Measuring water flows and balances within the “critical zone" of tropical Argo-Ecosystems of South East Asia

Administrative Circular

28th October – 1st November, 2013
Luang Prabang on MSEC experimental field,
Luang Prabang, Lao PDR

1. Presentation:

Since about 2 decades, the tropical agro-ecosystems of South-East Asia are submitted to outstanding changes of farmers' practices following the combined pressure of population growth in rural areas and of the market's demands on cash and food crops. In the context of climate change, the impact of the land use changes on the hydro-bio-geo-chemical processes occurring in the "critical zone" (National Research Council, 2001) is threatening the sustainability of the novel practices. The "critical zone" which extends from the top of the bedrock up to the top of the canopy, is indeed the zone where surface water and groundwater are split, where the water resource forms and acquires its chemical composition and where polluting substances are mobilized. It is hence the principal source of all environmental negative or positive impacts on water resource resulting from Land Use and Climate Changes. In order to improve the management of water resource in South East Asia, there is a strong need for a better understanding of the transformations which are occurring in the critical zone. Such knowledge requires a detailed assessment of water fluxes at the Soil-Vegetation-Atmosphere interface using up-to-date and cost effective devices.

Objective of the proposal

The objective of the proposed collective training is to strengthen the knowledge of staff from national institutions in South East Asia in the field of hill slope and small catchment hydrology.

Four areas will be prioritized:

(1) Stream discharge measurement (i.e. propeller and tracer-based methods);
(2) Estimate of soil moisture (i.e. gravimetric and Time Domain Reflectometry methods);
(3) Estimates of soil permeability (Wiltschut infiltrometer);
(4) Groundwater/stream water interactions (piezometric measurements and 2D electrical resistivity tomography).

This project targets an audience of scientists, engineers and technicians with basic knowledge in the field of environmental sciences.

2. Participants

Target participants for the workshop are approximately 15 from SEA countries who have been working in agriculture and related field as researchers/scientists.

IRD (LMI LUSES and PPR SELTAR) will cover travel expenses for the selected participants from Lao, Thailand, and Vietnam. This will include travel (a roundtrip flight or bus to **Luang Prabang** from the capital city of each participant by economy class), and accommodation **for 4 nights (28th October – 1st November, 2013)**, food and other incidental expenses.

For selected participants who received confirmation by the organizing committee, please submit your airfare quotation (in US. Dollars, for a restrict ticket, excluding travel insurance) and detailed travel itinerary from travel agent directly to IRD Representative of your own countries for approval as soon as possible. Note that Lao Airlines is currently the cheapest company and should be preferred. To avoid higher air fares, visa and accommodation problems, etc... Please keep Mr. Dassakorn Borihan (secretary.lddird@yahoo.com) or Dr. Henri Robain (henri.robain@ird.fr) posted in copy regarding the occurred expenses.

Contact persons

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3. Language of the Workshop

English will be the working language at the workshop.

4. Registration

All participants are requested to present Monday morning for participation to the training. Arrival in Luang Prabang should be scheduled accordingly. A shuttle will pick up the participants at the airport and bring them to the guest house where they will be accommodated. Registration will be done at the guest house.

5. Host country authorities and Contact persons

IRD team is taking in charge of the preparation of the Scientific Workshop

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For additional information, please contact below:

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6. Workshop Dates and Venue

The workshop will be held from **28th October – 1st November, 2013**, **Luang Prabang on MSEC experimental field, Luang Prabang, Lao PDR**

7. Accommodation and Hotel Reservation

The organizing committee is pleased to arrange accommodation reservation for participants in the **SOM KOUNMEUNG GUEST HOUSE**.

8. How to reach the venue

IRD assistants will ensure airport transfer arrangements to the Guest House.

9. Arrival and Entry Formalities

All participants are required to possess valid passports to enter Laos. Participants from certain countries require visa to enter Lao PDR. Participants are responsible for arranging their visas, if required. For details related to visa requirement for entering Lao PDR, please check with the visa requirement. It is also possible to get visa on arrival: don’t forget to come with one identity picture and 50 USD.

10. Hospitality

For the SEA participants, the budget will cover for the travel expenses. At the event, the host will provide breaks, lunch and dinner along five days workshop.