



PhD in SCIENCE, TECHNOLOGY AND POLICY FOR SUSTAINABLE CHANGE - 40th cycle

INTERDISCIPLINARY Research Field: GREEN SPACES AND THE IMPROVEMENT OF HUMAN HEALTH IN CITIES: UNDERSTANDING POLICY IMPLICATIONS IN URBAN FRAGILE CONTEXTS

Monthly net income of PhDscholarship (max 36 months)

€ 1400.0

In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity

Motivation and objectives of the research in this field

Interdisciplinary PhD Grant

The PhD research will be carried out in collaboration with research groups of the PhD programme in "**URBAN PLANNING, DESIGN, AND POLICY**".

See <https://www.dottorato.polimi.it/?id=422&L=1> for further information.

In recent decades, cities have grown disproportionately on a planetary scale, resulting in an ever-increasing demand for resources and land to nourish and house the urban population. The loss of the services provided by plants, though, is affecting human well-being and citizens' health in an increasingly conspicuous (and unsustainable) manner. To mitigate that, future planning scenarios must include nature-based solutions aimed at restoring at least the essential services provided by forests, trees and other green elements. Although small in size, urban forests can form strong and flexible networks within and between cities that bring environmental, social and economic benefits to cities. Accounting for future urban development and climate change mitigation, this PhD research aims at analyzing urban forestry and guiding implementation plans in relation to health and wellbeing. More precisely, the PhD research will focus on the following major axes:

a) analysis of the administrations that are developing urban forestry projects to improve citizens' health and their challenges towards an implementation of these



	<p>processes; b) scouting, collection and mapping of the data they use to guide novel urbanization plans and to assess the health effects of such projects; and (c) development of new tools to support integrated environmental (urban forestation) and human (health benefit) health design.</p>
<p>Methods and techniques that will be developed and used to carry out the research</p>	<p>The research will develop an interdisciplinary methodological approach integrating knowledge from different disciplines, along various actions and with the use of different tools, including:</p> <ul style="list-style-type: none"> •data gathering about urban plans, urban forest composition (e.g, tree species and status), and health/wellness of citizens. This work will be performed through desktop research (i.e. database queries and literature review) and interviews to relevant stakeholders •mapping and geospatial analysis of implemented urban forestry projects in relation to health indicators •focus on particularly relevant case studies that allow an innovative integration of the urban, ecological and human health layers; •an action-research approach, implying field work and quali-quantitative assessments on selected cases, supporting the interaction with potential recipients and beneficiaries of the research.
<p>Educational objectives</p>	<p>The program aims at providing analytical and interpretative tools, as well as research/planning/design methodologies, able to produce further understanding and quantitative analyses on how green spaces may help to improve health of both the citizens and other species inhabiting the urban environments.</p>
<p>Job opportunities</p>	<p>According to the educational objectives and its international orientation, the PhD program trains highly qualified researchers and professionals in the fields of spatial planning and environmental assessment, design</p>



	and management of green and blue infrastructures projects, and developing scenarios of integration between the health of humans and of plants and other inhabitants of green areas. Once finishing the PhD, the candidate will have a profile that may be employed not only by Italian and international academic institutions, public bodies and research centres, but also by public and private development agencies, and other private firms caring about environmental and human health.
Composition of the research group	2 Full Professors 1 Associated Professors 4 Assistant Professors 8 PhD Students
Name of the research directors	R. Casagrandi; M. C. Pastore; V. Fedeli

Contacts

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Additional support - Financial aid per PhD student per year (gross amount)

Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad

Amount monthly	700.0 €
By number of months	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

There are various forms of financial aid both for research and teaching activities. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.