

# Pilot training on Automated Processing of Administrative Trade Statistics using R

28 September – 01 October 2026

Hybrid (e-learning modules; in-person workshop in Suva, Fiji)

## Concept note and provisional agenda

### BACKGROUND

Domestic production in the Pacific is limited by the lack of resources and technologies, geographic isolation, high costs, and insufficient economies of scale. As such, Pacific economies are heavily reliant on international trade to supply their basic commodities and more complex machinery, and to expand their market base. International merchandise trade statistics (IMTS) is crucial to monitor and analyze trade flows, production and consumption. Timely and high-quality trade statistics will better guide the development of trade and economic policies and infrastructure planning.

As trade datasets grow in volume and complexity, manual data cleaning, validation, and compilation could be slow, prone to error, lack an audit trail, and not methodologically repeatable. Automating parts of the statistical production process offers reproducibility and reduces human error, standardizes methods across reporting cycles and across countries, and allows small teams to focus on processes that need more careful manual deliberation (such as data cleaning procedures and analysis).

This hybrid workshop, organized by the Pacific Community (SPC) and United Nations Statistical Institute for Asia and the Pacific (SIAP), aims to increase capacities of national statistical systems to compile international merchandise trade statistics by automating parts of their workflow process.

### LEARNING OBJECTIVES

At the end of the workshop, participants should be able to:

- a) **Review** the latest developments in measuring international merchandise trade statistics
- b) **Evaluate** the challenges in measuring trade statistics in their country and in the Pacific
- c) **Pilot** test the automated processing of trade statistics using R
- d) **Use** R to implement an automated workflow for trade statistics
- e) **Facilitate** experience sharing among countries

## **EXPECTED OUTCOMES**

The expected outcomes of the workshop are:

- a) Applied up-to-date concept, standards, and definitions in measuring trade
- b) Clearer indication of gaps and bottlenecks in measuring trade
- c) Updated and tailored R code based on Pacific and country context and needs in automating workflow to measure and monitor trade statistics in the region
- d) Enhanced skills in coding, classifying, and analyzing international merchandise trade statistics using R
- e) Stronger harmonization of classification and standards in measuring trade in the Pacific region

## **LANGUAGE**

The course will be offered in English.

## **TARGET PARTICIPANTS**

Target participants are staff of national statistical offices that have experience in processing merchandise trade statistics as part of external sector statistics. Nine participants will be invited from Fiji (4 participants), Kiribati (1 participant), Tonga (1 participant), Vanuatu (2 participant), and Papua New Guinea (1 participant).

## **ORGANIZATION**

The 4-day workshop will take place in SPC Office Nabua Campus, Suva, Fiji. During the workshop, participants will discuss conceptual and technical issues related to measuring trade statistics. The workshop will consist of presentations, practical exercises, and the sharing of experiences among countries.

## **CONTACT PERSONS**

Bimlesh Krishna  
Statistics Adviser  
Pacific Community  
E-mail: [bimleshk@spc.int](mailto:bimleshk@spc.int)

Ana Francesca Rosales  
Statistician  
United Nations Statistical Institute for Asia and the Pacific  
Chiba, Japan  
E-mail: [chesca.rosales@un.org](mailto:chesca.rosales@un.org)

Christophe Bontemps  
Statistician  
United Nations Statistical Institute for Asia and the Pacific  
Chiba, Japan  
E-mail: [christophe.bontemps@un.org](mailto:christophe.bontemps@un.org)

## **DRAFT AGENDA**

### **Mandatory online course (details will be provided in due course)**

Module 1 – **Install R!** is a short tutorial for installing R, R studio and packages. This is mandatory for all participants since the automated processing code will be through R.

Module 2 – **Basic R!** is a short tutorial covering essential skills for importing and handling data. *Tidyverse* package will be introduced.

Module 3 – **UseR!** is a practical tutorial on working with survey data to compute indicators. More complex functions and computations in the *Tidyverse* package will be covered.

R/RStudio clinic – This two-hour online session will be dedicated for addressing technical issues in installing and using R.

### **In-person workshop (September 28 – October 01, 2026)**

#### Day 1

- Opening and introductions
- Overview and updates to International Merchandise Trade Statistics
  - General and specific recommendations
  - Customs procedure codes
- Country practices on measuring trade statistics
  - Customs procedure codes filters
  - Verification process
  - Approaches to address outliers and missing data

#### Day 2

- Basic principles of Reproducible Analytical Pipelines
- Refresher course on R
- Automated processing of trade statistics: general code
  - Uploading original dataset
  - Data cleaning and validation
    - Automating verification procedures
      - Completeness check (e.g., detecting missing data)

- Consistency check (e.g., detecting outliers)
- Quality check (e.g., wrong HS classification assigned, data entry error)
- Valuation check
  - Automated and manual data cleaning procedures (e.g., imputation methods)
- Data coding and classification
- Data aggregation and tabulation (e.g., in various file formats such as .csv, .xlsx, .pdf)
- Data visualization and analysis for report writing
- Safe storage of data and outputs

### Day 3

- Automated processing of trade statistics: general code (continuation)
- Application of R code to country data

### Day 4

- Application of R code to country data