

Bringing agriculture and health workers together

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World Neighbors traditional focus and expertise are rooted in agricultural development. Recognising that great synergies exist between agriculture and health and looking for ways to improve our work, about ten years ago we sought to interact more with health professionals. We found that while we shared common hopes and aspirations, we often had very different ways of understanding poverty and how to help communities to address it. But we were able to come together around a common priority: good food for good health. In agricultural terms, this means food that is produced in ways that are healthy to both the farm and the farm family; in health terms, this translates into food that is nutritious and contributes to human health.

Once we discovered the importance of working towards good food and focusing on the imperative for adequate quantity and health quality of food to prevent childhood malnutrition, the challenge became learning how to work together. Like many organisations, World Neighbors (WN) and its partners work through two central and interactive programme themes



Farmers take nutritional needs into account when deciding what to grow.

Enabling local potential

“Positive deviance” (PD) is an approach that looks at local examples of good health and nutrition as local “seeds of change”. PD involves organising women and their children in two week cooking and feeding sessions. The approach actively seeks out the caregivers of children who are “positively deviant” (i.e., well nourished and healthy) and brings them together with the caregivers of children who are under or malnourished to share their caregiving experiences, their tips, and their recipes. During the sessions and home visits the women explore the meanings, conditions, and reasons for health – both “good” and “bad”. This was the basis of our work in Mindanao, one of the Philippine islands.

WN and its local partner, SIKAP, work in villages where livelihoods are dominated by the local oil palm plantations, and where the dominant business is one of natural resource extraction. In the villages of Mate and Bayugon 2, many men and women work from dawn to dusk as day labourers on the plantations, while grandparents and older children stay at home to take care of the young children. Those not working on the plantation weave and sell “amakan” or rattan panels. Some families supplement their income through backyard gardening; others cultivate small, sloping plots of land, with a primary focus on cash crops rather than domestic consumption. Many of the indigenous peoples who live in these villages prefer the more traditional pursuits of foraging for food in the forest and small-scale gold mining.

In this context, the availability of adequate and good quality, nutritious food was a major issue. Primary caregivers are absent for most of the day, while the income earned by working on the plantations is uncertain, provided on a day-to-day basis. Food that is produced locally tends to be produced with chemical inputs and aimed for sale in local markets. To address this issue, World Neighbors, the SIKAP staff and community leaders decided to focus on nutrition as a programme entry point. We opted for the “positive deviance” approach and held a workshop for community volunteers to learn about this approach. For a period of two weeks, selected caregivers came together, cooked together and learned together. The children benefited from extra inputs to their diets, the caregivers benefited from learning new ways to care for the children, while local health workers benefited from learning a new approach to caring for malnourished and vulnerable children. In most cases, the groups agreed to continue to meet on a regular basis, thereby strengthening long-term community capacities in addressing health issues. This was all done with no external inputs – all food cooked together was from local sources and easily available to all participants.

By sharing their experiences, families realised that backyard gardening was something they could do to help improve the health of their children. It became evident that many of the families of those children who were “positively deviant” had home gardens where they were growing fruits and vegetables. Since the PD groups were formed, the number of families with backyard gardens has increased, improving their access to fruits and vegetables. A number of PD group participants have asked to learn about low-external input and sustainable farming. Learning visits have been arranged: training and

– sustainable agriculture and rural livelihoods, and community health. The concepts and practices of food security and nutrition offer important “linkages” between these distinct, but inter-related areas of action. In addition, tackling hunger and malnutrition goes beyond food production, and includes aspects such as food preparation, access to clean water and sanitation, cultural practices, gender issues, child spacing and child care.

In this article we offer three examples to illustrate how we have worked to strengthen interactive sustainable agriculture and community health efforts. Each of these examples emphasises the vital role of women in improving the nutritional well-being of their families, and the way communities and WN partners are working to ensure that the “linkages” of health and agriculture can be made stronger.

technical support on sustainable agriculture has been provided; information on safe water management and good hygiene practices has been sought. Local families are now encouraged to look at the health of the wider environment and at how this affects the health of their families. This was all stimulated by focusing first on nutrition, on what we eat and on what we feed our children.

Questions, not answers

When solutions can be found through local experience, we view our job not to provide answers to problems but to help people see the opportunities that lie around them. As a result, we focus our energies on asking good questions and facilitating discussions and analysis of problems and possible solutions. With regard to helping rural people better understand nutrition, we found that it can be effective to begin by helping them to critically explore lessons from agriculture. Through experience with soil and plant fertility, for example, people can gain insights into the conditions of their own health status.

As people make “linkages” between new learning and their own practice-based experiences, the lessons are more powerful. More importantly, the critical analysis skills that are sharpened through this process have a longer and more lasting impact on people’s lives, even as the problems and contexts change in the future. Our work in West Timor, Indonesia, showed how questions may be more useful than answers.

Since 1997, WN has worked in West Timor in partnership with the local NGO Yayasan Mitra Tani Mandiri (YMTM) in the development of an agro-forestry programme. Over the years, people there have attained a high degree of awareness about the relationship between health and agriculture. As a result, this programme has come to emphasise organic farming. Growers had not taken into full account the nutritional needs of their families, and there was a strong focus on agriculture for sale in the market rather than for family consumption. Nevertheless, rural families recently have come to prioritise their own food security, health and nutritional needs. Consequently, YMTM and farmers groups have begun to approach the issue of farm planning not just from a production point of view but also from a “health needs” point of view. In doing so, they pay particular attention to how farming families can meet their own nutritional needs throughout the year.

The most significant changes that communities express about the YMTM programme are associated with improved capacities and skills in farm planning, as well as changes in social relations within the family – changes that have influenced farming practices. In farm planning, decision-making is now much more equal between husbands and wives, and women have enhanced land ownership rights where previously land ownership was dominated by the men. This has resulted in more balanced production decisions, with vegetable production for domestic consumption now playing a more critical role. Through this increased production of organic vegetables it is now easier to meet family nutritional needs. Women also have more ownership over large family assets, as witnessed by the fact that it is now often the women that manage the family cattle. Many of the women comment that they feel their situation is now more stable, with the availability of a much wider range of food throughout the year.

Linking the technical with the social

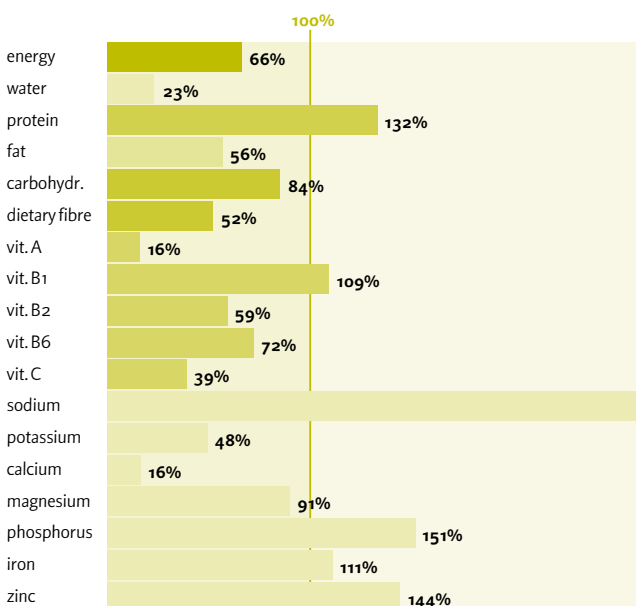
Beyond just helping people to eat well, we feel that it is important that people come to understand why things have ended up being the way they are. For example, when we

compared the nutrient charts of males and females in the Andes, we commonly found that men and boys ate better than women and girls. This led us to new and deeper questions about the social roots: how did this come to be? What can we do about it? Based on our experience with participatory methods and gender analysis, we have learned that information alone usually is not enough for enabling change. How we go about teaching, and in particular facilitating learning and interactions, can produce very different effects on participants. This became clear from our work in Ecuador, where we worked with Andean women to better understand food sources and nutrition

Andean women own much practical knowledge over food. Nevertheless, they are often unclear about the nutrient content of foods. This information is especially important for pregnant women and mothers, as they are highly vulnerable to nutrient deficiencies. We drew on the PD methodology to learn about the women’s diets and that of their children, and found out that child health is not simply a function of wealth. A mother’s knowledge of diets and hygiene can be particularly important. Greater clarity over such matters can help mothers identify new ways of improving their family’s health.

The 24-hour recall is a survey of food and drink consumed over the previous day. Health promoters conducted this activity with mothers to help them better understand the nutrient intake of their children and family. We also worked with groups to chart the general nutrition potential of typical meals and combinations of foods. To convert food intake to daily nutrient requirements, we used a portable computer and a free software programme called Nutri-survey, which automatically translates what one eats to nutrition equivalents. By typing the results from the 24-hour recall into a table, the user-friendly programme produces a bar graph based on standard dietary requirements (by age, sex and biological state, e.g., pregnancy) for different food intake (taking into account quantity and preparation) (see chart). The readouts contain few words, and with a little help, participants learn to understand the bar graphs.

Chart 1. Analysis of one woman’s daily intake in the Central Highlands of Ecuador



Percent fulfillment of the recommended nutrient intake.

Working with participants to understand and compare outcomes, we placed special attention on nutrition gaps. Because food intake varies from day-to-day, it is not necessary nor expected that a single day's diet is satisfactory for all nutrients. We discussed how other days may differ and how some of the nutrient gaps would be filled, or not, on other days. We placed special emphasis on those nutrients that are likely to be inadequate even over many days of observation.

Together we explored local food sources by incorporating them into the programme and watched how bars representing particular nutrients moved up or down. People were often surprised by the high nutrient content of traditional foods. Depending on the group's interests, we also discussed how diets differ by gender or how they may have changed over the last few decades. We talked about how non-dietary factors, such as lack of rest, hygiene, and disease may affect nutrition and health. This led to families adjusting their diets and beginning home gardens, as shown in the box. Over time, we came to link these discussions with anthropometric measures and growth charts of children, as well as with agricultural interventions, such as the design of home gardens.

Putting learning into practice

Rosa is a typical rural mother living in Bolivar, Ecuador. She is concerned about the health of her family. Nevertheless, without clear information on the nutrients of different local foods, ensuring her family's nutrition was difficult. By conducting 24-hour recalls and translating them through the Nutri-survey programme into understandable bar graphs of recommended daily allowances, she learned to see the strengths and weakness of her family's diets. In particular, she identified a number of clear "nutrition gaps". For example, her children were not receiving enough vitamin A. Through discussions with the group, she discovered that sweet potato and *jicama* (an Andean root) were local food sources that were high in this vitamin.

We also took time to compare the diets of males and females in each family. Rosa discovered that her diet and that of her daughter were markedly worse, in particular during their menstrual cycles, than that of her husband and two boys. This helped explain why she and her daughter were always so tired. After discussing the effects of the menstrual cycle on a woman's body, we identified different local food sources, in particular different leafy vegetables such as spinach, which could improve their iron intakes. Her family liked spinach, but they had lost the habit of eating it.

Together with the farmer extensionist, Rosa looked at ways of incorporating their particular findings into the design of an improved home garden. She decided to dedicate more space to sweet potato, *jicama*, and spinach, among other nutritious vegetables for her family. In addition, we discussed the role of hygiene in nutrition. Regardless of how well we eat, illness can prevent nutrients from reaching our body. Having access to clean water and proper hygiene is essential to preventing diseases, and in particular those that cause diarrhoea.

Future challenges

Despite progress in helping partner organisations to discover the linkages between health and agriculture, we realise that there is much room for improvement. Often our disciplinary biases – be they in agriculture, health or other fields, blind us to certain realities. As a result, our work is vulnerable to a "disconnection" between having more food available (either through improved production or increased income) and achieving better nutrition. At the very least, we now are aware of this situation and intend to change it.

Many challenges lie ahead. In particular, we feel that special attention needs to be provided to the deep disciplinary biases of our staff and partners, in particular between agriculture and health workers, which continues to create barriers of understanding and action. There is a need for more fundamental change in the way we see, think, and do; this has serious implications for how we engage people and communities in development

Commonly, development professionals have created an arbitrary line that divides the sexes between agriculture and health. Without deliberate attention to such gender constructions, the benefits of "good food for good health" will continue to be distributed unequally. When women and girls are unhealthy, the entire family and community suffers the consequences. Additionally, we have much to learn in understanding the interactive relationships between our agriculture, degrading environments, technology (such as bio-engineering), market integration and the nutritional value and quality of food. Our partners and WN plan to continue exploring such issues. We hope others will join us in the further exploration of the interactions between health and agriculture.

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