# Research Associate/Assistant in Coastal Ecosystem Assessment

*In the Department of Geography, National University of Singapore (NUS), Singapore-ETH Centre (SEC), Asian School of the Environment, and Nanyang Technological University (NTU)*

**INVITATION TO APPLY**
The Department of Geography at the National University of Singapore (NUS), in collaboration with the Singapore-ETH Centre (SEC) and Asian School of the Environment, Nanyang Technological University (NTU) invite applications for up to 2 Research Associates/Assistants in coastal ecosystem assessment, to begin on 15th Aug 2020 or soon thereafter. The position will run until 30th June 2021. The successful applicant will be part of a multi-million dollar project on the topic of '*A Natural Capital Assessment for Singapore*' (www.naturalcapital.sg).

**THE ROLE**
The Research Associates/Assistants will conduct data analysis to determine trends in the health of Singapore's coastal and marine environment and the ecosystem services it provides. This will involve the compilation of several existing temporal and spatial datasets, and modelling of coastal ecosystem services using software such as R and/or ArcGIS. S/he will also provide assistance to other ongoing projects, including field data collection, laboratory soil analysis and literature review.

S/he will have knowledge of tropical coastal ecosystems and the ecosystem services concept, and will have strong quantitative analysis skills. S/he will work closely with project staff, as well as the PIs to ensure the requirements of the project work plan are met.

**Job responsibilities:**
- Compilation of management of spatial, ecological and social datasets related to Singapore's coastal and marine environment
- Data processing and modelling in both R and ArcGIS
- Assistance with field data collection in mangroves, seagrasses and beaches
- Report to and work with the principal investigator and assigned project staff
- Any other ad-hoc duties as assigned by the principal investigator

**Required Skills:**
- Undergraduate degree (second upper or higher) in Geography, Environmental Science, Life Sciences or related fields (for position at the Research Assistant level)
- Strong skills in coding, data processing and analysis using R
- Experience with Geographical Information Systems (GIS)
- Excellent oral and written communication skills
- Highly organized and proactive
- Ability to work independently and meet deadlines
- Positive working attitude, both in a team and independently

**Desired Skills:**
- A Masters degree in Geography, Environmental Science, Life Sciences or related fields (for position at the Research Associate level)
- Experience with other data analysis software (e.g., Matlab, SPSS or Python)
- Experience with statistical data analysis techniques (e.g., ANOVA, PCA, Regression)
- Experience with basic laboratory techniques such as sediment grain size analysis and carbon estimation
- Excellent data management and analysis skills

**ABOUT THE RESEARCH PROJECT**

The overall aim of the project is to quantify the economic, social, and cultural value of Singapore's environmental assets (its 'Natural Capital'), and present and model the information in such a way that it can inform future policy and urban development. To protect and enhance natural capital in Singapore and secure the long-term foundational benefits from this capital, we need to understand the current status of Singapore's ecosystems, and develop tools to predict the environmental impacts of future urbanization. This will be achieved by:

1. quantifying the current status of Singapore's terrestrial and coastal-marine ecosystems
2. quantifying the value of Singapore's terrestrial and coastal/marine ecosystems to Society.
3. assessing tradeoffs between urban development (urban assets) and natural capital (natural assets)
4. assessing future policy and development opportunities that integrate natural capital

**ABOUT THE INSTITUTIONS**

The QS World University rankings place NUS in the top 15 universities in the world and number one in Asia. In the same rankings the Department of Geography is generally ranked among the top 10 Geography programmes globally. Further information on the Department is available at: http://www.fas.nus.edu.sg/geog

Young and research-intensive, Nanyang Technological University (NTU Singapore) is ranked 13th globally and 1st amongst the world's best young universities. The Asian School of the Environment is home to Environmental Sciences at NTU. Our aim is to provide the next generation of Geoscientists, Ecologists and Environmental Sociologists with the training they need to succeed in their chosen career. For more information, please visit: http://www.ase.ntu.edu.sg

The Singapore-ETH Centre was established in 2010 by ETH Zurich and Singapore's National Research Foundation, as part of its CREATE campus. The vibrant hub for research aims to provide practical solutions to some of the most pressing problems through its programmes - Future Cities Laboratory and Future Resilient Systems.

**TERMS OF APPOINTMENT**

1. The appointment will be tenable until 30th June 2021.
2. The position comes with competitive remuneration
3. Singapore citizens and permanent residents are eligible for provident fund benefits

**APPLICATION PROCEDURE**

Interested scholars should submit i) a letter of interest, ii) a Curriculum Vitae and iii) the contact details for two references via email to dan.friess@nus.edu.sg by 5pm 10th July 2020.

Shortlisted applicants will be interviewed over Zoom. For further information on the project contact Dr. Dan Friess (dan.friess@nus.edu.sg) or Dr. Natasha Bhatia (nbhatia@ntu.edu.sg)