GEO-SD 311 Analytical Methods and Advances Modeling (shared)

GEO-SD 350 Research writing (shared)

VII.2. Teaching in BU

Dynamic Modeling of Socio-Ecological Systems, Boğaziçi University, Institute of Environmental Sciences, İstanbul (2006 - 2022).

Systems and Sustainability, Boğaziçi University (2006 - 2022).

Simulation Gaming and Decision Experimentation, Boğaziçi University, Industrial Engineering Department, İstanbul (2005 - 2018).

Social Ecology, Institute of Environmental Sciences, Boğaziçi University (2010 - 2023).

VII.3. Teaching in other universities

System Dynamics, Sabancı University, Industrial Engineering Department, İstanbul (2005)

System Dynamics Research Method and Advanced Model Analysis, University of Bergen, Department of Information Science (2001-2004).

System Analysis in Coastal Management, New University of Lisbon, Department of Environmental Science and Engineering (2000).

VIII. GRADUATE STUDENT SUPERVISIONS

VIII.1. Ph. D. Supervisions in Boğaziçi University

Elif Bal - Participatory System Dynamics Approach to Facilitate Multisectorial Sustainable Water Management in Konya Closed Basin (started in 2023, on-going).

Natalia Ciobanu – Building Resilience to Climate Change Impacts in the Ichel Watershed in Moldova: A Participatory Modeling Approach (2022)

Leyla Güzeloğlu Kabasakal – Sustainability in Milk Production in Turkey: A Social Multi-criteria Assessment (2019)

Zerrin Doğança - Teaching Dynamic Environmental Problems to Seventh Grades with Systems Approach (2013).

Melih Öztürk (co-supervised with Nadim Copty) - An Integrated Land Use - Hydrological Model For the Sustainable Management of Bartın Spring Watershed (2009).

VIII.2. M.S. Supervisions in Boğaziçi University

İzel Uygur – System Dynamics Approach to Strategic Groundwater Management in Çumra- Konya, Turkey (2023)

Anna Beaucamp – Freshwater Supply in Samothraki, Greece: A Social-Ecological Systems Analysis (2021)

Mehmet Can Tunca - A Dynamic Simulation Approach to Soil Salinity and Sodidity in Konya Plain of Turkey (2021)

Elif Bal – Groundwater Appropriation Game: A Dynamic Systems Approach (2020)

Deniz Ülkat - Long-Term Impacts of Variable Renewable Energy Sources (Vres) on Electricity Generation in Turkey: A Systems Modeling Approach (2020).

Ezgi Talum – Improving 10th Graders’ Understanding of Atmospheric Carbon Control with Stocks and Flows (2019)

Ezgi Akar – System Dynamics Of Industrial Accidents In On-Shore Oil Terminals (2019)

Adnan Mirhanoglu - Systems Approach And Modeling For Sustainable Groundwater Irrigation: A Case Study In Mardin Kiziltepe Plain (2018)

Semra Ocak - Political Ecology Of Pollution Control Failure In Ergene Basin Of Thrace, Turkey (2018)

Mahir Yazar - The Policy Mobility Of Energy Efficiency And Green Gentrification In The Urban Renewal Of Istanbul (2018)

Emre Dönmez – Political Ecology of Small Hydropower Plant Constructions in the Province of Rize (2012).

Yeşim Akpınar – A Dynamic Simulation Model of Carbon Circulation and Methane Feedbacks in Anthropogenic Climate Change (2009).

VIII.3. Ph. D. Supervisions in Other Institutes

Engin Sansarçı (co-supervised with Ahmet Atıl Aşıcı, İTÜ Graduate School of Social Sciences) – A System Dynamics Model of Inflation (2016).

VIII.4. M. S. Supervisions in Other Institutes

Nikolaus Karg – The Ice-Albedo Feedback: System Dynamics Approach, Environmental Engineering, Technische Universität München, (2012).

Porfirio Guevera – Efficiency of Primary Education in Nicaragua: A System Dynamics Analysis (2004). University of Bergen

Azeem Quereshi – Firm Value Management: A System Dynamics Approach (2004). University of Bergen

Daniel Castillo – System Dynamics Simulation of Cooperation Experiments in Old Providence Island, Colombia (2002). University of Bergen

Mingi Xu – Integration of Financial and Commodity Markets with System Dynamics Methodology (2002). University of Bergen

IX. RESEARCH PROJECTS

Sustainable water storage and distribution in the Mediterranean. OurMed project. PRIMA – Partnership for Research and Innovation in the Med Area (2023-26). I’m participating as a researcher and work package leader.

Multiplayer Simulation Gaming for Sustainable Groundwater Irrigation. Principle Investigator. Boğaziçi University Research Fund (2021-23)

Innovative and Sustainable Groundwater Management in the Mediterranean. InTheMed project. Principal investigator. PRIMA – Partnership for Research and Innovation in the Med Area (2020-23)

Soil salinity and sodicity management by sustainable irrigation practices in Konya Plain, Turkey. WP leader. Newton Institutional Link Grand between UK and Turkey (2019-2021)

Building Resilience to Climate Change Impacts in the Ichel Watershed in Moldova: A system Dynamics Approach. Principal investigator with PH. D. candidate Natalia Ciobanu (2016-2019)

Systems Approach and Simulation Modeling for Sustainable Management of Groundwater Commons. Principle investigator with MS candidate Adnan Mirhanoglu. Boğaziçi University Research Fund, (2016-2018)

Green growth and win-win strategies for sustainable climate action. Local principle investigator. H2020, Environment and Resources, Project no 642018 (2015-2018)

Misperceptions of Soil Nutrient Dynamics and Fertilizer Overuse: An Experimental Evaluation. Principal investigator. Boğaziçi University Research Fund, no: 6376 (2012-2014).

Teaching Dynamic Environmental Problems to Seventh Graders with Systems Approach. Principal investigator with Ph.D. candidate Zerrin Doğanca. Boğaziçi University Research Fund, no: 5729 (2011-2013).

Dynamics of Carbon Mitigation in Electric Power Industry. Principal investigator with graduate assistant Mustafa Hekimoğlu. Boğaziçi University Research Fund, no: 5136 (2009-2010).

Irrigation policy analysis to evaluate the effects of farm level incentives on waterlogging and salinization. Principle investigator with Gökhan Özertan. Boğaziçi University Research Fund, no: 07S103, (2007-2009).

An Integrated Land Use-Hydrological Model for the Sustainable Management of Bartın Spring Watershed. Principle investigator with Ph.D. candidate Melih Öztürk and Nadim Coptý. Boğaziçi University Research Fund, no: 06HY102D, (2006-2008).

Global Carbon Emissions Trading Among Developed and Underdeveloped Countries under Contraction and Convergence Framework. Principle investigator. Boğaziçi University Research Fund, no: 05Y102, (2005-2006).

Systematic Misperceptions of the dynamics of anthropogenic climate change by the general electorate. Researcher with Erling Moxnes. Meltzers Høyskolefund, (2002-2004).

X. SELECTED PROFESSIONAL ACTIVITIES

Systems Analysis MOOCs for Sustainability Transformation, Erasmus+ Strategic Partnership for Higher Education KA203 (2020-23), Coordinator: UiB, Erling Moxnes, with six European partners

Africa's Coexistence Landscapes Hwange-Kazuma Chobe Transfrontier Conservation Area (KaZa TFCA) Modeling Workshops. Facilitator and supervisor for water resources modeling. UNEP and the Kaza Secretariat. (2019-20)

UN International Panel on Biodiversity and Ecosystem Services (IPBES) Task Force for Scenarios and Models, member (2019-2023)

Improving People's Health and Unburdening the Health System Through Renewable Energy in Turkey: Assessing the Co-benefits of Decarbonizing the Power Sector, with N. Coptý, F. Gaçal, İ. Daloğlu and Ç. Çağlayan. Report delivered to IASS, Postdam (2019)

UN International Panel on Biodiversity and Ecosystem Services (IPBES) Global Assessment, Lead Author for Chapter 5 on Pathways and Scenarios (2016-2019)

System Dynamics Review, associate editor (2016-)

Greenpeace, 2014. *Turkey's Energy [R]evolution*. National Advisor on Energy Issues. (2014)

Simulation & Gaming Journal, Special Issue on System Dynamics and Simulation Gaming, forthcoming in 2014, invited review committee member.

"Systems Language of Ecology" Summer School, TUBITAK 4004 Project no: 112B100, 10-14 September 2012, Boğaziçi University, İstanbul, project leader.

Conflict Over Commons Summer School: Fisheries, Co-organized by Boğaziçi University and The University of Manchester, August 27th-September 2nd 2012, İstanbul, organizing committee member.

International Farming Systems Association, 10th European Symposium, 1-4 July 2012 in Aarhus, Workshop in Integrated Simulation Modeling, organizing committee member.

9th International Conference of the European Society of Ecological Economics, 14-17 June 2011, Boğaziçi University, İstanbul, organizing committee member.

International System Dynamics Society, 2006-2009, policy council member.

XI. INTERNATIONAL PHD COMMITTEE MEMBERSHIPS

The list below is not the all but selected contributions:

Giuseppe Feola, Sustainability transition of pesticide use practices: behavioural dynamics and policy options; PhD thesis submitted to Department of Geography of the University of Zurich (2010); my role is external sensor;

Andreas Gerber, The dynamics of food availability in Sub-saharan Africa, PhD thesis submitted to Department of Geography of the University of Bergen (2017); my role is external sensor;

Kanokwan NiNa Dhirasasna, A study of renewable energy technology adoption, PhD thesis submitted to Griffith University, Queensland Australia (2020); my role is external sensor;

Mehdi Hafezi, A Hybrid Modelling Framework for Ecosystem-Based Climate Change Adaptation Using System Dynamics and Bayesian Networks, PhD thesis submitted to Griffith University, Queensland Australia (2020); my role is external sensor;

Amando A. Radomes, Jr. Essays on Strategic Management: Organizational Adaptation through Sustainability Standards Adoption, PhD thesis in submission to Aarhus University, Denmark (2023); my role is external sensor;

XII. PUBLIC COMMENTARIES AND TALKS

The public commentaries and talks are mostly in Turkish, although some of them are focusing on sustainability matters at global as well as national scale. These have been published in various public media, delivered as speeches on broadcasting channels and collected in the repository below: If interested, I believe content would be revealed through on-line translation tools:

alisayselekoloji.blogspot.com

XIII. BROADER EDUCATIONAL SERVICES

Publication of several internationally renown authors on education, ecology and environment in Turkish:

Sheila Jasanoff, *The Ethics of Invention*, BGST, 2020, translated and edited with others' contributions

Bertrand Russell, *Education and Social Order*, BGST, 2016, translated and edited with others' contributions

Robin Hahnel, *Green Economics*, BGST 2014, translated and edited with others' contributions

Vandana Shiva, *Earth Democracy*, BGST 2009, translated and edited with others' contributions

Noam Chomsky, *Democracy and Education*, BGST 2007, translated and edited with others' contributions

Vandana Shiva, *Water Wars*, BGST 2007, translated and edited with others' contributions

Tom Athanasiou ve Paul Baer, *Dead Heat*, BGST 2006, translated and edited with others' contributions

Vandana Shiva, *Stolen Harvest*, BGST 2006, translated and edited by AKS.