Mega programmes (MP)

Mega programs are new trends integrating various research disciplines with objectives:

1. Create and accelerate sustainable increases in the productivity and production of healthy food by and for the poor. (―Food for People‖)
2. Conserve, enhance, and sustainably use natural resources and biodiversity to improve the livelihoods of the poor in response to climate change and other factors. (―Environment for People‖)
3. Promote policy and institutional change that will stimulate agricultural growth and equity to benefit the poor, especially rural women and other disadvantaged groups. (―Policy for People‖)

Activities

Agriculture for improved food security, diet quality, and nutrition focuses on making nutritious foods more available and accessible to the poor throughout the year. Nutritious foods include animal-source foods (fish, meat, eggs, and dairy products), fruits and vegetables, biofortified staple foods, and wild foods with high nutrient content.

Strengthen food systems that increase the availability and accessibility of nutritious foods such as animal-source foods, fruits and vegetables, biofortified foods, and wild foods.

Use agrobiodiversity to improve nutritional diversity. The first set of activities in this area will assess patterns, levels of use, and the role of local biodiversity in people's diets. This information will be used to develop and evaluate approaches aimed at enhancing current use of local foods (including local crops, indigenous vegetables, animals, and wild fruits) to contribute to greater dietary diversity and increase the availability of nutritious crops for production and consumption year round by vulnerable populations.

Develop tools to increase the demand and supply for nutrient-rich foods along the value chain, including bio-fortified staples as well as local foods from agro-biodiversity and from open-access and common property resources (such as fisheries, non-timber forest products, and wild foods). The goal of this activity is to educate consumers, producers, and other value-chain actors in the production, processing, preparation, and consumption of nutritious foods.

Develop new technologies and strengthen traditional ones for small scale food processing to improve the value-added of farm produce and enhance women's income-generation opportunities. Post-harvest practices and processing (such as drying of fish and vegetables) can help preserve foods, reduce the anti-nutritional factors, and expand their season of availability. Research on the retention of nutrients during processing is important to ensure best practice to maintain nutritional quality. Research on pre- and post-harvest management options to monitor and reduce mycotoxin levels in processed foods is also critical to their safety and marketability. New research could also test the feasibility of small-scale, staple-food fortification at community mills using vitamin/mineral pre-mixes. Another promising area is the local production of ready-to-use therapeutic foods (RUTF), which are used for home-based rehabilitation of severely malnourished children. Local production can reduce product costs, benefit local agriculture, generate employment and income, create ownership among communities, and most importantly, save lives.

Design, implement, monitor, evaluate, and scale up nutrition-focused agriculture programs and link them to broad social protection policies. Agriculture programs such as homestead food production (HFP) or home, school or community gardens, are designed to integrate women's empowerment and nutrition interventions into agriculture programs focused on the production of nutritious foods such as fruit and vegetables, biofortified staples, small animal husbandry, and/or fish ponds.
Expected outputs. The research activities will generate broad knowledge on the following:
1. Constraints to fruitful collaboration between agriculture and nutrition;
2. Effective mechanisms to foster collaboration between agriculture and nutrition, and to mainstream nutrition within the agriculture sector;
3. Innovative advocacy tools to raise awareness about nutrient-rich foods and diet diversity;
4. Value-chain approaches for stimulating demand for nutritious foods;
5. Role of agrobiodiversity in increasing diet diversity and nutritional status within different contexts, and approaches to reinforce its deployment in sustainable food system;
6. New models of agriculture-sensitive programs, and knowledge of their cost effectiveness and impact, and of what is needed to scale them up; and
7. Methodologies to evaluate the implementation, impact, and cost effectiveness of integrated multi-sectoral programs.
8. Methodologies to effectively monitor and reduce mycotoxin contamination in harvested commodities and processed foods

Expected outcomes. The research outputs will generate the following outcomes:
1. Better connected communities of knowledge and practice—from the agriculture, health, nutrition, and social protection sectors;
2. Innovation platforms and learning alliances bringing together farmers, extension workers, implementers, and other stakeholders;
3. Nutrition and health considerations mainstreamed in agriculture technology development in target countries and regions;
4. Policy recommendations and regulatory frameworks developed in support of the mainstreaming of agrobiodiversity use across sectors;
5. Widespread knowledge and awareness of the importance of nutrient-rich foods and diet diversity, including within-crop (cultivar) diversity, used in policy and practice; and
6. Agriculture-sensitive programs successfully implemented and scaled up, and contributing to overall social protection agenda.