AXA - IOC UNESCO Postdoctoral Fellows
on Coastal Livelihood Preservation & Resilience

8 outstanding postdoctoral fellows have been selected to help solve the key challenges facing coastal livelihoods in the framework of the joint AXA – IOC UNESCO[1] call for proposals launched in fall 2021 as a part of Ocean Decade.[2] The research projects will receive a total of 1M€ endowment by the AXA Research Fund[3] to conduct innovative projects tackling issues, such as floods, sustainable fisheries, tsunamis, and community engagement in climate adaptation.

Andrea FICCHI
Strengthening coastal communities' resilience through better forecasting and projecting compound flood risk
Politecnico di Milano, Italy

Using machine learning techniques, Dr Andrea Ficchi will seek to better predict compound flood risk and identify high-risk areas in order to strengthen anticipatory humanitarian action and crop insurance.

> ➢ Expected start date: **Fall 2022**

Valerie HAGGER
Community forestry to enhance conservation and restoration of mangroves for more resilient coastal livelihoods
The University of Queensland, Australia

Dr Valerie Hagger will investigate how community forestry and indigenous co-management can improve mangrove conservation and restoration worldwide to reverse their continuing global decline and strengthen costal populations' resilience.

> ➢ Expected start date: **Winter 2023**

Jacqueline LAU
Navigating social barriers in coastal livelihood adaptation
ARC Centre of Excellence in Coral Reef Studies, Australia

Dr Jacqueline Lau will aim to improve understanding of how the moral and normative dimensions of cultural context shape the way people adapt their livelihoods to global environmental change.

> ➢ Expected date: **Winter 2022**

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[1] The Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO) https://ioc.unesco.org/about

[2] UNESCO, United Nations Decade of Ocean Science for Sustainable Development (2021-2030) https://www.oceandecade.org/

[3] The AXA Research Fund https://www.axa-research.org/

Emmanuel MBARU
Transboundary governance for climate change adaptation in marine socio-ecological systems
Lancaster University, United Kingdom

Dr Emmanuel Mbaru will develop a novel interdisciplinary network modeling framework to empirically quantify climate impacts on fisheries and examine how legal pluralism in fisheries governance affect ability to adapt to climate change.

➢ Expected start date: **Fall 2022**

Megnaa MEHTTA
Women's livelihoods in vulnerable coastlines
Institute of Risk and Disaster Reduction (IRDR) at UCL, United Kingdom

Dr Megnaa Mehtta will investigate several forms of differentiated vulnerability among coastline resident women of the Bay of Bengal Delta, such as intra-household inequalities, endemic health and livelihood risks, and migration-related pressures, with a view to better inform relevant decision-making.

➢ Expected start date: **Spring 2023**

Nwamaka OKEKE-OGBUAFOR
Integrating aquaculture with capture fisheries to avert hunger in coastal communities in Africa
University of Leeds, United Kingdom

Dr Nwamaka Okeke-Ogbuafor will seek to harmonize and integrate marine aquaculture and fisheries to help eradicate hunger and create new income opportunities for communities in Sierra Leone and other parts of Africa, with the aim of strengthening people's resilience.

➢ Expected start date: **Summer 2022**

Michela RAVANELLI
Mitigating tsunamis' threat and destructive impact on coastal communities through enhanced navigation satellite system to tsunami early warnings
Sapienza University of Rome, Italy

Dr Michela Ravanelli's research will leverage a set of algorithms and develop a tool based on global navigation satellite system (GNSS) to improve the reliability, accuracy and rapidity of real-time tsunami warning systems lever.

➢ Expected start date: **Fall 2023**

Marina SANZ-MARTIN
Climate-smart strategies to develop resilience in artisanal fisheries of Mediterranean Marine Protected Areas
Spanish Institute of Oceanography, Spanish National Research Council (IEO-CSIC), Spain

Dr Marina Sanz-Martín will aim at developing adaptive strategies and ocean-based solutions to facilitate a climate-smart management of Marine Protected Areas (MPAs). She will assess the climate risk exposure, the connectivity between MPAs, the vulnerability of commercial fishing species in Mediterranean MPAs and their associated socio-economical costs.

➢ Expected start date: **Fall 2022**