

PROVIDING MORE FOOD AND INCOME FOR SELF-RELIANT FAMILY FARMS

Modern agricultural methods have brought spectacular increases in productivity – from fields, from animals and from people. But in spite of all the research that has gone into increasing crop yields, growing larger animals, and saving labour through chemical herbicides, pesticides, fertilizers and new technologies, and in spite of the fact that food production has increased dramatically, almost 800 million people still go hungry.

The reason? The answer is quite simple. Most farmers in developing countries are poor. They either cannot afford or cannot find the necessary inputs to improve their production, and they are not connected to markets to buy or sell food. So as the large landholders who have the

resources to purchase the inputs and learn to use them are able to increase their holdings and their incomes, and as international trade brings down prices even in local markets, small farmers become less and less able to compete or, in some cases, even to survive.

Ironically, one solution for these small farmers has been on their farms for centuries. What is now called "organic agriculture", put forth as a modern solution to environmental problems caused by

chemical-dependent farming, is actually an improved form of the farming traditionally practiced by small farmers – farming that relies on efficient use of available resources such as soil, water, local breeds and varieties of animals and crops, and a mix of modern and traditional ecological knowledge.

For countless generations, small farmers in developing countries have inherited and managed complex farming systems adapted to their local conditions. These individual farming systems have helped them survive harsh environments, meet their family's food needs, contribute to local/regional markets and still conserve their natural resources. Many of these farmers would be amazed to know that what they learned from their parents is now part of a modern, global movement.



organic agriculture and FOOD SECURITY

Another irony is that many small farms that never had the advantage of technological advances could now be

considered "organic", although "organic by default".

An estimated 450 million farms were by-passed by Green Revolution technologies such as mechanization, irrigation, improved seeds and breeds, and synthetic fertilizers and pesticides. These include countless low-level technology systems which feature polycultures, agroforestry, integrated crop-livestock systems and productive agro-ecosystems well adapted to local conditions. The absence of these technologies does not automatically make farms organic, but makes it easier for interested farmers to upgrade their farms to organic by adding modern scientific organic practices to their traditional farming methods.



Organic agriculture stresses diversification and adaptive management which significantly decreases vulnerability to weather vagaries or other factors. In spite of a misconception that agro-ecological systems cannot increase

agricultural productivity, the reality is that multicropping increases yields significantly. A diversified organic farming system increases farm production by 20 to 60 percent as compared to a traditional low-input system and, at the same time, improves stability by improving soil and water quality and the ecological



services that support agriculture. These methods may not achieve the same yields as the high input systems, but they provide a path to increase both yields and incomes. Farmers can use available resources without fear of major losses, such as those incurred by farmers who often see their expensive inputs washed away by unexpected rains.

It all adds up to a direction for improving food security that is highly promising. Farmers do not need to be certified to know that if they adopt organic agricultural systems and yields become healthier, more dependable and plentiful, their ability to feed their families, either with the food they produce or income from products they

sell, will also increase. Even in areas with poor resources and no access to markets, farmers can improve their family food supply if they have access to extension or training to re-learn to farm organically, and are willing to replace the external inputs with their own labour. The result will be an improved return on their labour investment in terms of better income.

The success of organic agriculture in improving food security is there for those who wish to see it. What is needed now is more studies to increase understanding of why it works and to develop methods for scaling up and sharing what has been learned.

