



Jarumi Kato-Huerta

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📍 Work: Via Mesiano 77 Planning for Ecosystem Services and Urban Sustainability Lab , 38122 Trento (Italy)

WORK EXPERIENCE

University research assistant

University of Trento [25/08/2022 – Current]

Country: Italy

Website: <https://project-selina.eu/>

Assistance and support on the European Commission *Horizon Europe research and innovation* project **SELINA - Science for Evidence-Based and Sustainable Decisions about Natural Capital under Grant agreement No 101060415**.

1. Deputy lead in the coordination activities of Work Package 8, which aims to develop case studies to support ecosystem services knowledge in evidence-based public decision-making processes

University teaching assistant

University of Trento [01/10/2022 – Current]

City: Trento

Country: Italy

Within the Master's program of *Territorial and Environmental Engineering* at the Department of Civil, Environmental and Mechanical Engineering, I am currently a teaching assistant for the course "Nature-based solutions for urban sustainability", which focuses on:

1. Understand contemporary sustainability issues in urban areas and the role that nature can play for more livable, resilient and healthier cities;
2. Analyze the supply and demand of ecosystem services provided by urban green and blue spaces by applying suitable mapping and assessment methods;
3. Understand the main typologies of nature-based solutions and the key principles for effective and context-specific planning, design and implementation;
4. Assess the environmental and socio-economic impacts of nature-based solutions through quantitative and qualitative indicators;
5. Critically review and discuss current thinking and experiences in cities and landscapes in Europe and around the world.

Doctoral Researcher

University of Trento [01/11/2018 – 12/07/2022]

Country: Italy

Website: <https://planes.dicam.unitn.it/>

Name of unit or department: Department of Civil, Environmental and Mechanical Engineering

- Researched the integration of environmental justice in Latin American Urban Climate Actions plans by applying quantitative and qualitative content analysis
- Prepared a Nature-based solutions planning exercise in Las Palmas de Gran Canaria based on the distributive environmental justice index results and ecosystem services assessment
- Developed a composite Distributive Environmental Justice Index (DEJI) to assess spatial environmental justice conditions. This indicator was further applied in the insular city of Las Palmas de Gran Canaria (Spain).

- Performed mapping and assessment of ecosystems and their services to analyse their supply and demand patterns in an insular context as part of the project **MOVE-ON (From case studies to anchor projects-setting the ground to advance MAES in Europe's overseas) with Grant Agreement No. 07.027735/2019/808239/SUB/ENV.D2**
- Organised and conducted participatory workshops and online seminars for the **MOVE project (MOVE: Facilitating MAES to support regional policy in overseas Europe: mobilising resources and pooling stakeholders.) with Grant Agreement No. 07.027735/2018/776517/SUB/ENV.D2**
- Reviewed the state of the art on environmental justice and urban Nature-based solutions in specialised scientific literature.

University research assistant

Metropolitan Autonomous University [01/2015 – 10/2015]

Country: Mexico

Name of unit or department: Department of Environmental Management

- Conducted qualitative assessments methods for the economic valuation of ecosystem services from Natural Protected Areas in arid zones
- Prepared landscape assessments to report on the visual quality in the Natural Protected Area *El Charco del Ingenio*
- Conducted an Environmental Impact Assessment at the regional level to determine the impact of the modernization of the road *Apaxtla de Castrejón-Técpán de Galeana* along the stretch *El Caracol-Ylacotepec*.
- Conducted an EIA at the regional level to determine the environmental impact of the project *Hacienda el Marqués* in the town of *El Marqués*, State of Querétaro, Mexico.
- Responsible for the use of Geographic Information System (GIS) to support the assessment tasks through the spatial analysis of geometries.

University research assistant

Metropolitan Autonomous University [06/2014]

Country: Mexico

Name of unit or department: Department of Ecology

- Responsible for data quality, control and safety during fieldwork activities for the census of the specie *Carnagea gigantea* in the Biosphere Reserve El Pinacate y el Gran Desierto de Altar in Sonora, Mexico. This research was carried out as part of the project "Ecology and exploitation of vegetal resources in the semiarid zones of Mexico"

EDUCATION AND TRAINING

PhD in Civil, Environmental and Mechanical Engineering

Department of Civil, Environmental and Mechanical Engineering, University of Trento [01/2018 – 12/07/2022]

City: Trento

Country: Italy

Thesis: Concept and methods for integrating Environmental Justice and Nature-based solutions in cities

MSc in Ecosystem Services

School of Geosciences, University of Edinburgh [09/2016 – 08/2017]

City: Edinburgh

Country: United Kingdom

Thesis: Social Inclusion in Payment for Ecosystem Services in Mexico. Is it possible and should we do it?

BSc In Biology

Department of Environmental Management, Metropolitan Autonomous University [09/2011 – 06/2015]

City: Mexico City

Country: Mexico

Thesis: Valuation of ecosystem services and environmental externalities in the town of San Miguel de Allende, México

LANGUAGE SKILLS

Mother tongue(s): **Spanish**

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

Italian

LISTENING C1 READING C1 WRITING B2

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Microsoft Office: proficient user of Word, Excel and Powerpoint

Graphic enhancement

Adobe Illustrator / Basic AutoCAD

GIS

QGIS / ArcGis / GRASS GIS

Statistics

R Coding / Basic Matlab

Qualitative data analysis

Analytical software (MaxQDA, NVivo, UCINET, SPSS)

PUBLICATIONS

Peer-reviewed research articles

[2022]

Kato-Huerta J. & Geneletti, D. (2023). Analysing the treatment of environmental justice and nature-based solutions in the Urban Climate Action Plans of Latin American metropolitan areas. *Local Environment*. <https://doi.org/10.1080/13549839.2023.2221431>

Kato-Huerta J. & Geneletti, D. (2023). Environmental justice implications of Nature-based solutions in cities: a systematic review of approaches, indicators, and outcomes. *Environmental Science & Policy*. Part of the special issue *Design, Plan and Govern Just Cities within Nature-based solutions*. <https://doi.org/10.1016/j.envsci.2022.07.034>

Kato-Huerta J. & Geneletti, D. (2022). A distributive environmental justice index to support green space planning in cities. *Landscape and Urban Planning*. <https://doi.org/10.1016/j.landurbplan.2022.104592>

Sieber M. I., Montero-Hidalgo M., Kato-Huerta J., Rendon P., Santons-Martín F., Geneletti D., Gil A., Trégarot E., Lagabrielle E., Parelho C., Vergílio M., van Beukering P., Bayley D., Arbelo M., Casas E., Duijdam S., Cillaureen E., David G., Dourdain A., Haroun R., Martín-García L., Otero-Ferrer F., Palacios-Nieto E., Pelembe T., Marechál J., Burkhard B. Mapping and assessing ecosystem services in Europe overseas: A comparative analysis of MOVE case studies. *OneEcosystem*. <https://doi.org/10.3897/oneeco.7.e87179>

Book chapters

[2022]

Geneletti, D., Cortinovia, C., Orta-Ortiz, M. S., Kato-Huerta J., Longato, D., Falco, E. Mainstreaming Nature-based Solutions in cities through performance-based planning: A case study in Trento, Italy in Mahmoud I. H., Morello E.,

Scientific Reports

[2022]

Geneletti, D., Cortinovis, C., Orta-Ortiz, M. S., [Kato-Huerta, J.](#), Longato, D., Falco, E. Promuovere soluzioni basate sulla natura nelle città attraverso la pianificazione prestazionale: un caso di studio in Arcidiacono, A., Di Simine, D., Ronchi, S., Salata, S. (a cura di), pianificazione prestazionale: un caso di studio". In: Arcidiacono, A., Di Simine, D., Ronchi, S., Salata, S. (Eds.) *SUOLO, SERVIZI ECOSISTEMICI E INFRASTRUTTURE VERDI: Metodi, ricerche e progetti innovativi per incrementare il Capitale naturale e migliorare la resilienza urbana.*, Roma: INU Edizioni - ISBN: 978-88-7603-233-2

Conference Proceedings

[2021]

Tomaskinova, J.; Geneletti, D.; Grace, M.; Dicks, L. V.; Collier, M.; Sapundzhieva, A.; Stoev, P.; Alcantara Valero, A. F.; Longato, D.; [Kato-Huerta, J.](#); Orta-Ortiz, M. S.; De Santis, L.; Balzan, M. V., ReNaturing Malta: Developing a capacity-building strategy for the mainstreaming of Nature-Based solutions in *EDULEARN21: 13th International Conference on Education and New Learning Technologies: Conference Proceedings*, Valencia: IATED, 2021, p. 8975-8984. - (EDULEARN PROCEEDINGS). - ISBN: 978-84-09-31267-2. Atti di: EDULEARN21, Online, 5th-6th July 2021.

NETWORKS AND MEMBERSHIPS

Equity in Ecosystem Services research

[08/2021 – Current]

Member of the thematic group *Equity in Ecosystem Services research* (TWG20) of the Ecosystem Services Partnership

HONOURS AND AWARDS

Study grant for doctoral students

University of Trento [2020]

Study grant for doctoral students not entitled to doctoral grant and enrolled on the Doctoral School in Civil, Environmental and Mechanical Engineering for working on research and capacity-building activities in the projects *MOVE (Facilitating MAES to support regional policy in overseas Europe: mobilising resources and pooling stakeholders)* and *MOVE-ON (From case studies to anchor projects- setting the ground to advance MAES in Europe's overseas)*.

MSc degree in Ecosystem Services obtained with Merit

University of Edinburgh [11/2017]

Second class honours upper division (2.1)

Scholarship for Master's or PhD studies

Mexican National Council of Science and Technology (CONACyT) [01/2016]

Complementary Scholarship for Postgraduate studies

Secretary of Public Education (Mexico) [01/2016]

Academic Merit Medal

Metropolitan Autonomous University [10/2015]

best GPA of the 2011-2015 cohort in the Bachelor of Science in Biology

Academic excellence scholarship

Secretary of Public Education (Mexico) [06/2014]

ORGANISATIONAL SKILLS

Chair and moderator at International Scientific Events

Co-chair at Session 08b: *Applications of ecosystem services assessments in different contexts* of the Ecosystem Services Partnership 3rd European Conference *Ecosystem Services, Science, Policy and Practice in the face of Global Changes*, Tartu, Estonia, 7-10 June 2021

CONFERENCES AND SEMINARS

Application of a Distributive Environmental Justice Index for urban Nature-based solutions planning

[14/06/2022 – 17/06/2022]

Alternet Conference: *Transformative Changes for Biodiversity and Health*, Ghent, Belgium

Le soluzioni basate sulla Natura come strumento di adattamento ai cambiamenti climatici

[09/2021]

All4Climate event *Soluzioni basate sulla Natura per l'adattamento ai cambiamenti climatici*. Associazione Culturale e Ambientalista Nour / Università di Verona, Verona, Italia

Developing an Environmental Justice Index in urban areas to prioritise the implementation of Nature-based solutions: the case study of Las Palmas de Gran Canaria

[07/2021]

3rd Sure World Conference *Cities as Social-ecological systems*, Society of Urban Ecology, Póznán, Poland, 7-9 July 2021

A spatial environmental justice index to prioritise the implementation of nature-based solutions in cities

[06/2021]

Ecosystem Services Partnership 3rd European Conference *Ecosystem Services, Science, Policy and Practice in the face of Global Changes*, Tartu, Estonia, 7-10 June 2021

La justicia Ambiental y los servicios ecosistémicos como factores de planificación para las Soluciones Basadas en la Naturaleza en áreas urbanas

[27/10/2020]

Regional Conference of the Ecosystem Services Partnership in Latin America and the Caribbean *Trascendiendo el estudio de los Servicios Ecosistémicos hacia la Transdisciplina e Incidencia*, Mexico City, Mexico

Nature-based solutions and Environmental justice

[07/02/2020]

ReNature Training Course *Nature-based solutions in urban planning*, University of Trento, Italy

Environmental justice and nature-based solutions in cities: A conceptual framework

[10/2019]

Ecosystem Services Partnership 10th World Conference (ESP 10) session *Advancing urban ecosystem service assessments for more inclusive and just cities*.

Drugs and violence in times of sustainability: the socio-environmental conflict of drug trafficking in Latin America

[10/2018]

Third Latin-American Congress of socioenvironmental conflicts. The University of Veracruz. General Direction of Biological and Agricultural Sciences. Veracruz, Mexico.

Landscape assessment in the Natural Protected Area "El Charco del Ingenio

[11/2016]

First International Congress of Natural Protected Areas, organised by the National Commission of Natural Protected Areas (CONANP), Mexico City

COURSES AND WORKSHOPS

Planning Nature-based Solutions in Cities

[03/2021]

ReNature Interdisciplinary Training School, Institute of Applied Sciences, Malta College of Arts, Science & Technology

Agent-Based Modeling for Geographical Applications

[09/2019]

University of Trento

ThinkNature Summer School "Nature-based solutions: From theory to practice"

[02/09/2019 – 06/09/2019]

The Technical University of Crete. Chania, Greece

AESOP PhD workshop "Planning for Transition"

[06/2019]

University of Ferrara, Italy

The environmental dimension in the design and execution of public policies

[08/2018]

176 credit hours. National Autonomous University of Mexico (UNAM). Faculty of Science

Introduction to Theoretical Ecology

[06/2018]

36 credit hours. Massachusetts Institute of Technology (MIT) - National Autonomous University of Mexico (UNAM). Institute of Ecology, UNAM. Mexico City.

Integrating Ecosystem Services into Development Planning.

[04/2016]

36 credit hours. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) - Metropolitan Autonomous University, Azcapotzalco, Mexico City

TEACHING ACTIVITIES

Supporting teaching activities under European Commission Projects

Provided assistance and training to students as part of the capacity-building activities of the **ReNature Project: Grant No. 809988**, for the following events:

ReNature Training III: Nature-based solutions in urban planning (6-7 February 2020, Trento, Italy).

- Provided frontal lessons in the scope of the training activities, including a presentation on the topic of environmental justice for Nature-based solutions planning
- Assisted students and early career researchers in the preparation of a case study on Nature-based solutions implementation in the urban core of the city of Trento (Italy)

- Provided methodological guidance on the process of mapping and assessment of urban ecosystem services
- Assisted students and provided feedback on preparing a final presentation to summarise the topics of the course.

ReNature Training School on Nature-based solutions and the science-policy interface (15-18 March 2021, virtual event)

- Provided methodological support to students for a case study preparation on stakeholder engagement and Nature-based solutions planning in the city of Valetta (Malta)
- Assisted students and provided feedback on preparing a final presentation to summarise the topics of the course.

Provided assistance and training to students as part of the capacity-building activities of the **MOVE-ON project Grant No. .07.027735/2018/776517/SUB/ENV.D2**, for the following events:

Online Training Event for La Réunion Anchor Project (20 September 2021)

- Provided methodological support to Reunion Island stakeholders and members of the MOVE-ON Consortium on two methodologies for mapping and assessing ecosystem services: participatory GIS and participatory scenario planning.

International teaching activities

[12/2017 – 09/2018]

Invited lecturer at the *Environmental Management* class, part of the study programme of the Bachelor's Degree in Biology for the trimester 17-I (winter period) of the Metropolitan Autonomous University of Mexico to cover topics such as ecosystem services, market-based conservation mechanisms, economic valuation of ecosystem services, and payment for Ecosystem Services in forest areas of Mexico
