

## Bio-Intensive Gardening

**Despite economic growth**, many communities in Southeast Asia continue to suffer from crippling poverty. The rural landless poor are the most affected, with minimal education and limited access to arable land, agricultural capital, information and basic social services.

Widespread poverty, climate change, hunger and malnutrition threaten to destabilize global economic, social, political and environmental conditions. Immediate measure must be taken to reverse the current trends, which contribute to food insecurity. At the school level, there is an urgent need to learn and disseminate appropriate technologies to support food security and nutrition programs to fill in gaps created by declining feeding and programs in poor rural schools.

### The Project

Since the 1980s, IIRR has utilized Bio-Intensive Gardening (BIG) technology, intensively cultivating small areas of land using nature's own ingredients to rebuild and maintain soil productivity. IIRR's BIG efforts have now reached Bangladesh, Cambodia, Ethiopia, Guatemala, India, Indonesia, Kenya, Laos, Nepal, the Philippines, Thailand, and Uganda. In 2005, IIRR began the *BIG Intensification Program* bringing BIG technology as well as health and nutrition education directly into the classrooms of over 100 poor, rural schools in the Philippines, reducing malnutrition and transferring life-long agricultural skills to communities.



In the Philippines, poor rural schools are faced with massive problems of malnutrition which has been identified as one of the key causes of low learning and poor performance of students. With its proven success in reducing child malnutrition rates, IIRR plans to expand BIG and its school-based health and nutrition programs to target district governments, local schools and village households in selected communities in the Philippines.

The project will begin with a field-based scoping study to determine context-specific aspects of malnutrition that will guide BIG production. Building the capacities of project beneficiaries on BIG technology will be hands-on through BIG model demonstration farms in targeted school districts. Concomitantly, capacity building efforts will be organized for school administration, government officials and parents, helping them to better recognize and address symptoms of malnutrition among children. A revolving loan fund will also be initiated to encourage farming beyond mere subsistence, ensuring that families can support themselves in the long run through agricultural enterprises.

Seminars, demonstration farms and microfinance schemes will engage households, elementary schools, government health officials/workers and school teachers in multiple villages, towns, and cities. Key project objectives include:

- Firmly rooting BIG technology into schools as a means to address context specific malnutrition in grades one through four.
- Providing opportunities for the rural poor to gain supplementary household income within a short period, which is also sustainable in the long-term thus ensuring household nutrition, food safety and food security. To support this effort IIRR will develop a BIG Community Health and Nutrition pocket manual in the local language for easy reference.

### **Expected Outcomes**

Expected outcomes include a 20 percent reduction in malnutrition among school-aged children, grades one through four. Up to 650 families will have access to a consistent supply of safe vegetables, translating into a 40 to 60 percent savings at the household level.

### **Future Plans and Program Needs**

IIRR has an ambitious plan to spread BIG technology to 5,000 schools throughout provinces in the Philippines. This program will integrate environmental education, nutrition, health and climate change adaptation.



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