Introduction to the Training Programme

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**Presented at the ARTNeT-GIZ Capacity Building Workshop on
"Practical tools for Impact Assessment of Free Trade Agreements"
23-27 January 2017, Bangkok**

Increasing demand for quantitative analysis

- Domestic Policies
- Global Policies (i.e. WTO negotiations)
- Regional Policies

Different methods

- Simple Statistical Analysis
- Ex Post Analysis: Econometric Studies
- Ex Ante Analysis: Partial Equilibrium models (for example, WITS/SMART model) and General Equilibrium Models (for example, CGE models, GTAP model)

Why do we need models?

- Complex interactions among economic agents
- Policy Matters
  - Policies have economy-wide effects;
  - Policies may have international effects;
  - Monitoring and analyzing policies;
  - Forecasting their impacts
- Modeling helps us understand complex issues and take better decisions.

What is a model?

- A set of equations
- Embody the history of theoretical and empirical economic knowledge
- Macro or/and detailed structure
- Key components
  - Behavioral equations
  - Identities
  - Exogenous inputs

Problems with Partial Equilibrium Models

- Partial = only looks at part of the economy (sector)

- Interactions among only few variables: holding all other variables constant

- Lack of sectoral inter-linkages: Limited links with other parts of economy (limited backward and forward linkages)

- Can be useful if the effects on rest of the economy are small: small sector

Why CGE Model?

- CGE models have been most widely used to analyze the impact of hypothetical policy changes that are large in scope and have a broad impact on the structure of the economy

- It takes into account complicated sectoral inter-linkages

- It can quantify the benefits and costs of proposed initiatives

Why CGE Model?...

- It can identify who benefits and who losses and by how much

- It can shed light on the supporting policy adjustments required as part of a broader economic policy framework

- CGE models are flexible and with appropriate modification in the characteristics of the model and the data set can handle a variety of issues.