

# Ensuring the future of perennial crops in Southeast Asia in a context of global change : case of Garcinia fruit tree species.

## OBJECTIFS

MANNGIS will focus on a key perennial crop, the mangosteen (*Garcinia mangostana*; Clusiaceae), as one of the most desirable tropical fruits of the region.

Mangosteen's place of origin and cultivation history remain unknown, but it is believed to have originated from a wild relative species in the Malay archipelago. *Garcinia malaccensis* and *G. hombroniana* are often cited as candidates, although this needs to be verified.

## ACTIONS

In order to better understand the origin, cultivation history and future evolution of mangosteen, MANNGIS will tackle the following objectives:

Delimitation of *G. mangostana* / *G. malaccensis* / *G. hombroniana* using a joint botanical/population genetics approach

Relying on this species delimitation study, characterize the genetic diversity of the species at the regional level

Develop species niche models, and map genetic diversity of the species in the future under different scenarios of climate change

## RESULTATS

MANNGIS will allow:

unravelling the respective status of these species, as well as the cultivation history of mangosteen  
identifying zones of high or particular genetic diversity to be conserved

contributing to the establishment of CSM&U strategies

## PERSPECTIVES

A number of wild *Garcinia* species are still neglected (and threatened by deforestation), yet they can contribute to diversity in markets and to diets. These species need to be characterized (diversity, distribution, threats, nutrition, agronomic and economic potential, etc), and MANNGIS will provide a methodological framework to be replicated

**Responsable :**

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