

# Tonga Statistics Department

## Terms of Reference

### Hazard Mapping Consultant for Early Warning Systems

Assignment:	Hazard Mapping Consultant
Employer:	Tonga Statistics Department, Kingdom of Tonga
Location:	Nuku'alofa, Tonga
Duration:	One month ( <i>subject for extension</i> )
Tentative Start Date:	March 2024

#### I. INTRODUCTION

This note sets out Terms of Reference (TOR) for Consultancy to support Tonga Statistics Department (TSD) with the preparation of “hazard maps” that combine information around geographic vulnerabilities to natural disasters with information on population and demographics, in order to inform an early warning system for natural disasters in Tonga. The Consultancy is estimated at four weeks of effort, undertaken remotely, taking place in March, 2024.

#### II. BACKGROUND

Tonga is one of the Small Island Developing States that is not only small but contains small islands within the small state, most isolated, and like other vulnerable nations of its kind – faces many development challenges. Small size and remoteness increase the costs and complexities of economic activity, public service delivery, and data collection. The geographical characteristics of the country also lead to a high vulnerability to natural disasters. These factors have led to an undiversified economy that is vulnerable to external shocks and dependent on financial transfers.

The Tonga Statistics Department (TSD) is Tonga’s main government agency in terms of collection, processing, and publication of economic and social statistics. With the increasing demand for data, TSD is trying to address data gaps and gather new data sources and develop new statistics in order to assist with planning and policy making for the country.

To support in addressing these issues, particularly through the channel of strengthening public financial management, an IDA project to facilitate “Statistical Innovation and Capacity Building” has been initiated. The ultimate objective of this project is improving the comparability, accessibility, sustainability, and overall quality of statistics in Tonga.

#### III. OBJECTIVE OF THE ASSIGNMENT

Tonga Statistics Department (TSD) wish to recruit a skilled and capable consultant to combine existing data sources in Tonga to create hazard maps to inform an early warning system for natural disasters in the country.

The Consultant will be tasked to support TSD in:

1. Utilizing existing Census data to map the distribution of the Tongan population at an appropriate level of granularity.
2. Utilizing existing analysis of the Household Income and Expenditure Survey (HIES) data to map information on household welfare and other characteristics linked to household vulnerability at an appropriate level of granularity.

3. Analyzing historical information on natural disasters and other available geographic information to map the level of risk of relevant geological and hydrological natural disasters in each area.

#### **IV. DESIRED OUTPUTS**

The desired final outputs of this consultancy are as follows:

1. A set of hazard maps that overlay the information on population, welfare and vulnerability, and disaster risks at national and sub-national level.
2. A two-page brief that interprets the findings of the hazard maps and informs policymakers on priority areas to mitigate the risk of disasters and priority areas for response during a disaster event; and
3. Complete analytical documentation that can be shared with TSD.

#### **V. SELECTION CRITERIA**

The following expertise and level of experience is required of the Consultant:

- Master’s degree or PhD in economics, statistics or other related field
- At least six years of professional experience for a Master’s degree holder or two years’ professional experience for a PhD holder in similar assignments
- Experience in work related to geospatial data.
- Extensive experience with relevant statistical analysis and GIS software.
- Excellent verbal and written communication skills in English.
- Experience working with development partners such as WB, ADB, and DFAT would be an advantage.
- Experience working in Tonga or other Pacific Island Countries would be an advantage.
- Evidence of strong interpersonal skills around collaboration and communication, particularly in a remote work context.

#### **Scoring**

CVs of eligible candidates that meet the minimum requirements will be scored according to the following criteria:

Criteria	Maximum score
1) General qualifications (general education, training, and experience)	20
2) Relevant technical experience (demonstrated experience in the sector/similar assignments, experience working with Development Partners, experience in the Pacific)	60
3) Interpersonal skills	20

#### **VI. REPORTING ARRANGEMENTS**

The Consultant will report to the Government Statistician of the Tonga Statistics Department, and the Project Coordinator of SICBT and will be expected to maintain regular communications throughout the consultancy period.

## **VII. SELECTION METHOD**

The Hazard Mapping Consultant will be selected through the “Individual Consultant Selection method” in accordance with the World Bank Procurement Regulations for Investment Project Financing (IPF) Borrowers, version of November 2020.