



PhD in SCIENCE, TECHNOLOGY AND POLICY FOR SUSTAINABLE CHANGE - 38th cycle

PARTENARIATO PNRR Research Field: PLANNING URBAN FORESTRY. POTENTIAL AND CHALLENGES IN THE RELATION BETWEEN NATURE AND CITIES IN THE CONTEXT OF CLIMATE CHANGE

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

Cities, growing astonishingly fast in the last three centuries, result in a need for resources and soil to nourish and house the growth of urban populations. In the face of nature exploitation, future scenarios shall embrace the use of processes fostered through Nature Based Solutions, emphasizing services provided by forests, trees, and other green elements.

Trees, group of trees, small woodlands, and urban forests may constitute a simultaneously strong and flexible network in and among cities. Planting and caring for trees are structural and functional options for the city intended as an integrated living system.

The PhD research and investigation will focus on the potential roles and practices of urban forestry in relation to the development of the urban environment and to the mitigation of the effects of climate change. This is particularly relevant in those spaces that are vacant and open to change in their use, some of them of consistent dimensions, where nature grows spontaneously, and that communities are usually not able to access, live and transform. The PhD research project is expected to develop: a) a critical overview of the trends and developments of urban forestry as a tool to tackle climate change and provide new green systems in the urban environment b) a critical analysis and evaluation of a



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| | <p>number of projects recently developed c) an international overview and critical analysis on the perspective engagement of public actors in the provision of urban forestry and projects d) a perspective vision on the challenges and priorities of the design and development of future strategies in order to enhance urban forestry in policies for the implementation of green strategies in the framework of climate change.</p> |
| <p>Methods and techniques that will be developed and used to carry out the research</p> | <p>The research will develop a mixed method approach integrating different actions and methods:</p> <ul style="list-style-type: none"> - analysis of indicators, maps of the involved actors, cases studies analysis; - quantitative analysis of funding schemes and management approaches; - qualitative analysis and representation of implemented urban forestry projects in the perspective of the citizens. - an action-research approach, implying field work and qualitative research on selected cases and contexts and supporting the interaction with potential recipient 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 advancement in the urban forestry sector in relation to the changing climate conditions of 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 and management of green and blue infrastructures projects, and urban governance. Researchers with such profile may be employed by Italian and international academic institutions, public bodies and research centres, public and private development agencies, and other private firms.</p> |



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| Composition of the research group | 5 Full Professors 5 Associated Professors 18 Assistant Professors 10 PhD Students |
| Name of the research directors | Prof. Maria Chiara Pastore |

| Contacts | |
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| PASTORE MARIA CHIARA DIPARTIMENTO DI ARCHITETTURA E STUDI URBANI (DASTU) mariachiara.pastore@polimi.it Tel. (022399)5535 | |

| Additional support - Financial aid per PhD student per year (gross amount) | |
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| Housing - Foreign Students | -- |
| Housing - Out-of-town residents (more than 80Km out of Milano) | -- |

| Scholarship Increase for a period abroad | |
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| Amount monthly | 700.0 € |
| By number of months | 6 |

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