ARTNeT Capacity Building Workshop on the Use of Gravity Modelling

19-22 March 2013

Venue:
Computer Lab, Learning Centre
United Nations Conference Centre (3rd floor)
Bangkok, Thailand

TENTATIVE PROGRAMME

This workshop aims to provide participants with the following:

1. A solid understanding of the gravity model of bilateral trade, including its theoretical basis;
2. Practical skills in applying basic gravity econometrics using Stata;
3. An appreciation of data and estimation issues involved in the use of gravity models in a range of applied trade policy topics.

In light of these objectives, the structure of the workshop will alternate between presentations by the trainer based on the existing literature, and "hands on" applications in which participants will be invited to explore concrete applications using real data. In addition, participants will be required to work in groups to conduct an exercise tracing through all aspects of the gravity modeling process, from research design to presentation and interpretation of results.

Workshop facilitators: Mr. Yong Yoon (Chulalongkorn university), Ms. Witada Anukoonwattaka, (ESCAP/ARTNeT), Mr. Prabir De, (RIS), Mr. Yann Duval , (ESCAP/ARTNeT), and Ms. Chorthip Utoktham (ESCAP/ARTNeT).

Tuesday, 19 March: Basic STATA for the Gravity Model of Trade

08:45-09:00   *Registration*

09:00-09:15   *Opening Remarks*

09:15-12:00   *Morning Session: Introduction to STATA for regression analysis (Mr. Yong Yoon, Chulalongkorn University)*

- STATA Basic
- Data management

12:00 – 13:00   *Lunch Break*

13:00-16:00   *Afternoon Session: Basic econometrics used in the gravity model (Mr. Yong Yoon, Chulalongkorn University)*

- Basic econometrics (OLS)
- How to detect and deal with common errors in regression analysis.

Wednesday, 20 March: Introduction to the Gravity Model of trade

09:00-12:00   *Morning Session: Introduction to gravity model (Ms. Witada Anukoonwattaka, ESCAP/ARTNeT)*

- The intuitive gravity model: form, estimation, and interpretation of results.
- Problems with the traditional gravity model
- Theoretical Gravity models

12:00-13:005: *Lunch Break*

13:00-16:00   *Afternoon Session: Estimating the theoretical gravity model   (Ms. Witada Anukoonwattaka, ESCAP/ARTNeT)*

- Estimating theoretical gravity models
  - Fixed effects approach
  - Baier-Bergstrand approach
  - Often-made mistakes

Thursday, 21 March: Alternative Gravity Model estimators

09:00-12:00   *Morning Session: Alternative* gravity estimators *(Mr. Prabir De, RIS)*

- Poisson Pseudo-Maximum Likelihood Estimator
- Heckman Sample-Selection Estimator

12:00-13:00   *Lunch Break*

13:00-16:00   *Afternoon Session: Using gravity in research works and wrap up (Mr. Yann Duval and Ms. Chorthip Utoktham, ESCAP/ARTNeT).*

- Proper uses of gravity approach: examples from trade-facilitation research

Friday, 22 March: Group Exercise and Projects

09:00-12:00   *Morning Session (Group work)*

- Consolidating exercises and formulating research questions for new projects

12:00-13:00   *Lunch Break*

13:00-16:00   *Afternoon Session (Group Presentation and comments by resource persons)*

- Presentation of the project ideas
- Comments on the project ideas by resource persons
- Closing

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