



# GREEN ECONOMY GREEN GROWTH-MYANMAR(not-for-profit) ASSOCIATION

**GEGG-MYANMAR**

35B-15, New University Avenue, Bahan Tsp, Yangon, Myanmar.

Phone(o) : (95-9) 4500-48372  
Fax : (95-1) 664411

E-mail : [gegg-myanmar@gmail.com](mailto:gegg-myanmar@gmail.com)

## **THE PROGRAMME SECOND MYANMAR GREEN ECONOMY GREEN GROWTH: *MOVING FORWARD.***

### **ANNEX 3.3**

#### **Water Evaluation and Planning System, WEAP : A tool for Sustainable Water Analysis**

**Facilitated by Stockholm Environment Institute, SEI)**

##### **SEI Staff**

Holger Hoff, Research Fellow, Stockholm Environment Institute, Sweden

Annette Huber-Lee, PhD, Bangkok, Thailand

David Yates, PhD, Research Associate, SEI & National Center for Atmospheric Research, Colorado, US

Chayanis Krittasudthacheewa, PhD, Bangkok, Thailand

##### **Regional Partners**

Prof. Dr. Yanyong Inmoung

Department of Environmental Health Science,

Faculty of Public Health

Khon Kaen University, Thailand

##### **Motivation**

One of the major challenges facing nations and the world is the increase in demand for basic resources in connection with water, food and energy. Not only are these sectors governed separately, with separate ministries of water, agriculture and energy. The academic training for planning has essentially no overlap – each sector has its own established practices and tools that do not connect with each other. The lack of integration has only recently been recognized, as the inter-dependence of these sectors is becoming a global problem. World food price increases have been linked to national policies on biofuels, and climate change not only is affecting agriculture and water availability, but the ability of power plants to produce electricity when the water temperatures of the cooling water are too high requiring plants to shut down.

This workshop will introduce participants to a new analytical platform for the water-energy nexus as well as scenario techniques for the water-food-energy nexus. Two modeling tools are now dynamically linked: WEAP and LEAP, as described below.

Participants will first learn about WEAP (Water Evaluation and Planning System) (<http://www.weap21.org/>). WEAP is a scenario-based tool for integrated water resources planning. It provides a comprehensive, flexible and user-friendly framework for planning and policy analysis. WEAP allows the examination of impacts of climate change, the role of different technologies in both supply-side and demand-side management, and the inter-relationships with energy. Participants will then learn about LEAP (Long-range Energy Alternatives Planning System) (<http://www.energycommunity.org/>). LEAP is an integrated modeling tool that can be used to track energy consumption, production and resource extraction in all sectors of an economy.

The participants will then learn about the linkage of these two tools and how they have been applied both regionally and globally. This will then be put into a larger context linking food and climate change.

**More generally, the workshop will cover:**

- Background on the water-food-energy nexus
- Example applications both regionally and globally (transitions/national level/framing/policies)
- Data requirements for the use of nexus tools and planning
  - Energy
  - Water
  - Food
- Short film on a pilot application of the WEAP-LEAP integrated planning tool

**Co-leaders for the workshop:** Prof. Dr. Yanyong Inmoung of Khon Kaen University and David Yates, PhD and Chayanis Krittasudthacheewa, PhD of SEI