

# Lao, int'l reps discuss land use change impacts on ecosystem services

Times Reporters

Lao, Vietnamese, Thai and French researchers met in Vientiane last week to discuss the impact of rapid changes in land use on ecosystem services in the context of climate change and economic transformation of the lower Mekong Basin.

Among the topics discussed was the question of whether and how agriculture can meet the challenge of feeding a constantly growing population while contributing to mitigating the effects of climate change.

The meeting was attended by Vice President of the National University of Laos, Associate Prof. Oudom Phonekhampheng, Director of the Research Centre on Climate Change Resilience in Agriculture, Dr Thavone Inthavong, and Dr Alain Pierret from IEES Paris (Institut d'Ecologie et des Sciences de l'Environnement de Paris).

One practical solution to this problem, which researchers discussed at the meeting, lies in the fact that our planet's soil stores more than three times the amount of carbon found in the atmosphere. Increasing the amount of carbon stored in the soil by only 0.4 percent every year will halt the increase in CO2 concentration in the atmosphere resulting from human activities.

This approach, known as the "4 per 1000" initiative, which was launched at



Participants gather during the meeting in Vientiane.

the COP 21 conference organised in Paris in 2015, demonstrates that agriculture, and in particular innovative management of cultivated soil, can play a crucial role in mitigating climate change.

To increase the amount of carbon stored in soils, one must increase the amounts of "organic matter" that is returned to the soil and slow down its breakdown.

Soil organic matter is typically dead plant material or animal waste, which give the topsoil its dark colour. Incorporating more organic matter is what organic farmers are already doing when they fertilise their crops using manure or compost, instead of chemical fertilisers.

By using compost, farmers not only improve plant production but they make soils more resilient to drought and flooding, which

are becoming more frequent due to climate change.

Another hot topic discussed at the meeting concerned the transfer of knowledge and technology needed for widespread adoption of agroecological practices by farmers of the region. It will be necessary to develop simple and affordable yet reliable monitoring devices that farmers can use to implement climate-smart agriculture, smart farming and smart composting.

The IRD (the French Institute of Research for Sustainable Development) is currently working with a Lao startup (MounoyDev), based in Vientiane, that is developing such connected sensors.

The need to increase the capacity of Lao academic and technical staff involved in agriculture was also discussed at the meeting. It

was agreed that VinAtom, the Vietnam Atomic Energy Institute, and IRD will work jointly to train Lao researchers about isotopic techniques, which form an important body of diagnostic tools used for agronomical research worldwide but which have not yet been brought to Laos.

The meeting outlined the importance of research collaboration between Southeast Asian and French organisations in agroecology, as it has significant potential to increase the efficiency and productivity of climate-smart agriculture while contributing to decreasing the negative impacts of climate change.

This also represents a unique win-win opportunity from which Lao organic farmers can get significant benefits and decision makers will hopefully promote.

## Officials equality

importance and that every country was attempting to introduce more equality in every sphere of life.

"The Lao Women's Union

