Curriculum vitae di Davide Geneletti

Sottosettori ERC primari (max 3):

- SH7_5 Sustainability sciences, environment and resources, ecosystem services;
- SH7_7 Cities; urban, regional and rural studies;
- SH7_8 Land use and planning

PERSONAL DETAILS

Family name, First name: Geneletti, Davide

Date of Birth: September 28, 1972

Researcher unique identifier(s):

- WoS: https://www.webofscience.com/wos/author/record/D-5266-2014
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URL for web site: My Lab: https://planes.dicam.unitn.it/

- **Education and key qualifications**

03/09/2002	PhD Thesis title: Ecological evaluation for Environmental Impact Assessment, Vrije Universiteit Amsterdam, The Netherlands
1999	Post-graduate Certificate in Digital Image Processing of Remotely Sensed Data International Institute for Aerospace Survey and Earth Sciences (ITC), The Netherlands
1997	MSc in Environmental Sciences (*cum laude*) Università di Milano, Italy

- **Current position**

2021 – to date	Full Professor Department of Civil, Environmental and Mechanical Engineering, University of Trento, Italy
2014- to date	Adjunct professor of Spatial Planning/Environmental Impact Assessment Free University of Bozen, Italy

- **Previous positions**

2014 -2021	Associate professor Department of Civil, Environmental and Mechanical Engineering, University of Trento, Italy
2010-2011	Mid-career Research Fellow in Sustainability Science Sustainability Science Programme, Harvard University, USA
2006-2014	Assistant Professor, Faculty of Engineering, University of Trento

RESEARCH ACHIEVEMENTS AND PEER RECOGNITION

Research achievements

My research activity has a strong interdisciplinary component, bridging spatial and urban planning, ecosystem service science, and decision support. Since its inception, I have been listed in the Stanford-Elsevier database of Highly Cited Researchers (top 2% worldwide). Currently, I rank 26th globally in the subject field of "Urban and Regional Planning."

In the first stage of my career, I focused on the theory and practice of Environmental Impact Assessment (EIA), and particularly on how to better account for ecological issues and to conduct more systematic and transparent decision-making processes. I pioneered the use of spatial multicriteria analysis to support EIA, and environmental decision-making more broadly. This led to several influential publications that appeared in leading journals in the field. Among these:

- Geneletti, D., Dawa, D. (2009). Environmental impact assessment of mountain tourism in developing regions. Environmental Impact Assessment Review 29, 229-242. https://doi.org/10.1016/j.eiar.2009.01.003 (over 350 citations). I led the conceptualization and execution of this study, which tested the development of spatial decision support systems to assess the environmental effects of tourism activities;
- Geneletti, D (2019). Multicriteria analysis for environmental decision-making. Anthem Press. This book provides a theoretical framework to apply multicriteria analysis, and demonstrates its application to a number of case studies for different sectors and at different scales.

Later in my career, I focused on the use of ecosystem services knowledge to support spatial planning and associated Strategic Environmental Assessment (SEA) processes. I explored this area, both conceptually and through case studies, leading to the development of a conceptual approach to conduct ecosystem services-inclusive SEA processes. This resulted in influential publications focused on both aspects, such as:

- Geneletti, D. (2011) Reasons and options for integrating ecosystem services in strategic environmental assessment of spatial planning. International Journal of Biodiversity Science, Ecosystem Services & Management 7(3), 143-149. https://doi.org/10.1080/21513732.2011.617711 (ranked in the top five most-cited papers of the Journal).
- Geneletti, D (2013). Assessing the impact of alternative land-use zoning policies on future ecosystem services. Environmental Impact Assessment Review 40, 25-35. https://doi.org/10.1016/j.eiar.2012.12.003.

The knowledge developed in this area was summarized also in the first special issue in an international scientific journal dedicated to the integration of ecosystem in EIA and SEA, which I guest edited (Geneletti, D., 2013. Editorial: Ecosystem services in Environmental Impact Assessment and Strategic Environmental Assessment. EIAR 40, 1-2), and in the "Handbook on Biodiversity and Ecosystem Services in Impact Assessment", which I solo-edited for Edward Elgar Publishing.

This research work attracted the attention of the United Nations Environment Programme, which invited me to write a guidance document. The Guidance, published in English, Spanish and French, was widely circulated especially within UN agencies and adopted in the framework of development programmes:

- Geneletti, 2014. Integrating ecosystem services in strategic environmental assessment: a guide for practitioners. UNEP, Nairobi, Kenya, 68 pp.

More recently, I directed my research focus on urban areas, and investigated ways to include the ecosystem services approach in urban planning, and to foster the implementation of and Nature-based Solutions (NbS). I contributed to research advancements in this field, by developing innovative approaches, where biophysical and socio-economic analyses of ecosystem services were combined with planning and governance frameworks. This activity has been mostly conducted in collaborations with networks of scientists and in the framework of EU-funded research projects. Highlights include:

- Raymond, C. M., Frantzeskaki, N., Kabisch, N., Berry, P., Breil, M., Nita, M. R., Geneletti, D & Calfapietra, C. (2017). A framework for assessing and implementing the co-benefits of

nature-based solutions in urban areas. Environmental Science & Policy, 77, 15-24. https://doi.org/10.1016/j.envsci.2017.07.008 (over 1,200 citations). The paper developed a framework for assessing nature-based solutions that, besides the scientific impact, has been influential at the policy level and paved the way for subsequent guidance documents produced by the European Commission.

- Geneletti, D., & Zardo, L. (2016). Ecosystem-based adaptation in cities: An analysis of European urban climate adaptation plans. Land Use Policy, 50, 38–47. https://doi.org/10.1016/j.landusepol.2015.09.003 (over 300 citations).
- Cortinovis, C., & Geneletti, D. (2020). A performance-based planning approach integrating supply and demand of urban ecosystem services. Landscape and Urban Planning, 201. https://doi.org/10.1016/j.landurbplan.2020.103842 (180 citations). This work, which I co-led with a post-doc fellow, proposes an innovative approach to integrate ecosystem services in urban planning, and has been published on a leading planning journal.
- Almenar, J. B., Elliot, T., Rugani, B., Philippe, B., Gutierrez, T. N., Sonnemann, G., & Geneletti, D. (2021) Nexus between nature-based solutions, ecosystem services and urban challenges. Land Use Policy, 100, 104898. https://doi.org/10.1016/j.landusepol.2020.104898. This paper, led by a PhD student that I supervised, attracted a very high number of citations (over 350) in a relatively short time frame.
- Serving as Principal Investigator (PI) for my institution in the European Commission-funded Research and Innovation project SELINA (Science for Evidence-based and sustainable Decisions about Natural capital, 2022-2027). In this project, I lead the work package focused on developing Demonstration Cases to promote the uptake of biodiversity and ecosystem service evidence in policy and planning processes. The project, still on-going, is bound to deliver substantial scientific impact, as well as contributions to key EU policies, including Nature Restoration Regulations and the Biodiversity Strategy to 2030;

Part of my research has been directed to activities at the policy-science interface, which I believe is an area of particular relevance for the future activities of the Italian Academy of Science and Technology. Contributions in this area include:

- Serving as Coordinating Lead Author in the "Spatial planning and connectivity assessment" of the The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)
- Serving as an expert in two knowledge synthesis exercises managed by the EKLIPSE Mechanism (https://eklipse.eu/). These exercises, focused on nature-based solutions and the mitigation hierarchy for ecosystem services, addressed specific biodiversity-related requests from governments and institutions. Established in 2016, EKLIPSE synthesizes the best available knowledge to support better-informed decision-making on biodiversity and ecosystem services across Europe.
- Acting as Principal Investigator (PI) for my institution, and as a member of the steering committee, in the European Commission-funded project BioAgora (https://bioagora.eu/). This project aims to develop a fair and functional "Science Service for Biodiversity," orchestrating processes and initiatives at the policy-science interface at the European level.

In addition to these roles, I have conducted several knowledge synthesis and assessment exercises on topics related to my field of expertise, employing methods such as systematic literature reviews, analyses of planning and policy documents, Delphi surveys, and expert knowledge elicitation techniques. Key recent outcomes include:

- Cortinovis, C. and Geneletti, D., 2018. Ecosystem services in urban plans: What is there, and what is still needed for better decisions. Land Use Policy, 70, pp.298-312. https://doi.org/10.1016/j.landusepol.2017.10.017 (over 400 citations, I designed, supervised and co-wrote the study)
- Kato-Huerta, J., & Geneletti, D. (2022). Environmental justice implications of nature-based solutions in urban areas: A systematic review of approaches, indicators, and outcomes. Environmental Science & Policy, 138, 122-133. https://doi.org/10.1016/j.envsci.2022.07.034 (60 citations, I designed, supervised and co-wrote the study). He study adopts the lenses of environmental justice to assess how green spaces are planned and used in cities.

Peer recognition

The international recognition of my research activity is reflected by appointments at top universities worldwide, including Harvard University (Mid-career Research Fellow in the Sustainability Science Program), Stanford University (Visiting Scholar at the Woods Institute for the Environment), and Cambridge University (Visiting Scientist at the Department of Geography, eventually suspended due to COVID-19). In addition, I received grants from five research institutions in Australia (Murdoch University), Asia (International Islamic University of Malaysia), Latin America (Pontificia Universidad Catolica de Chile; Universidad Catolica de Temuco) and Europe (Finnish Environment Institute) to support visiting periods, ranging from one to six months.

In 2021, I received the Friedrich Wilhelm Bessel Research Award by the Alexander von Humboldt Foundation in recognition of outstanding accomplishments in research in the field of environmental planning. This Award is given annually to internationally renowned academics from outside Germany by an independent body, which adopts the following selection criteria:

- An excellent research record with scientific achievements that have already influenced the nominee's field;
- Reasonable prospects for producing outstanding achievements with an impact that extends beyond the nominee's immediate field of work.

Other recent academic awards include:

- "City Innovative Thinker Award", conferred by Massachusetts Institute of Technology (MIT) Pandemic Response CoLab in collaboration with The Nature of Cities in the framework of the Post-COVID-19 Challenge, as the author of a project titled "Renaturing marginal public spaces for people and ecosystems" (2021);
- Best paper award, Sustainability Science journal conferred to the paper "Scanning the solutions for the sustainable supply of forest ecosystem services in Europe" (2023)
- "José María Sarriegi Major Catastrophe Research Award", as a co-author of a scientific paper on climate adaptation planning, Fundación Aon España, (2019)

I have delivered approximately 50 keynotes and invited presentations at national and international scientific events. Some of the most significant among them include:

- Keynote Speaker at the 1st International Electronic Conference on Land: Towards Land Systems Science. Title: Upscaling nature-based solutions in cities: An urban planning perspective (2022)
- Keynote Speaker at the International scientific workshop "Urban Natures? Describing, practising developing", University of Paris-Est, Paris. Title: Nature-based solutions in urban planning: Challenges and opportunities (2021)
- Key note lecture at the symposium "Sustainability in Israel: 21st century challenges", University of Haifa. Title: Ecosystem services for sustainable urban development: A spatial planning perspective. (2019)
- Invited presentation at "EU High-level Conference Green Cities for a Greener future", European Commission. Title: "Nature in the city", Brussels (2018).
- Invited presentation at the Sustainability Science Symposium, Harvard Kennedy School, Harvard University, Cambridge, MA, USA. Title: What are the principal tradeoffs between human well-being and the natural environment? (2016).

ADDITIONAL INFORMATION

Other contributions to the research community

This section summarises my key contributions as an expert in my field, offering scientific advice to a range of organisations across international, national, and local levels.

Internationally, I served as advisor and "resource person" for the United Nations Environment Programme (to advise on the integration of ecosystem service in strategic planning) and for the World Health Organisation (to advise on the integration of health issues into Strategic Environmental Assessment). I was the lead author of manuals and handbooks on Strategic Environmental Assessment for both the United Nations Environment Programme (UNEP) and the United Nations Human Settlements Programme (UN-Habitat).

I have been a Member of the Steering Committee of the Ecosystem Services Partnership (since 2014), the worldwide leading network in the field, connecting researchers, policy-makers and practitioners.

At the EU level, I served in Task forces and Advisory groups of several initiatives (e.g., the Expert Working Group on Nature-based Solutions to Promote Climate Resilience in Urban Areas, 2016) and I have been a member of the International Advisory Board of six research projects funded by the European Commission.

I served as a Panel Member for the evaluation of European Research Council (ERC) Grants in the former Panel "SH2" (Institutions, Values, Environment, Space) in 2020, and in Panel "SH7" (Human mobility, Environment, Space) in 2022, 2024 and I have been appointed for 2026.

Similar responsibilities at the national level include:

- Member of the Scientific Committee of the annual report "*Consumo di suolo, dinamiche territoriali e servizi ecosistemici*" (ISPRA-SNPA)
- Member of the Scientific Committee of the Italian Chapter of the International Association for Impact Assessment
- Member of the Scientific Committee of the Italian Report on Land Take (*Centro di Ricerca sui Consumi di Suolo*).

Finally, at the regional and local level, I served as:

- Member of the Scientific Committee of the Dolomiti UNESCO Foundation (2025-)
- Member of the Scientific Committee for Protected Areas, Autonomous Province of Trento, (2017-2024). The committee advises the provincial government on issues related to the management of parks and protected areas;
- Member of the Environmental Impact Assessment Committee, Autonomous Province of Trento (2012-2015). The committee advises the provincial government on all on-going EIA procedures.