

Stefanos Xenarios

CURRICULUM VITAE

Contact Details

Graduate School of Public Policy, Kabanbay Batyr Ave.,
53, Block C3 (42), Astana, 010000, Kazakhstan,
<https://gspp.nu.edu.kz/en/stefanos-xenarios/>

Personal Details

Date of Birth: 29.12.1973
Place of Birth: Athens, Greece, Nationality: Greek
Email: stefanos.xenarios@nu.edu.kz

Education

- 2007 PhD in Environmental Economics, *Thesis: Valuating ecological services in receiving waters of urban wastewater systems. The European Experience*, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens, Greece
- 2002 Postgraduate Diploma in Ecological Economics, Dissertation: *Assessing the socio-economic value of the Axios Delta river in North Greece*, School of Geosciences, University of Edinburgh, Scotland, UK
- 1997 BA in Faculty of Political Science and Public Administration, Sector: International and European Studies, National and Kapodistrian University of Athens, Greece

Distinctions and Scholarships (mm/yy)

- 08/22-Present Vice Dean of Research, Graduate School of Public Policy, Nazarbayev University, Astana, Kazakhstan
- 12/18-Present Adjunct Senior Researcher, Institute of Water Policy, Lee Kuan Yew School of Public Policy, National University of Singapore (NUS), Singapore
- 09/17 Lead Editor in the Book "[The Aral Sea Basin: Water for Sustainable Development in Central Asia](#)" with 60 contributing authors, Earthscan Series on Major River Basins of the World, Routledge Publ, ISBN: 978-1-13-834888-2
- 10/06-7/07 Intra-European European Fellowship for career Development (Marie Curie-IEF) at the Research Sustainable Institute (RSI), Leeds University, United Kingdom

Professional Positions (mm/yy)

Senior Professional/Professorship

- 05/18-Present Assoc. Professor, Graduate School of Public Policy, Nazarbayev University, Astana, Kazakhstan
- 02/17-04/18 Senior Researcher, University of Central Asia, Bishkek, Kyrgyzstan
- 10/15-01/17 Senior Adviser, Organization for Security and Co-operation in Europe, Dushanbe, Tajikistan

Researcher

- 11/11- 09/15 Norwegian Institute for Bioeconomy Research, Aas, Norway
- 10/08-10/11 International Water Management Institute, East Africa and Nile Basin office, Addis Ababa, Ethiopia (2010-2011) and South Asian Sub-Region Office, New Delhi, India (2008-2009)

Research Associate

- 10/07-08/08 Hellenic Foundation for European & Foreign Policy, Athens, Greece
- 01/03-09/07 Institute of Urban and Regional Development, Athens, Greece

Research Assistant

- 05/02-10/02 International Council for Local Environmental Initiatives in Europe, Germany
- 01/01-12/01 Laboratory of environmental economics, Aegean University, Greece
- 10/98-12/00 World Wide Fund for Nature, Athens, Greece

Civil Service

- 01/97-07/98 Hellenic Armed Air Force, Central and Southeast Greece

Professional Activities (mm/yy)

Central Asia (Kyrgyzstan-Kazakhstan-Tajikistan-Uzbekistan-Afghanistan)

- 02/17-Present Co-Chair of the [UN Sustainable Development Solutions Network \(SDSN\)](#) Chapter in Kazakhstan
Developing studies on Urban Water and Wastewater Supply Systems (WWS) in Central Asia in collaboration with Corvinus University, Hungary
Developing interdisciplinary research on water resources management in Uzbekistan in collaboration with the Leibniz Institute for Agrarian Development in Countries with Transition Economies (IAMO), Germany
External Evaluation of the Natural Water Resources Management Project in Tajikistan funded by Swiss Cooperation Office
Developing studies on agricultural water management in collaboration with Bamyan and Faizabad universities, Afghanistan
- 10/15-01/17 Supporting governmental authorities and civil society of Tajikistan in a) assessing climate change effects and dam safety policies in the country b) enhancing co-operation between Tajikistan and Afghanistan on river basin management approaches c) supervising feasibility studies for small hydropower plants in rural areas of Tajikistan

South Asia (India-Nepal-Pakistan-Bangladesh)

- 04/12-08/15 “An integrated science-stakeholder-policy approach to develop adaptation framework for water and agriculture sectors in Andhra Pradesh and Tamil Nadu states of India-ClimaAdapt”, Funding: Norwegian Embassy in Delhi, India, *Activity: Assessing potential gender inequalities emerged from climate variability and weather extremes (South India)*, *Means: Multivariate Statistics, Attribute Agreement Analysis*
- 12/11-12/14 “Sustaining rice production under climate change in Bangladesh-RiceClima, Funding: Norwegian Embassy in Dhaka, Bangladesh, *Activity: Assessment of efficient agricultural interventions and development of vulnerability index (East and South Bangladesh)*, *Means: Multicriteria with Visual Promethee 1.4, Principal Component Analysis*
- 10/08-12/09 “Basin Focal Project for Indus-Gangetic Basin”, Funding: Challenge Program on Water and Food (CPWF), *Activity: Assessing direct and indirect costs of agricultural water use (Pakistan, India, Nepal)*, *Means: Demand-driven costs functions*
“Sustainable Livelihood Improvement through Need Based Integrated Farming System Models in Disadvantaged Districts of Bihar”, Funding: Indian Institute for Agricultural Research (ICAR), *Activity: Identifying economic implications of agricultural water to small and marginal farmers (Eastern India)*, *Means: Demand-driven cost functions, Water supply modeling*

Southeast Asia (Laos-Philippines-Indonesia)

- 04/04-05/06 “Feasibility study for the implementation on energy integrated urban planning (EUIP) in ASEAN cities and applicability of European approach”, Funding: Europe-Aid, *Activity: Assessing costs of sustainable urban planning in South Asia (Vietnam, Laos and Philippines)*, *Means: Cost-Effectiveness of selected energy systems*

East and West Africa (Ethiopia-Ghana)

- 01/10-10/11 “Re-Thinking Water Storage for Climate Change Adaptation in Sub-Saharan Africa”, Funding: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, *Activity: Economic assessment of water storage options (Ghana, Ethiopia)*, *Means: Electre III Outranking Multicriteria Method, AquaCrop modeling*

“Groundwater in sub-Saharan Africa: Implications for food security and livelihoods”, Funding: Rockefeller Foundation, *Activity: Valuating drilling costs and conducting forecasting analysis (selected Sub-Saharan African countries)*, *Means: Cost disaggregation, Institutional Economics and Time series analysis*

Middle East (Egypt)

10/07-08/08 “Climate change effects in vulnerable groups with reference to women, children and environmentally forced migration”, Funding: Greek Ministry of Foreign Affairs, *Activity: Technical Coordinator and conducting of compilation study in climate change and human security*, *Means: Categorical data classification in conceptual and qualitative terms*

Europe (Greece-Austria-Italy-Germany)

04/03-10/06 “Cost-effective development of urban wastewater systems for Water Framework Directive compliance”, Funding: Fifth Framework Research Program of European Union (FP5), *Activity: Economic assessment of environmental services in catchments associated with wastewater systems (Greece, Austria)*, *Means: Generic ecological-economic framework*

01/03-10/06 “Développement d’Actions pour le Marketing et la Gestion post évènements”, Funding: Interreg IIIB Programme, European Union, *Activity: Assessing direct economic impacts of natural disasters (North Italy)*, *Means: Combination of non-market and market valuation techniques*

05/02-10/02 “Developing Institutional and Social Capacities for Urban Sustainability- DISCUS”, Funding: Fifth Framework Research Programme of European Union (FP5), *Activity: Identifying economic implications of urban sustainable development (Germany)*, *Means: State-Pressure applied frameworks*

01/01-12/01 “European Catchments: Catchment changes and their impact on the coast- EUROCAT”, Funding: Fourth Framework Research Programme of European Union (FP4), *Activity: Economic assessment of coastal areas through multicriteria decision aid tools (North Greece)*, *Means: Content Analysis and Focus Groups technique*

10/98-12/00 Workcamp organizer and assistant research officer in WWF’s European Freshwater Scorecard Project “European Freshwater Programme, Water and Wetland Index”, Funding: WWF International, *Activity: Water quality assessment and economic implications (North Greece)*, *Means: Qualitative data analysis*

Publications

Peer-Reviewed Papers

1. Assubayeva A, Xenarios S, Li A and Fazli S (2022), Assessing water security in Central Asia through a Delphi method and a clustering analysis. *Front. Environ. Sci.* 10:970633. doi: 10.3389/fenvs.2022.970633
2. Xenarios S., Yakubov, M., Baubebova, A., Olzhas, A., Zhalgas, Z., Araral, E Jr (2022) Transboundary Water Governance in Central Asia, *Oxford Research Encyclopedia of Environmental Science*, <https://doi.org/10.1093/acrefore/9780199389414.013.784>
3. Lim, M., **Xenarios, S.** (2021) Economic assessment of urban space and blue-green infrastructure in Singapore, *Journal of Urban Ecology*, Volume 7, Issue 1, juab020, <https://doi.org/10.1093/jue/juab020>
4. **Xenarios, S.**, Laldjebaev, M., Shenhav, R. (2021) Agricultural Water and Energy Management in Tajikistan: a New Opportunity, *International Journal of Water Resources Development*, DOI: 10.1080/07900627.2019.1642185
5. **Xenarios, S.**, Assubayeva, A., Lei X. et al (2020) A bibliometric review of water security concept in Central Asia, *Environmental Research Letters*, <https://doi.org/10.1088/1748-9326/abc717>

6. Sarbassov Y, Sagalova T, Tursunov O, Venetis C, **Xenarios S**, Inglezakis V. Survey on Household Solid Waste Sorting at Source in Developing Economies: A Case Study of Nur-Sultan City in Kazakhstan. *Sustainability*. 2019; 11(22):6496. <https://doi.org/10.3390/su11226496>
7. Alamanos A, Latinopoulos D, **Xenarios S**, Tziatzios G, Mylopoulos N Loukas A (2019) Combining hydro-economic and water quality modelling for optimal management of a degraded watershed, *Journal of Hydro-informatics*, 1 November 2019; 21 (6): 1118–1129. doi: <https://doi.org/10.2166/hydro.2019.079>
8. **Xenarios S**, Gafurov A, Schmidt-Vogt D. et al. (2019) Climate change and adaptation of mountain societies in Central Asia: uncertainties, knowledge gaps, and data constraints, *Reg Environ Change*, <https://doi.org/10.1007/s10113-018-1384-9>
9. Abou Zaki N, Torabi Haghighi A, Rossi PM, **Xenarios S** Kløve B. (2018) An Index-Based Approach to Assess the Water Availability for Irrigated Agriculture in Sub-Saharan Africa. *Water*, 10, 896.
10. **Xenarios S**, Shenhav R, Abdullaev I, Mastellari A (2018) Water Security in Central Asia: An Overview. *Water Solutions*, Issue 2
11. **Xenarios S**, Queiroga H, Lillebø AI and Aleixo A (2108) Introducing a Regulatory Policy Framework of Bait Fishing in European Coastal Lagoons: The Case of Ria de Aveiro in Portugal. *Fishes* 3(1), 2; doi:10.3390/fishes3010002
12. **Xenarios S**, Kakumanu KR, Sekhar NU and Kallam S.R (2017) Gender differentiated impacts from weather extremes: insight from rural communities in South India, *Environmental Development*, <https://doi.org/10.1016/j.envdev.2017.05.002>
13. Alamanos A, **Xenarios S**, Mylopoulos N and Stålnacke P (2016) Hydro-economic modeling and management with limited data: the case of Lake Karla Basin, Greece, *European Water*, 54: 3-18, 2016
14. **Xenarios S**, Nemes A, Sarker GW and Nagothu US(2016) Assessing vulnerability to climate change: Are communities in flood-prone areas in Bangladesh more vulnerable than those in drought-prone areas? *Water Resources and Rural Development Journal*, Vol. 7, p.1-19
15. **Xenarios S**, Polatidis H, McCartney M and Nemes A (2015) A user-based decision framework for water storage investments in Sub-Saharan Africa: the case of Blue Nile basin in Ethiopia, *Journal of Water Economics and Policy*, Volume 01, Issue 04
16. Ranjan R, Ngai WC and **Xenarios S** (2015) Sustainability of rice production systems: an empirical evaluation to improve policy, *Environment, Development and Sustainability Journal*, DOI 10.1007/s10668-015-9638-x
17. **Xenarios S** and Polatidis H (2015) Alleviating climate change impacts in rural Bangladesh: a PROMETHEE outranking-based approach for prioritizing agricultural interventions, *Environment, Development and Sustainability Journal*, 17: 963. <https://doi.org/10.1007/s10668-014-9583-0>
18. McCartney M, Rebelo LM, **Xenarios S**, Smakhtin V (2013) Agricultural water storage in an era of Climate Change: assessing need and effectiveness in Africa. Colombo, Sri Lanka: International Water Management Institute (IWMI). 37p. (*IWMI Research Report 152*). doi:10.5337/2013.207
19. **Xenarios S** and Pavelic P (2013). Assessing and forecasting groundwater development costs in Sub-Saharan Africa, *Water SA*, Vol. 39, No. 4
20. **Xenarios S** and Bithas K (2012) The use of economic instruments for urban wastewater control: evidences from an international survey, *Journal of Environmental Policy and Governance*, Volume 22, Issue 1, Pages: 14–26
21. **Xenarios S**, Amarasinghe U, Sharma B (2011) Economic Implications of Agricultural Water Use in Eastern India, *Journal of Natural Policy Research*, 3:4, 371-39Sharma B, Amarasinghe U, Xueliang C, de Condappa D, Shah T, Mukherji A, Bharati L, Ambili G, Qureshi A, Pant D,
22. **Xenarios S**, Singh R and Smakhtin V (2010) The Indus and the Ganges: river basins under extreme pressure, *Water International*, 35: 5, 493 — 521
23. **Xenarios S** (2009) Developing an ecological - economic assessment framework for urban wastewater systems: the case of Athens and Vils wastewater systems, *Urban Water Journal* 6(2):147-167
24. **Xenarios S** and Bithas K(2009) Valuating the Receiving Waters of Urban Wastewater Systems through a Stakeholder-based Approach, *International Journal of Water Resources Development*, 25:1, 123 — 140
25. **Xenarios S** and Bithas K (2009) Welfare Improvisation from the Receiving Waters of Urban Wastewater Systems in the Context of the Water Framework Directive, *Water Resources Management*, Volume 23:981
26. **Xenarios S**, Tziritis I(2007) Improving pluralism in Multi Criteria Decision Aid approach through Focus Group technique and Content Analysis, *Journal of Ecological Economics*, 62 , 692-703
27. **Xenarios S** and Bithas K (2007) Extrapolating the benefits arising from the compliance of urban wastewater systems with the Water Framework Directive, *Desalination Journal*, 211, pp. 200–211

Peer-Reviewed Chapters in Books (last 5 years)

1. **Xenarios. S**, Laldjebaev, M., Schmidt-Vogt, D., Buurman, J., Araral, E (2021) *Powering the uplands: controversies of developing hydropower in upstream Central and Mainland South East Asia*. In: Tsani, S. and Overland, I (eds) *Handbook on the Sustainable Politics and Economics of Natural Resources*, Edward Elgar Publ. pp. 152–185, DOI:<https://doi.org/10.4337/9781789908770.00020>
2. **Xenarios. S.**, Sehring, J., Assubayeva, A., Schmidt-Vogt, D., Abdullaev, I., Araral, E. (2019) *Water Security Assessments in Central Asia: Research and Policy Implications*, Asian Development Bank Institute (ADBI) ISBN: 978-4-89974-113-8
3. **Xenarios S**, Smakhtin V, Sehring J, Schmidt-Vogt D, Tsani S, Hannah C and Michalena E (2018) *Water-Energy-Food Nexus and Environment in Central Asia*. In: S. Barchiesi, C. Carmona-Moreno, C. Dondeynaz, M. Biedler (eds) *Proceedings of the Workshop on Water-Energy-Food-Ecosystems (WEFE) and Sustainable Development Goals (SDGs)*, Publications Office of the European Union, Luxembourg, ISBN 978-92-79-99562-0, doi 10.2760/867467
4. **Xenarios S**, Shenhav R, Abdullaev I, Mastellari A (2018) *Current and Future Challenges of Water Security in Central Asia*. In: World Water Council (eds) *Global Water Security*. Water Resources Development and Management. Springer, Singapore

Working Reports (last 5 years)

1. Shenhav R, **Xenarios S**, Domullodzhanov D (2019) *The Role of Water User Associations in Improving the Water for Energy Nexus in Tajikistan*, OSCE Programme Office in Tajikistan, DOI: 10.13140/RG.2.2.27234.58564
2. **Xenarios S**, Klöve B (Ed) (2019) *Natural Hazards in Tajikistan*, OSCE Programme Office in Tajikistan, DOI: 10.13140/RG.2.2.35623.19368
3. Manandhar J, **Xenarios S**, Schmidt-Vogt D, Hergarten D and Foggin M (2017), *Climate Vulnerability and Adaptive Capacity of Mountain Societies in Central Asia*, Research Report No.1, Mountain Societies Research Institute, University Central Asia, Bishkek, Kyrgyzstan, DOI10.13140/RG.2.2.22229.32482

Reviewer in thirty-one (34) Refereed Journals (Scimago Journal & Country Rank, 2020)

Q1: Nature Sustainability, Environmental Research Letters, Science of the Total Environment, Journal of Hydrology, Global Food Security, Process Safety and Environmental Protection, Frontiers in Environmental Science, Climatic Change, Ecology and Society, Ecological Economics, Desalination Journal, Urban Water Journal, Environmental Management, International Journal of the Commons, Weather, Climate, and Society, International Journal of Water Resources Development

Q2: Water, Journal of Environmental Planning and Management, Water and Environment Journal, Water International, Sustainability, Water Policy, International Journal of Climate Change Strategies and Management, International Journal of Construction Management,

Q3: Environmental Engineering and Management, Aquatic Living Resources, Water and Climate Change, Environment, Development and Sustainability, African Journal of Agricultural Research

Q4: International Journal of Environment and Sustainable Development, International Journal of Sustainable Development, Journal of Agriculture and Rural Development in the Tropics and Subtropics

Scientific Editing

Editorial Board Member in [Word Development Sustainability](#) (March 2021- present)

Editorial Board Member in [International Journal of Water Resources Development](#) (December 2020- present)

Editorial Board Member in [Hydrology Research](#) Journal (November 2019- present)

Editor in the [Central Asian Journal of Water Research](#) (10/2017- present)

Teaching Experience

- 09/18-Present Teaching in the Master of Public Administration the courses “Economic Applications for Public Managers”, “Environmental Economics”, “Water Resources Policy and Management”, “Natural Resources Policy and Management”, “Sustainable Policy and Development” Graduate School of Public Policy, Nazarbayev University, Kazakhstan
- 01/20-06/20 Teaching in Lee Kuan Yew School of Public Policy the course “Sustainable Development for Public Policies”, National University of Singapore
- 03/06-04/06 Teaching in the MSc “Environmental Management of Protected Areas” for the module “Environmental economics and management”, Dpt. of Environmental and Natural Resources Management, University of Patras, Greece

Supervising Committee of the following master and doctorate theses:

- Ardak Nasir, *Valuation of Ecosystem Goods and Services in River Basin Systems of Kazakhstan*, PhD Thesis, Nazarbayev University, Main Supervisor (2020-present)
- Samal Bekmaganbetova, Svetlana Parfenova and Nursultan Aliyev, *Water Affordability in Astana*, Master Thesis, Main Supervisor (February-October 2022)
- Akzhol Urazalin, Anara Zhardem, and Marzhan Nazibekova, *Willingness to Pay for Drinking Water*, Master Thesis, Main Supervisor (February-October 2022)
- Nurzhan Alikhanov and Aruna Sabyr, *Wind Power and Development Scenarios in Kazakhstan*, Main Supervisor (October 2020- May 2021)
- Masood Ahmed, Foreign Aid, Institutions, *Water Performance and Water Governance*, PhD Thesis, National University of Singapore, External Supervisor (June 2020)
- Olzhas Alshagirov, *River Basin Management in Kazakhstan: the case of Aspara transboundary river*, Master Thesis, Nazarbayev University, Main Supervisor (February-October 2019)
- Dosbol Zharylgassov, *Assessment of Renewable Energy Scenarios in Kazakhstan*, Master Thesis, Nazarbayev University, Main Supervisor (February-October 2019)
- Aliya Assubayeva, *Development of Water Security Index in Central Asia*, PhD Thesis, Nazarbayev University, Main Supervisor (2018-2022)
- Aggelos Alamanos, *Hydro-Economic modeling of Lake Karla in Central Greece*, University of Thessaly, PhD Thesis, Co-Supervising with Prof. N. Mylopoulos (completed 2018)
- Roula Kyriazi, *Application of Multi Criteria Analysis and Geographical Information Systems for the designing of marine reserves*, University of Patras, Master Thesis, Co-Supervisor (completed 2007)
- Lina Nouska, *Valuation of ecological goods and services in Mediterranean forests*, University of Patras, Master Thesis, Co-Supervisor (completed 2006)

Membership in Professional Societies

- Committee Member on the Specialist Group of Statistics and Economics in International Water Association (IWA) (2014- present)
- European Association of Environmental and Resource Economists (EAERE) (2016-present)

Continuous Professional Development (selected)

- “Leadership Development Programme” Advance HE, 25 February - 1 March, 2019 Astana, Kazakhstan
- “Applied economic modeling of environmental issues using GAMS”, Department of Forest Economics, 2-6 March 2015, SLU-Umea, Sweden”
- “Capacity Development for Farm Management Practices to Improve Crop-Water Productivity using AquaCrop Model”, 8-12 October 2012, Bangladesh Rice Research Institute, Gazipur, Bangladesh

Computer Skills

GAMS 24.2.3, AQUACROP 4.0, STATISTICA 10, ECOPATH 6.4, LIMESURVEY 1.92,

Languages

English (Proficient), Greek (Native Language), Norwegian (Basic), Russian (Basic)