Draft Programme

National Capacity Building Training on Statistical, Methodological and Computational aspects of the Productive Capacities Index (PCI)

(Lilongwe, Malawi, 3-4 October 2023)

The main objectives of the statistical training are:

I. To build statistical capacities of Malawi though training of national statistical experts to compute and interpret country-specific PCI;

II. To share statistical and methodological as well as computational aspects of the PCI and to expose national statisticians to UNCTAD's Productive Capacities Index (PCI);

III. To enhance the capacity of Malawian statistical experts to initiate processes to enhance the validity of the results for Malawi;

IV. To explore how the PCI can be used in national statistics and policy-making processes.

V. To foster a network of national statisticians who work and exchange on PCI

VI. To collect feedback for the Statistical and Technical Advisory Group (STAG) of the PCI

To participate in the training sessions, all trainees must have access to a computer with R and RStudio installed.

✓ The R software (which is the engine that performs the calculations) and R Studio Desktop (which is integrated development environment for R and makes working with R much more manageable) can be both easily downloaded from
https://www.rstudio.com/products/rstudio/download/ (Steps 1 & 2 respectively)

Tuesday, 03 October 2023

09:00-09:30   Registration and introduction of participants

09:30-10:00   Opening, overall objectives of the training, economic concepts around productive capacities and articulation with official statistics. **Rachid Bouhia, Economic Affairs Officer, Productive Capacities and Sustainable Development Branch, UNCTAD**

10:00-11:00   **Session 0: Setting the stage**
Introduction to the UNCTADStat PCI database: Access and use; **Mr. Benny Salo, Statistician, UNCTAD Statistics**

11:00-11:30   Tea/Coffee break

11:30-12:00	Overall presentation and visualization of the PCI package: pipelines, inputs, outputs, options and objects; **Mr. Rachid Bouhia, Economic Affairs Officer, Productive Capacities and Sustainable Development Branch, UNCTAD**
12:00-13:00	Introduction to R and hands-on exercises; **Mr. Benny Salo, Statistician, UNCTAD**
13:00-14:00	Lunch Break
14:00- 15:00	**Session 1: Reading data (Step 1)** Indicators for productive capacities as input for PCI: Sources and data availability; **Mr. Benny Salo, Statistician, UNCTAD Statistics**
15:00-15:30	Drills on input datasets and NA diagnostics; **Mr. Rachid Bouhia, Economic Affairs Officer & Mr. Benny Salo, Statistician, UNCTAD**
15:30-16:00	Tea/coffee break
16:00-17:00	**Session 2: Interpolating, extrapolating and accounting for COVID-19 (Steps 2 & 3)** Overview of methods used and drills; **Mr. Rachid Bouhia, Economic Affairs Officer & Mr. Benny Salo, Statistician, UNCTAD**

Wednesday, 04 October 2023

09:30-11:00	**Session 3: Computing the PCI (Step 6)** Presentation of Principal Component Analysis, applications to the PCI and drills; **Mr. Rachid Bouhia, Economic Affairs Officer, UNCTAD**
11:00-11:30	Tea/Coffee break
11:30-12:00	**Session 4: Transforming input indicators (Step 5)** Overview of options and exercises; **Mr. Benny Salo, Statistician, UNCTAD**

12:00-13:00	**Session 5: Imputing missing values (Step 4)** Presentation of techniques used (random forests, PCA and gravity models) and drills; **Mr. Benny Salo, Statistician, UNCTAD**
13:00-14:00	Lunch
14:00-14:30	Why Productive Capacities Matter for Malawi and what do we learn from Malawi's PCI score? **Mr. Andrzej Bolesta, Economic Affairs Officer, UNCTAD**
14:30-15:30	Group exercises and presentations on PCI analysis; **Mr. Rachid Bouhia, Economic Affairs Officer & Mr. Benny Salo, Statistician, UNCTAD**
15:30-16:00	Tea/coffee break
16:00-17:00	(Continued) Group exercises and presentations on PCI analysis; **Mr. Rachid Bouhia, Economic Affairs Officer & Mr. Benny Salo, Statistician, UNCTAD**
17:00-17:10	The way forward and closing; **Mr. Rachid Bouhia, Economic Affairs Officer & Mr. Mussie Delelegn Arega, A/Head, Productive Capacities and Sustainable Development Branch, UNCTAD**