

Updates: International Plant Nutrition Institute, Southeast Asia Program (IPNI SEAP)

New! Revised Engagement Strategy for the Southeast Asia Program

In the Southeast Asian (SEA) region, high populations relative to currently cultivated land area and concerns about expansion of cultivated area, particularly in the tropical rainforest areas, which are the frontier of much of SEA agriculture, make it difficult to foresee increased production primarily through increased area under cultivation. This suggests that strategies to increase agricultural production in the region should be based primarily on intensification of production systems.

What is meant by intensification? In the context of minimizing expansion of cultivated land and at the same time increasing production, **intensification refers to increased productivity per unit of land area**, which can be achieved using sustainable management practices.

The manner in which intensification can be achieved will depend on the characteristics of the crop, where it is grown and by whom and how it is managed. In the region, there are many different crops with a wide range of features. In spite of this variation, there is one constant theme running through the history of greater productivity per unit land area or intensification: improved plant nutrition through optimal use of fertilizers.

Whilst not negating the importance of research and development by government or other official agencies, it is likely that most of the future development of commodities other than rice, maize and wheat will depend on initiatives from vested interests within the sector or suppliers of goods and services to the sector. Vested interests, whether they are vertically integrated within a sector or not, are important promoters of intensified production systems, and with certain caveats, can be extremely effective, particularly when government and public agencies do not play a major role or do not have a vested interest themselves. The question then becomes: how exactly can IPNI support the intensified production of crops?

The development of IPNI SEAP strategies take into account the situation in the SEA region, the overall mission of IPNI, and the necessity of fulfilling IPNI Member expectations. In order to meet the needs for intensification of agriculture in the region, the overall goal of IPNI SEAP is: **to intensify agricultural production in the region through improved management practices with emphasis on enhanced plant nutrition that is implemented using the 4R Nutrient Stewardship concept as the guiding framework and essential component of highly productive agricultural systems.**

To facilitate understanding of the range of strategies, crops are divided into three main groups according to the agent that is likely to be the most important

driver of change and innovation, and in relation to the market development opportunities.

- Crops and their products that are produced by **integrated industries**, which have a vested interest in intensifying the agricultural part of their industry: The oil palm industry in SEA is tightly integrated with primary production, harvesting, extraction, processing and marketing. Based on its importance in the economy of SEA, its position as a major user of fertilizer and the opportunities for intensification of production to minimize expansion into fragile ecosystems, IPNI will work with oil palm.
- Crops and their products in which **suppliers of inputs or commodity buyers** have a major vested interest in more intensive production systems: This group encompasses a range of crops. IPNI's strategy is to work with those crops in which a major opportunity exists to intensify production through improved nutrition. The first crops that IPNI SEAP has identified are cocoa and cassava.
- Crops and their products for those production **public agencies** play a major role in research, innovation and development. These crops tend to be the major food crops. In the SEA region, rice and maize are the most important crops in this category. With these crops, IPNI SEAP's strategy is to work with the lead agencies providing vital information on how plant nutrition can be improved. Emphasis will be given to Site-Specific Nutrient Management.



Photos from left to right:

A woman prepares bags for cocoa seedlings in Sulawesi, Indonesia, where IPNI SEAP works with the Cocoa Care Initiative to support sustainable intensification of smallholder cocoa systems. Photo by T. Oberthür.

An impression of oil palm systems in Ghana, where IPNI SEAP works jointly with IPNI Africa Program in the establishment of Best Management Practices for the intensification of oil palm plantation and smallholder cropping systems. Photo by T. Oberthür.

Cassava harvest is ongoing. IPNI SEAP is preparing an engagement in cassava cropping systems in Southeast Asia. Photo by N. Palmer (CIAT)