



Agriculture and Environment Strategy

2009-2014



Catholic Relief Services

Agriculture and Environment

Strategy

2009-2014

Since 1943, Catholic Relief Services has had the privilege of serving the poor and disadvantaged overseas. Without regard to race, creed, or nationality, CRS provides emergency relief in the wake of natural and manmade disasters. Through development projects in fields such as education, peace and justice, agriculture, microfinance, health, and HIV and AIDS, CRS works to uphold human dignity and promote better standards of living. CRS also works throughout the United States to expand the knowledge and action of Catholics and others interested in issues of international peace and justice. Our programs and resources respond to the U.S. bishops' call to live in solidarity—as one human family—across borders, over oceans, and through differences in language, culture and economic condition.

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TABLE OF CONTENTS

Acknowledgements	iv
Introduction	5
Four Pillars of Agricultural Intervention	7
Guiding Principles of the Agriculture and Environment Strategy	8
Pillar 1. Agriculture for Emergency Response	15
Context	15
Current Focus	15
Emerging Issues	17
Future Directions	19
Partners	20
Pillar 2. Agriculture for Health	23
Context	23
Current Focus	24
Emerging Issues	25
Future Directions	26
Partners	27
Pillar 3. Agriculture for Environment	29
Context	29
Current Focus	30
Emerging Issues	32
Future Directions	34
Partners	36
Pillar 4. Agriculture for Income	37
Context	37
Current Focus	39
Emerging Issues	41
Future Directions	43
Partners	46
Conclusions	47
Bibliography	49
Results Framework	53

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INTRODUCTION

Catholic Relief Services is a leading faith-based humanitarian organization that has worked to support people in need since 1943. From our initial focus on post war recovery in Europe, CRS has grown into a global development agency with programs in over 100 countries that work across faiths and national boundaries. In all of our work, our mission is to improve the lives of the poor and most vulnerable. We are focusing our agricultural activities on improving the prospects of those living on less than \$2 per day and giving particular attention to women, children, and those suffering from disease.

Over the past 40 years CRS has maintained a long-standing commitment to agriculture in developing countries, as we believe rural communities need greater support in their agricultural endeavors to improve their food security, nutrition, environmental stewardship and income. Despite its importance, and the high numbers of poor people in rural areas, agriculture has received declining support for many years. Lack of investment has led to stagnation in productivity and poor uptake of improved technologies, with productivity gains and innovation being particularly low in Africa, due to lack of basic infrastructure, ineffective financial markets and poorly structured market access.

A changing environment for agriculture. The past 2–3 years has seen renewed interest in agriculture, as highlighted by the *World Bank Development Report 2008* which underlined the vital role that agriculture plays in reducing rural poverty. Contributing to this renewed interest has been the unprecedented price volatility on the world commodity markets. From 2004 to 2007, prices of agricultural products steadily increased, then doubled in 2008 along with other commodities as a result of surging oil prices and capital flight from beleaguered stock markets. The initial rise in agricultural prices led to immediate fears of a global structural change in food prices that would threaten both rural and urban food security, especially in food deficit countries that had become reliant on cheap imported food. However, fears of peak oil and inflation in early 2008 were later replaced by the onset of a global economic recession, deflation, and the possibility of depression. Extreme volatility on global markets resulting from the collapse of credit and derivatives markets led to trillion-dollar rescue plans in the super economies. In such uncharted economic territory it is unclear how markets



Low-labor gardens that help the chronically ill achieve better nutrition are among the agricultural innovations promoted by CRS.

Approximately 75% of people in developing countries live in rural areas. Up to 85% depend upon agriculture for employment, and agriculture contributes up to 50% of their GDP.

—World Bank's World Development Report 2008

will perform in the coming three to five years. However, with global demand declining it is unlikely that food prices will return to 2008 highs in the next five years and prices may return to the base levels of the mid 2000s, when farm incomes were at or just above production costs.

Farmers that rely upon rain-fed agriculture are particularly vulnerable to the increasing effects of environmental distress and lack of global mediation plans means that farmers operate in an increasingly risk prone environment.

A rapid review of the agricultural sector of poor developing countries over the past 20 years reveals that change has been driven by (i) population growth and urbanization, (ii) reduced government intervention, (iii) declining terms of trade, (iv) weakening market access and (v) greater volatility in both climate and economic conditions. Steadily rising populations have increased pressure on resources, with increased demand for food and services leading to reduced farm plot sizes and overburdened infrastructure. In many poor countries, the role of government in agriculture markets has been radically reduced, through programs that have dissolved government marketing boards, eliminated farm subsidies, and reduced extension services. The combined effects of market liberalization and globalization have led to a significantly more competitive marketplace for smallholder farmers. In Africa, smallholders have lost market share in traditional cash-crop markets, and many are currently falling out of more recently established “higher value” export markets, due to increasingly stringent food safety and phyto-sanitary requirements. The effects of more extreme weather are leading to loss of produce and lives through more severe storms, floods, and droughts. Farmers that rely upon rain-fed agriculture are particularly vulnerable to the effects of environmental distress, and lack of global mediation plans means that farmers operate in an increasingly risk prone environment.

Purpose of the strategy. Given the complex contexts in which CRS works, this new strategy was developed to take into account major changes that have occurred in the agricultural sector. Its aim is to provide our field staff and partners with general guiding principles to improve our support to poor, agriculturally-dependent rural communities and expand work in urban and peri-urban areas over the next five years. The strategy was developed in collaboration with public, private, and community-based partners in over 100 countries throughout Africa, Asia, Latin America, and the Middle East.

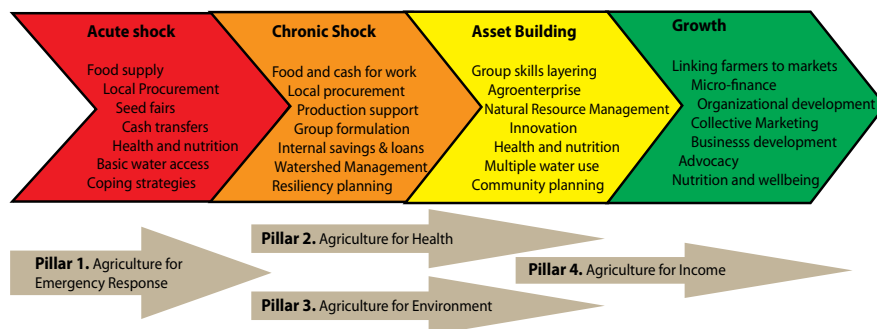
FOUR PILLARS OF AGRICULTURAL INTERVENTION

The new strategy is made operational through four interrelated thematic pillars. This framework provides us with the flexibility to capture the broad range of interventions that span the needs of the people we serve, in a continuum from relief to growth. The four agricultural pillars are:

- **Agriculture for Emergency Response**
- **Agriculture for Health**
- **Agriculture for Environment**
- **Agriculture for Income**

The activities that fall within these pillars are designed to assist people across a continuum of needs from slow and rapid onset emergencies to long-term development, as shown in Figure 1.

Figure 1. Entry points in a relief-to-growth continuum with intervention packages



Supporting agriculture through relief to growth. Following episodes of *acute shock*, such as earthquakes, cyclones, and floods, we focus our efforts on meeting the immediate nutritional, medical, shelter and water needs of distressed communities. Once stabilized, we quickly move to interventions that draw on community strengths to re-establish local food and market systems. In emergency situations we assess the appropriateness of food distributions from transoceanic shipment and increasingly from alternative options, such as local procurement systems and cash transfers where market conditions and funding instruments allow. To revitalize production systems and provide choice to affected population, CRS has championed the use of seed vouchers and fairs to provide farming families with rapid access to a range of locally adapted seeds through local trading systems. Where possible, we are adjusting our practices to support local markets and business structures.

In response to chronic shock caused by drought or conflict, CRS uses a range of support methods to rehabilitate food and trading systems. This part of the strategy includes working with communities in food-for-work, vouchers, and cash-for-work schemes to rebuild and renew local infrastructure that lays the foundation for improving water management, bringing fields back into cultivation, and providing market-access roads.

In asset building, we place increasing emphasis on skills transfer and building trust within communities to help them move swiftly out of the emergency phase to a recovery mode. Using existing groups where possible, or organizing new groups where necessary, we initiate skills learning, building on traditional knowledge or practices and contextual needs. Skills acquisition can range from improving crop production to improving nutrition through home gardens, better financial management through group internal savings and lending, and testing more resilient production systems that use new drought and disease-resistant varieties of traditional staple crops.

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Finally ***through development programs*** we promote multiple skills within farmer or self-help groups to improve sustainable production and agroenterprise methods that link farmers to markets. CRS promotes scaling by organizing farmer groups within specific value chains and working with them to bulk quality produce and where possible use collective marketing to access more remunerative markets. At all stages in the relief-to-development continuum CRS is placing greater emphasis on market-led methods to facilitate recovery and sustainability. Through these actions we aim to foster greater resilience to future shocks and improve the economic outlook of the poor.

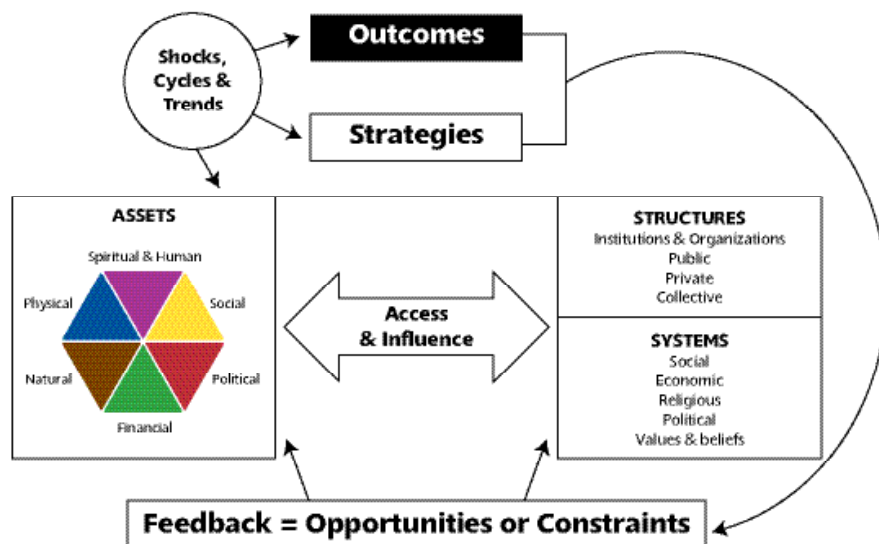
GUIDING PRINCIPLES OF THE AGRICULTURE AND ENVIRONMENT STRATEGY

As part of our strategic shift towards greater emphasis on household resilience, market engagement, and local empowerment, our efforts in site analysis, intervention planning, and community coinvestment are based on the following principles.

Promoting Integral Human Development. The goal of all our work is to improve Integral Human Development (IHD) for the poor. To articulate our holistic goals, CRS developed the IHD framework (see Figure 2) to help understand and respond to the complex needs of poor and vulnerable communities. The framework, derived from Catholic social teaching, assists

us to design more comprehensive interventions that enable people to lead full and productive lives, meeting their basic physical needs while living with dignity in a just and peaceful environment.

Figure 2. The Integral Human Development Framework



To achieve sustainable change, CRS works with farming families to identify and access market opportunities for combinations of existing or new products.

Area / territory-based. Our methods are focused on improving livelihoods of the poor within a defined geographical area. Given the vital role that water plays in agriculture, the watershed is becoming the preferred unit of scale for intervention. The geographical focus not only defines the interventions and products for agriculture, but also strengthens the monitoring process and facilitates institutional development and scaling-up processes with partners.

Market-led. To achieve sustainable change, CRS works with farming families to identify and access market opportunities for combinations of existing or new products. We strongly advise farmers with limited experience in marketing to start agroenterprises with products they know. As facilitators and farmers gain experience in market engagement, we move to scale towards higher-value market options. We build capacity in our staff and local partners to focus not only on the needs of farmers but also on “chain wide thinking” so that we consider all the aspects in value chain development¹ including production, financial, and service or communication needs.

Supporting farmer organizations. A major lesson from the past five years has been that farmers need to be organized if they are to learn more efficiently and be competitive in the global marketplace. To engage markets effectively, farmers need to understand markets and work together to produce goods that



Voucher-based programs have been shown to be effective market-led responses in both relief and development settings.

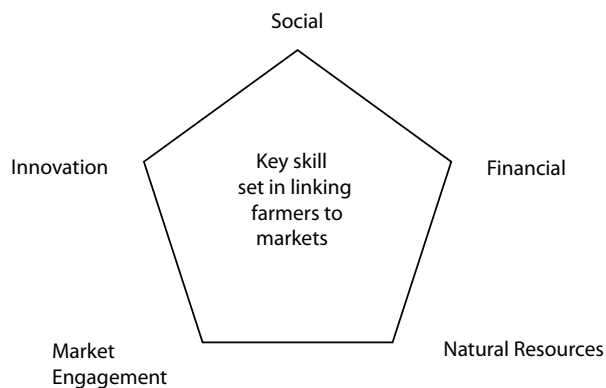
¹The terms market chain, productive chain, supply chain and value chain are used interchangeably in this text, to mean the transactions involved in enabling agricultural goods to flow from farms to consumers.

will sell, rather than simply trying to sell what they have produced. Taking lessons from the world of microfinance, we are working with our partners to get the basic “unit of change” right. Based on our research (Aldana, et al. 2007), we propose that neighboring farmers of similar backgrounds, organize in groups of 15–25 people. The numbers are low in order to build trust necessary to enter into business transactions. These basic groups are provided training in (i) group formation and democratic decision-making, (ii) savings and loans, (iii) profitable production methods, (iv) agroenterprise and (v) innovation. These skills are not a prescribed list but provide options to improve group cohesion and social capital, leadership, resource management, production systems, and market performance.

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Building trust. Maintaining trust among farmers who only work together occasionally has been a major problem with groups formed exclusively for agricultural production. Therefore, we are promoting the approach that farmers come together first as a savings group, learning basic financial skills and loaning their savings to accelerate the group fund. This financial bond brings people together and provides a joint incentive to collaboration. Over time, groups can save a considerable sum of money, and with the merger of several groups it is possible that such a fund can be of sufficient size to support input purchases and agroenterprises. Investment is needed for virtually all new agricultural development and for the vast majority of rural communities where formal banking and traditional microfinance options are not available. Therefore, we are moving towards promoting savings-led financial systems as a means to develop skills, initiate more robust groups, and develop capital for investments in new agricultural ventures.

Figure 3. Farmer Group Skills



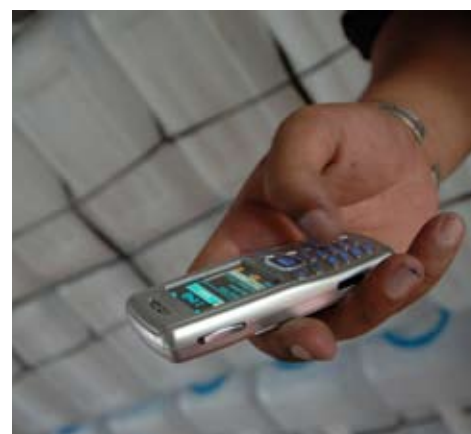
Using technology. A clear lesson from the past five years of agricultural work has been the need to provide farmers with access to improved technologies that raise productivity. Working closely with the Consultative Group on International Agricultural Research (CGIAR) and National Agricultural Research and Extension Services (NARES) has proven to be a successful means of accessing new agricultural technologies and methodologies, including new higher yielding varieties, improved production methods, better water use practices, and methods to analyze and engage in agricultural markets.

Responding to Gender. The role of women in agriculture and in farmer groups is a particular area of focus for CRS' new strategy. We aim to invest in activities that will promote greater decision-making roles for women in agricultural production and over assets such as land rights and profits. Activities will promote the genuine participation of women and work towards more just and equitable livelihoods. The strategy will seek to analyze and address social inequalities with respect to gender differences and power dynamics across our agricultural activities. Although we have had considerable success in bringing women into savings and self-help groups, we have yet to transform that social capital into economic capital. We believe this will require differentiated budgets specifically focused on women's activities in agriculture and tracked with specific indicators, such that resources that target women achieve the desired goal. Gaining traction in agricultural gender programming will require that we develop best practices in support of greater equality in both on and off-farm agricultural interventions and match resources to improve our performance in this area.

Scaling up. A large part of being competitive in agriculture relates to economies of scale. Therefore, a new and critical component of our agricultural work is to improve our understanding of and ability to develop interventions and operational processes that can scale. Scaling methodologies will be incorporated in pilot tests such that successful interventions can be made available to large numbers of beneficiaries quickly and without an entire redesign.

Accessing mobile information. The transformative expansion of mobile phone and Internet options in developing countries will become increasingly integral to all of our operations, extending our reach with the rural and urban poor and in revealing better and more efficient ways of doing business. Combinations of technologies, mobilized digital information systems, financing and better organized farmers working within specific value chains will play an ever more important role in our ability to facilitate scaling

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Cell phones and other technologies enable farmers to access market information and other key data.

processes. We are testing computer-based extension systems for learning and for data and skills transfer to expand our reach, reduce costs, and improve data capture and accountability.

Developing new business models. Another key part of our new strategy is to foster better business relationships among chain actors and develop more equitable business models for poor smallholder producers. As a first step we are strengthening our links with researchers, extension workers, traders, processors, and larger agribusiness companies to encourage chain-wide thinking and action for selected products. Entry points that are being investigated within our business models include (i) technology deployment combined with collective marketing, (ii) contracted sales to corporate buyers through cooperatives or specialized traders and (iii) certified trade via schemes such as fair trade. CRS has worked in the fair trade movement for many years in Latin America, and while we recognize that 100% fair trade represents only a fraction of global agricultural trade, this pioneering business model provides valuable trading principles that are being adapted into mainstream commodity markets to promote more equitable trading for smallholders.

Underlying any new intervention in agriculture is the need for investment in new technologies and systems.

Linking agriculture to finance. Underlying any new intervention in agriculture is the need for investment in new technologies and systems. Lack of access to financing is a critical impediment to agricultural development in areas without formal banking facilities. In the past five years, CRS has fundamentally changed our approach to microfinance, by divesting in microfinance institutions and refocusing on savings-led methods with poor communities. Agriculture requires a similar rethink, so that new financial instruments can be developed to support agroentrepreneurs.

Meeting rural and urban needs. Virtually all of our previous work has focused on meeting the needs of rural populations, which include 75% of the poor. However, urbanization is accelerating, and urban slums are the fastest growing living places in many parts of the world. Analysis of the effects of the recent global food crisis, which highlighted the plight of the urban poor, requires us to take a more balanced view of the food-security needs of urban as well as rural households. The urban poor are particularly vulnerable to financial shocks and food inflation, as they have no land on which to grow their own. This is especially important for people living with HIV and other vulnerable groups; many of our HIV beneficiaries live in urban or peri-urban areas. CRS will therefore work with partners to develop new systems to monitor and target the urban poor in new agricultural programs.

Learning and innovation. Successful engagement in agricultural markets requires continuous skills building, information sharing, and innovation. CRS is committed to staff development to build the financial, technical, and project management strengths of its staff, church partners, and other local partners. Much of the thinking in this strategy emerged from a series of iterative capacity-building sessions, entitled the “agroenterprise learning alliance,” involving CRS, the International Centre for Tropical Agriculture (CIAT) and partners. The agroenterprise learning alliance provides agriculturalists from various regions with an opportunity to meet on a regular basis to review good practices and to develop more effective methods to reduce rural poverty. This learning process continues to guide our thinking, as do the expanding links we have with other sectors at CRS and from other agencies—all of which improves our reach, competence, efficiency, and accountability.



Farmers learning new farming methods such as raised beds.

PILLAR 1

AGRICULTURE FOR EMERGENCY RESPONSE

The purpose of Strategic Objective 1 is to support vulnerable communities to (i) prepare for and respond to disasters, (ii) manage their own recovery, and (iii) strengthen their resilience to future disasters.

CONTEXT

CRS' first commitment is to respond immediately to emergencies throughout the world when they occur, with lifesaving interventions and a plan for recovery. We invest 30–40% of our resources in emergencies, and have specialized rapid response teams. Agriculture is a key part of our relief and recovery strategy. Rapid-onset events brought about by intense storms or drought cause catastrophic damage to life and property. In all cases, post-disaster agricultural interventions are required to repair lost lands and broken systems caused by natural and man-made calamities. CRS works on physical repairs, social and market support, and increasingly on local policy reform to build back better structures and systems.

In the past 10 years, the need to respond to emergencies caused by severe weather has steadily increased, consistent with research findings that link uncontrolled carbon emissions with greater climate volatility and climate change. Based on current trends, we anticipate that severe weather events such as droughts and floods will become dominant conditions driving our emergency program response, as will conflicts arising from increased competition for natural resources. We expect that, of all the problems we face, climate-related change will pose the greatest challenge to the poor in developing countries. Vulnerable communities will require new strategies to live with increased risk. They will need systematic approaches and long term planning to adapt livelihoods practices to better anticipate and mitigate the effects of disaster. Our agriculture in emergency teams are working to help people build their resilience.

CURRENT FOCUS

In our efforts to upgrade our ability to respond to emergencies, we have organized specialized teams and pre-positioned essential materials in highly



Cooking nutritious food for the hungry.

Some 262 million people were affected by climate disasters annually from 2000 to 2004, over 98 percent of them in the developing world.

Climate change will steadily increase the exposure of poor and vulnerable households to climate-shocks and place increased pressure on coping strategies which, over time, could steadily erode human capabilities.

—UNDP Human Development Report, 2007–2008

vulnerable areas. These forward teams and supplies help us to return disaster-affected communities to stability as quickly as possible.

The agricultural emergency response is a critical part of our intervention, providing basic essentials to farmers to revitalize farming. Increasingly, our staff are employing rapid methods to evaluate access to agricultural inputs and market functionality, so that we can intervene in ways that support local skills, input supply, and marketing structures.

The types of interventions depend on the acuteness and scale of the problem, the time frame identified for response, and the flexibility of the funds being used. We rely on transoceanic shipments of food especially when large numbers of people have been affected and to support monetization projects. However, transoceanic shipments have their limitations, and we are working to investigate alternatives. These include local procurement of food, the use of food vouchers to link consumers with local producers and traders, and also the use of cash transfers to boost purchasing power where market functionality and conditions permit.

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Market-friendly. As part of our shift towards more market-friendly interventions in emergency, CRS has worked in collaboration with CIAT since 2000 to develop and apply a seed system security assessment (SSSA) tool. This analysis led us to shift our focus from the problem of seed availability and quality to one of access. In response, CRS developed a combination of seed vouchers and fairs (SV&F) as an alternative to direct seed distribution. This move has been transformative. CRS, along with most seed aid practitioners, has adopted the SV&F approach, and an entire community of practice has emerged.

Gender. The emphasis on the farmer seed system in SV&F has enabled women to assert themselves as seed managers, both as producers and market vendors. At many fairs, women are the majority of voucher recipients, and women also make up a significant proportion of the small-lot seed sellers. CRS has expanded this approach to emergency service delivery to “livelihoods fairs” that provide vulnerable people access to tools, small livestock, cooking supplies and utensils, clothing, and other livelihood necessities in addition to seeds. We continue to look to innovate and improve our voucher-based systems using rigorous assessments.

Scaling options. In addition to the input sector, we have tested the vouchers approach for food distribution in Kenya (Rinck and Orzechowski, 2006). This approach was highly successful, and using vouchers to locate and distribute food has many advantages. The voucher system provides consumers with food from the nearest functional production or market area. The exchange can be made in local shops or at specialized exchange points or fairs, and the “buyers” can choose their staple of choice. The system allows people to exchange vouchers for food types that they want, provides income for local farmers and traders, and, most importantly, reduces product and transportation costs and uses local food quality norms. While voucher-based local procurement has been tested only on a limited basis, this approach has considerable potential for scaling, and for linking smallholder farmers into food-aid systems as buyers and sellers.

Other interventions that CRS uses include programs that offer resource transfers through a food or cash-for-work system. CRS is also working on local food procurement systems to assist in improving food security and at the same time support local market structures and systems. In the recent economic situation of low maize stocks and the highest maize and freight price volatility in history, the use of these more local and direct methods of transfer would have significantly increased our efficiency in supporting those in need.

EMERGING ISSUES

CRS is a leader in innovative emergency recovery and intends to leverage this experience to further strengthen our capacity and to assert greater leadership to the seed-aid practitioner community. Other new areas in which CRS is working include:

Improving access to improved seed. CRS, CIAT, and FAO are developing seed-based recovery systems to support farmer access to seed of improved varieties through both informal and formal seed systems. We strongly advocate for farmer rights, including rights to next generation genetically modified varieties. We are involved in a number of large seed initiatives, such as AGRA/PASS (Alliance for a Green Revolution in Africa program for African Seed Systems), WASA (West African Seed Alliance), and ECASA (East, Central and Southern Africa Seed Alliance). These activities are being initiated to assist with disaster transition and strengthen seed systems that link farmers to markets and increase resilience by increasing farm-family incomes. (See SO 4, Agriculture for Income.)

The voucher system provides consumers with food from the nearest area. The exchange can be made in local shops or at specialized exchange points or fairs, and the “buyers” can choose their staple of choice.

Local procurement. The food price crisis has raised fundamental concerns about how we respond to emergency food needs. For the past 40 years, direct provision of food through transoceanic shipment has been an effective means of support to those in need, particularly when food and fuel prices were falling and the U.S. government had large stocks of food available for transshipment. However, many donors are shifting emphasis from food towards more flexible response instruments, such as cash transfers, food vouchers, local procurement, and production subsidies. CRS is working with partners and donors to match the most suitable intervention to the emergency need and is advocating for policy changes to improve the efficiency of our support. The World Food Program is currently developing a major new initiative called Purchase for Progress. This project aims to provide farmers with access to structured local and regional food-aid procurement markets, and we aim to support this initiative with support to smallholder farmers.

As more severe weather events

adversely affect the poor on a more

frequent basis, we are need to shift our

interventions from response to a more

pro-active approach to climate change.

Market decision tree. In an attempt to increase our use of local market-based solutions to food needs, CRS is working with partners to develop a market based tool kit. This work is being done with colleagues from the World Food Program, World Bank, Oxfam, CARE and others to design methods that will enable us to make decisions on market responses within 3-week, 3-month and 3-year analytical time frames. Tests are already underway on marketing tools in emergency situations.

Climate change. As more severe weather events adversely affect the poor on a more frequent basis, we must find ways to shift our interventions from response to a more proactive approach to climate change. This work has started with our watershed management approaches that increase community resilience to drought and storms. More support is needed, however to understand landscape-climate interactions and how we can intervene at the most vulnerable points. We need to develop simple monitoring systems so that communities can assess their climate-based risks and invest in activities, such as land-stabilization schemes, that will reduce mudslides, river breaches, and loss of assets and lives in areas prone to floods—or conversely, manage water more effectively in areas prone to drought.

FUTURE DIRECTIONS

Given the vital links between emergency response and agriculture, CRS is working on a number of new issues to develop more efficient agriculture for emergency responses for the rural and urban contexts.

Diversify voucher usage. Increase the use of vouchers to support local and regional procurement (LRP) of food and inputs and find avenues to expand the usage of vouchers in food distribution to include alternative products to maize such as coarse grains (millet and sorghum), beans, cassava, and sweet potato. The use of vouchers will provide greater diversity for recipients, support more poor farmers in procurement activities, and provide new ways of reducing transaction costs in existing LRP methods.

Support input supply. Support measures are needed to provide fertilizer and seed vouchers or subsidies to enhance the production of basic staple food crops. The food price crisis has highlighted the need to go back to basics in support of specific staple foods, particularly those that can be grown in a country but are imported at lower cost. CRS has established a global rice initiative in partnership with WARDA, IRRI, and more than 15 countries, to enhance rice production in countries that currently depend on large imports of rice. This global initiative will start in Mali, Burkina Faso, and Madagascar.

Strengthen urban programming. As population trends lead to a greater concentration of the poor in urban rather than rural areas, we anticipate the need for greater support to poor urban populations. The food price crisis of 2008 highlighted the need to develop new systems for identifying those in need, create networks to engage vulnerable urban populations in slum areas, and establish entry and exit triggers for the distribution of food and cash based on specific beneficiary profiles. Our target groups include mothers with children below 6, mothers and children 6–24 months, and the elderly, etc. and our intervention triggers and indicators will need to include both nutritional and income-based selection criteria. CRS will work with partners to devise methods to support those who are unable to buy food in periods of high market volatility and we anticipate using a combination of cash transfers and food vouchers.

Deploy low-cost market information systems. CRS is working with Tradenet, FEWSNET, and Kimetrica to formulate low-cost marketing information services that can be used to monitor food prices, traded volumes, crop

CRS will work with partners to devise methods to support those who are unable to buy food in periods of high market volatility, and we anticipate using a combination of cash transfers and food vouchers.



Seed fairs support local marketing of local crops.



Seed fairs providing for new harvests.

performance, and income issues such as food inflation and credit availability. This information will be used to monitor food and income security in vulnerable areas, provide the basis for famine early warning, and assist in targeting procurement areas and identifying distribution points. Part of the work with Tradenet will be to explore and invest in ways to harness the power of mobilized information services by developing low-cost, mobile-phone-based information systems. These will be based on push-and-pull systems to have two-way communication with traders and farmer families. New types of mobilized systems will provide new windows to monitor early warning signals, based on multiple responses, and also provide entrepreneurial options to communicate between buyers and sellers. We see the role of the “development entrepreneur” as a means of accumulating richer hazard warning information and also strengthening more durable market links.

Advocacy and policy change. CRS is advocating for increases in both food aid and cash for Title II in response to additional needs that have emerged from the 2008 market crisis. CRS is also requesting increased OFDA funding for cash transfers and seed and fertilizer voucher programs. Part of this work is a request to expand the authority of Food for Peace to accommodate additional cash-based programs that complement food aid through a range of social-safety net and agricultural-support interventions targeted to the poor and food insecure. CRS is advocating for expansion in the number of countries reached by Food for Peace, targeting hunger hotspots where the use of food aid is appropriate to address the causes of food insecurity. CRS is also working to support an expansion of U.S. foreign assistance in agricultural development as well as direct government-to-government agricultural policy.

PARTNERS

In Agricultural Recovery from Disaster, partners include international NGOs such as CARE, Oxfam, Save the Children, Mercy Corps and World Vision; the World Food Program; local government ministries of agriculture and research institutions; and international research institutions and donors. Our front line is made up of the network of committed church and secular implementing partners who work directly with the poor.

USAID has been CRS’ largest donor in emergency response, providing steadfast support to millions of beneficiaries every year. Similarly, we are fortunate to receive an annual disbursement from the 60 million U.S. Catholics and people from other faiths of good will through our annual Operation Rice Bowl initiative.

CRS has also received strong support from OFDA to change the existing seed-aid paradigm from its current practice of direct seed distribution towards more voucher-led seed fairs and community-based approaches. CRS, under the OFDA-funded “Seed Systems Under Stress” project, works closely with CIAT to strengthen practitioner capacity for effective agriculture response to disaster. As a leader in innovative agriculture recovery, CRS also engages actively with FAO.

PILLAR 2

AGRICULTURE FOR HEALTH

The purpose of Strategic Objective 2 is to ensure that CRS agricultural programs assist people to obtain improved nutrition and clean water.

CONTEXT

In 2006, FAO reported that more than 850 million people faced acute food insecurity and hunger. In 2003 the WHO estimated that over 50% of deaths in poor countries were associated with “hidden malnutrition”. The most vulnerable groups in developing nations are the young, the old, and the sick. The young are particularly at risk; up to 29,000 children die each day as a result of poor nutrition. Inadequate food before birth can lead to intrauterine growth retardation and low birth weights. Up to age 2, poor health and nutrition are linked in a vicious cycle in which malnutrition increases susceptibility to disease, and illness reduces dietary intake, resulting in well-documented patterns of stunting and wasting (Habicht and Martorell, 1986). Severe episodes of poor health and inadequate nutrition can retard mental development (Arrieta and Craviata, 1986). Similarly, children in the 3–5 years range who have poor diets can also experience stunting. These effects, resulting from a combination of poor health and hygiene and inadequate dietary intake, are associated with a vicious cycle of poverty and chronic ill-health. Consequently, there is a global initiative to focus on improved dietary support and the promotion of hygiene to mothers with children under 2 years, when there is the best chance of reducing these effects.

In the agricultural context, problems of poor nutrition are exacerbated by degraded soils, limited access to clean water, and lack of diversity in crop and livestock products. Many poor households face significant barriers to overcoming poor health and nutrition, including lack of knowledge, inadequate resources, and cultural norms that promote suboptimal behaviors. Poor hygiene and inadequate sanitation are other leading causes of morbidity and mortality in children under age 5, mainly resulting from diarrheal and other opportunistic diseases. Poor sanitation is often the result of substandard sanitary infrastructure and lack of knowledge. Health, agriculture, and water management sectors need to converge to provide rural and urban households with simple methods to achieve basic levels of safe hygiene and reach at least minimal standards of good nutrition. CRS is working with a number of



Accessing better nutrition through low-labor keyhole gardens

partners to meet the needs of pregnant and lactating women, children under age 5, people living with HIV, and the elderly.

CURRENT FOCUS

In an effort to improve the basic health, hygiene, and diets in poor rural communities, CRS works to introduce integrated packages that promote better hygiene behaviors and infrastructure, improved dietary diversity and feeding practices, and better access to clean water. CRS is also encouraging initial analyses of barriers to healthy nutrition behaviors. This work helps people to understand more about the benefits of good nutrition, identifies ways to overcome barriers to good nutrition, and promotes positive behavior changes associated with good health practices.

This work helps people to understand more about the benefits of good nutrition, identifies ways to overcome barriers to good nutrition, includes access to safe water, and promotes positive behavior changes associated with good health practices.

Crop and diet diversity. In areas that have particularly degraded soils and limited crop diversity, CRS is promoting kitchen and community gardens to encourage households to grow a range of vegetables to supplement their diets. Where possible, households are also encouraged to invest in small-livestock schemes, to provide eggs, milk, and occasionally meat. CRS is also involved in the production and marketing of vitamin and mineral-rich plant products such as orange-fleshed sweet potato (a good source of vitamin A) and beans (rich in iron), through our associations with partners such as CIAT and West Africa Rice Development Association (WARDA) that are involved in the Harvest Plus Project.

Making production easier. Interventions include the promotion of “baby-friendly farms” that facilitate exclusive breastfeeding while women work in the fields; food conservation methods that enable food to be stored for eating during hungry seasons; and the organization of Junior Farmer Field Schools that target orphans and vulnerable children. CRS also demonstrates labor-saving farming methods, such as trench and keyhole gardens that enable the elderly and chronically ill, including people living with HIV, to grow nutritious foods for their households.

Integration with water and sanitation programming. While much of CRS’ agricultural work focuses on water for productive purposes, we develop programs that consider multiple uses of water. CRS’ water and sanitation programs are vital to ensuring that people have proper biological utilization of nutritious foods.

These efforts aim to improve the health of vulnerable people and avert the harmful effects that poor diet can have on children’s development. By integrating this health-focused work into our agricultural programs, we also

hope to increase our reach and make more people aware of the tremendous benefits that come from basic health care combined with a balanced and nutritious diet.

EMERGING ISSUES

Quality food for the family. In addition to working with farmers to increase production and incomes, CRS is also promoting healthy consumption. To encourage improved diets, CRS staff work with farming households to plan production of a range of nutritious crops, such as legumes, fruits, and vegetables, and encourages families to raise small animals for eggs, milk and meat where possible. Households which practice home gardening have a greater supply of vegetables year-round and quickly gain a better understanding of why nutrition is important. Work in Lesotho has also found that when introducing new farming methods, such as year-round household gardening, people also need to be informed about how to maintain production in off seasons, how to prepare new foods, and also how to make foods hygienic and safe (Weimer, 2007).

Farming methods for vulnerable groups: CRS is promoting the use of small gardens as effective labor-saving methods for vulnerable groups, such as people living with HIV, the elderly, and others suffering from ill-health. Small gardens are low cost, low maintenance, and target family needs.

Healthy farms, healthy farmers. Following the ideas of food-safety legislation being introduced into formal agriculture through the GLOBALGAP (Global Partnership for Good Agricultural Practice) initiative, CRS is working to promote safer farming systems in the informal sector. To promote this approach, CRS is working with field staff to encourage health and food safety norms on the farm as well as in the home. Such efforts seek to reduce, for example, the incidence of malaria among farmers by promoting bednets for those sleeping out in the fields. This simple method, often used in the house but rarely in the field, significantly reduces sick days and losses in productivity. Evidence also shows that field workers need to consider basic hygiene and food safety while working, and efforts must be made to have potable water and latrines available. We are also working with extension agents to encourage farmers to make farm working areas safe and friendly for children. This includes simple measures such as making sure that children are kept away from agrochemicals and machinery. CRS is also promoting the need for women working in the field to be given time and places for breastfeeding their children.

Mainstreaming health and nutrition. To promote behavioral change in health and agriculture, CRS is promoting the benefits of better nutrition, food safety, and sanitation through different types of community groups. The typology of groups includes farmer field schools, self-help groups (SHG), women's groups and multi-skills farmer groups. In India, CRS is working with more than 40,000 self-help groups, which have come together primarily for reasons of savings and internal loans. These groups provide an ideal setting in which to provide additional information, and CRS is promoting the idea of using "learning stories" and "learning circles", which enable the women in the SHGs to hear and discuss new ideas, on topics such as food safety, improved diets, and health-seeking behaviors. Similarly, farmer field schools (FFS) are being used to discuss safe use of agrochemicals, HIV prevention, and household gardening.

In India, CRS is working with more than 40,000 self-help groups, which have come together primarily for reasons of savings and internal loans.

FUTURE DIRECTIONS

In our work to integrate health and agricultural interventions to improve food safety, basic hygiene, and nutrition, we will focus our future efforts in the following areas.

Overcoming barriers to change. We recognize that practical solutions to improve health and food safety do not automatically lead to behavioral change. Our studies show that communities are often aware of what they are "supposed to do", but economic and social barriers prevent them from practicing appropriate behaviors. We are working to identify these barriers and find local methods to address them with the community. Examples of good health practices include hand-washing before food preparation, using different containers for storing water and mixing agrochemicals, and exclusive breastfeeding in the first six months. We will work closely with the health staff at CRS and partner levels to help identify barriers to taking these measures, and work hand-in-hand with communities to communicate these messages.

Dietary quality. We recognize the need to place greater attention on improving dietary quality and diversification through a range of agricultural interventions that include decisions on types of food to produce, options for post-harvest processing, and better methods of storing food for the family. These activities are closely linked with Strategic Objective 3, Agriculture for Environment, which is focused on enhancing productivity using sustainable farming systems.

Increasing consumption of nutritious foods. In addition to growing foods, virtually all farmers buy food at certain times of the year, and this provides

an opportunity for farming households to supplement their nutrition. CRS is placing increasing emphasis on working with farmers to develop more profitable agroenterprises and improve incomes. Increased income provides opportunities for families to make sound investment decisions to improve their access to health care, their nutrition, and their sanitary conditions.

Capacity building. As part of the CRS approach to building multi-skills farmer groups and supporting self-help groups, CRS health and agricultural staff will provide basic health and food-safety messaging as part of our agricultural practices. Other key health-related messages will include information about malaria and HIV. While ensuring that men and women have access to information about nutrition, health, and sanitation, we will focus health messaging towards women, as they are often responsible for meal preparation as well as other health- and hygiene-related matters.

Scaling model behavior. Reaching large numbers of poor people in remote rural areas with basic health and nutrition messaging is a major challenge. CRS is therefore working to complement our face-to-face work with mass-media such as radio and video. In the next 5 years, CRS will be working to create and disseminate critical advice on the value of improved diets, how to grow nutritious crops, safe meal preparation, food handling, and storage in our target areas of intervention. In this way, we hope to increase our reach from thousands to tens of thousands of poor people and incrementally improve the health and lives of the poor.

Increased income provides opportunities for families to make sound investment decisions to improve their access to health care, their nutrition, and their sanitary conditions.

PARTNERS

CRS agricultural staff will continue to work with local health agencies and strengthen links with external partners such as:

- Advanced research institutions, to develop more productive, drought-resistant or nutritious crops and relevant initiatives of the CGIAR such as “Harvest Plus” for bio-fortified varieties.
- Cornell International Institute for Food, Agriculture, and Development (CIIFAD), to develop nutrition modules as part of farmers’ skills set.
- Local government health clinics throughout our areas of operation.



Scaling up vegetable production to supply household and market needs.

PILLAR 3

AGRICULTURE FOR ENVIRONMENT

The purpose of the Agriculture for Environment pillar is to build the capacity of local communities to adapt to environmental change by promoting skills and technologies that improve competitiveness within integrated watershed management systems.

CONTEXT

The bulk of agricultural interventions conducted by CRS fall into the category of enhancing agricultural productivity and improving natural resources management (NRM). Our agricultural programs typically include the use of improved crop varieties combined with simple husbandry methods such as planting on time, use of staggered planting to extend seasons, judicious use of inorganic and organic inputs, weeding, crop rotation, and, to a lesser degree, integrated crop-livestock management. Our NRM work promotes environmental stewardship, including soil and watershed management and, in some cases, reforestation.

NRM is vital for poor agricultural communities in developing countries, as soil conservation and water resource management are crucial to farming for consumption and income, and to environmental protection in general. However, given the financial and labor constraints, developing productive and sustainable NRM systems is challenging. Many poor communities face increasing population pressure, more extreme weather, and low profits which prevent them from reinvesting in their farms. These factors often lead to low productivity, depleted soils, and declining access to water, with consequent land degradation. In some areas the effects of erosion and desertification are so severe that farmlands are becoming untenable or unable to support large families, forcing some members to migrate to new areas or urban centers.

It is difficult for farmers to improve their farming systems due to lack of access to new technologies, opaque land tenure regulations, discriminatory inheritance laws, biased resource rights, and extremely limited finance options. Low profitability and poor technology access are particularly problematic for women and marginalized ethnic groups, as they generally do

Natural resources management is vital for poor agricultural communities in developing countries, as soil conservation and water-resource management are crucial to farming for consumption and income, and to environmental protection in general.



Planting new varieties of potato in Bolivia.

not have the social power or networks to overcome such barriers. We also observe that as income opportunities stagnate or decline, men and youths tend to migrate from rural areas in search of alternative work, returning only occasionally—or not at all if they die from conflict or disease. These absences result in an increasing number of female-headed households. In these cases, women must shoulder the full responsibility of supporting their children, but rarely do they have the same rights in decision making and resource access as their men.

Levels of production are a major problem in many poor areas, and increased production can be achieved either by expanding the area of production or by increasing yields.

The challenges of greater global competition for agricultural goods, declining market access, diminishing government support, and weak farmer organization create a demanding environment for poor farmers. While CRS is unable to tackle the most fundamental problems associated with global trade policies, we believe there are opportunities to improve agricultural productivity through greater support to farmer groups, better use of existing technologies, and the development of ways to link smallholder farmers to markets.

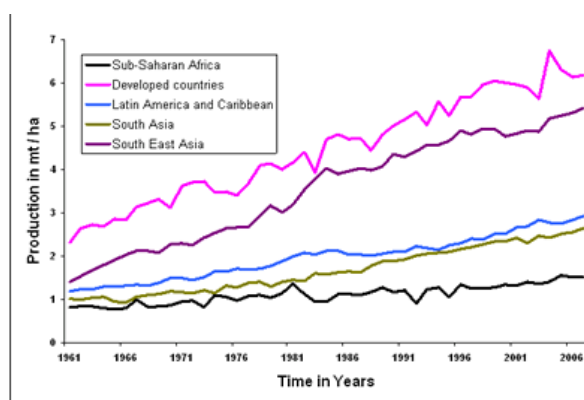
CURRENT FOCUS

Across the globe, CRS agricultural programs aspire to sustainable production practices. In most regions, agriculture programs work within a defined project territory, using a part of a watershed as the intervention area. Watershed-based approaches begin with a mapping exercise with the local communities, and planning is done through public-private watershed committees. Implementation plans aim to improve surface water collection and management, improve water-use systems, invest in infrastructure such as small dams, and modify land use practices to reduce land degradation.

Productivity enhancement. Levels of production are a major problem in many poor areas, and increased production can be achieved either by expanding the area of production or by increasing yields. Given the pressure on land, CRS promotes the use of new varieties, fertilizers, and crop rotations to increase the yield per unit. Africa probably has more available land for expanding agricultural production than any other continent, but as shown in Figure 4, it also has the lowest performance in improving unit-yield gains. The potential for increasing production and productivity is high, and greater efforts are required to deploy competitive technologies into the farming community. However, this must be done in a demand-driven context, such that surplus production can be sold to identified buyers.

Improved varieties. CRS has developed a close working relationship with the Consultative Group for International Agricultural Research (CGIAR) to test new varieties. All of the products released by the CGIAR support farmers' rights to seeds and are GMO free. New varieties also combine high yields with high levels of embedded minerals and vitamins. We fully support greater use of improved seed varieties that are resistant to major pests, disease, and drought.

Figure 4. Yield gap for cereals between Sub-Saharan Africa and other regions



(Source: <<http://www.fao.org/corp/statistics>>, accessed December 18, 2008.)

Improved tillage. The majority of smallholder farmers rely on hand hoes to till the land, and much of this back-breaking work is being done by women. While hoes are effective, hand preparation of fields is slow and limits both the area and timing of production. Animal traction offers significant improvements in the speed and quality of tillage and allows for ridge plowing and better seedbed preparation. Animals also provide other benefits, such as transport, manure, fuel and food. In some countries there are opportunities to hire or buy mechanized tillage equipment, which is quicker and provides greater uniformity of seed beds. Zero tillage is another method gaining popularity as it offers the advantage of speed and low labor. However, zero tillage generally requires the use of herbicides to suppress weeds, and this requires greater environmental attention. CRS is working with partners to improve our ability to match economic tillage systems with production methods.

Clean Farming. CRS takes a balanced view towards inorganic and organic production systems, and we support the judicious use of agrochemicals. All of these technologies are valid and viable in an appropriate production system. We support the use of organic farming systems where markets offer a premium price for goods grown under these conditions, such as fair trade

CRS PROGRAMMING SNAPSHOT

Central America: Farmers traditionally hesitant to conduct soil and water conservation embraced watershed management soon after Hurricane Mitch in 1998.

India: Farmers have seen notable gains through improved watershed management, often doubling on-farm production and recharging aquifers. This work has been linked to formal banks so that farmers can access loans to foster agroenterprise options.

organic markets for fruit, vegetables, and high-value coffee and cocoa. For lower-value, higher-volume field crops, the use of inorganic inputs may be necessary to maintain profitable yields, and where possible the use of effective cereal–legume rotation systems is encouraged. For many crops, we appreciate that agrochemicals are required at specific times, but only support use of agrochemicals with strict adherence to manufacturer’s guidance. CRS essentially seeks to warn people against the excessive use of fertilizers and untrained use of agrochemicals and supports the use of pragmatic “clean farming” systems that use appropriate inputs to maintain product quality and profitable yields.

EMERGING ISSUES

Water: the essential element. Evidence shows that access to water is a defining factor in successful farming systems. Lack of basic water management underlies many of the problems associated with low-input smallholder farming, and considerable investments in water use schemes are required if farmers are to offset the vagaries of rainfed agriculture.

Our NRM strategy is therefore placing increasing emphasis on watershed management and will use the watershed as our spatial “unit of change”. In some areas, remedial water management is a prerequisite to stabilizing production systems, and if this is the case we endeavor to rebuild water systems prior to making production investments. Improving water systems often requires construction of basic water-harvesting and distribution systems, and wherever possible we seek to integrate the need for water for agricultural production with household sanitation and clean water for drinking, in support of Strategic Objective 2.

Constructing basic infrastructure requires technical expertise, materials, and labor. CRS provides technical support through our staff and both plans and co-invests with communities using food-or cash-for-work programs. The investments at the landscape level need to be followed by profitable agricultural interventions, and we are increasingly focusing on agroenterprise methods to sustain NRM investments (see SO 4). This combination of small-infrastructure capacity building and market linkage is a foundation for community resilience to cyclical shock.

GMOs. Although CRS is not yet working with genetically modified organisms (GMO), the use of GMOs is increasing in the agricultural sectors of Asia and Latin America. Our approach to GMOs is to follow policies on a country-by-

country basis. If and when such technologies become available, we will work with our national research partners to test their viability and ensure benefits for the poor. We recognize that in some marginal areas, GMOs may be the only viable long-term competitive solution—for example, in areas that suffer from extreme drought, have highly saline soils, or excessive contamination of pesticides.

Fertilizer use. The history of inorganic fertilizer use in Africa is extremely limited, and currently stands at less than 5 kg / hectare. Although there are many plans to significantly increase fertilizer usage, the recent surge in fuel prices more than doubled the price of inorganic fertilizers in the last year. For many poor farmers, this price hike prevented them from being able to afford the technology, and even when oil prices fall it is likely that this basic input will remain beyond the reach of millions of farmers. Given a more economically stable climate, we support the rational use of inorganic fertilizers, but only in conjunction with basic business plans, to ensure that the additional costs of inputs are met by increased levels of income.

Livestock. With the exception of pastoralists, another common division between richer and poor farmers in the developing world is the ownership of livestock. The division comes because livestock requires significantly more land, labor, and technical skills to manage than smallholder crops. Commercial production of livestock or livestock products also requires access to veterinary services, which are often costly or unavailable. Although animals are considered prestigious in many societies, and are referred to as “walking banks,” prestige must be balanced with the considerable risks of loss from disease, theft, and maltreatment. Labor is required to maintain animals, and while they bring many benefits, they require continued investment throughout their productive lives. Given the greater knowledge and support needs of commercial livestock, our investment in this sector is limited compared with crops. However, we are increasing our support for homestead poultry and small-ruminant rearing, with a view to supplementing diets and providing microagroenterprise options that meet the household needs of women and possibly women’s groups. Where we have access to partners with strong livestock experience, we are keen to explore the possibility of greater investment in this area, but are cautious about our capacity.

Our future work on natural resources management will place more emphasis on competitive production and value chain upgrading, finding ways to support greater roles in decision making for women in agriculture and moving from adapting to adverse weather towards mitigation.



Building livestock back into communities.

FUTURE DIRECTIONS

Our future work on NRM will place more emphasis on competitive production and value chain upgrading, finding ways to support greater roles in decision making for women in agriculture, and moving from adapting to the effects of climate change towards a greater level of mitigating the root causes.

Urban agriculture. The recent food crisis has not only underscored the importance of rural production systems but also highlighted the importance of urban and peri-urban farming systems in meeting the food-security needs of poor communities. In much of the developing world, the balance between urban and rural populations is shifting, and within 20 years, many countries will be more urban than rural. Given this shift, CRS is starting to develop capacity to support urban food-security needs and to develop links with partners who can support urban and peri-urban farming systems.

The role of women farmers in developing countries is changing rapidly, as women become more empowered and more female-headed households are required to take on production and marketing of their agricultural goods.

Supporting women in agriculture. The role of women farmers in developing countries is changing rapidly, as women become more empowered and more female-headed households are required to take on production and marketing of their agricultural goods. The rise in self help groups in India and now emerging in Africa, has shown the gains that can be made as women achieve greater solidarity and capacity, and CRS is working with partners to find practical ways to support women's roles in agriculture for food, nutrition, and income generation.

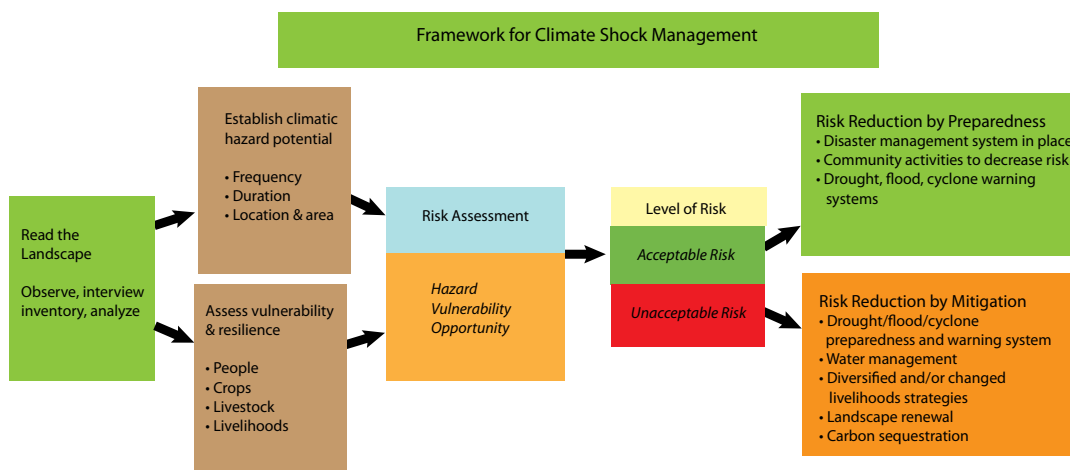
Climate change. One of the major global concerns in relation to NRM and sustainable farming systems is the occurrence of more extreme weather events—droughts, floods, and storms. There is growing consensus that the increase in extreme weather is linked to rising carbon levels caused by the burning of fossil fuels. Adverse climate change means that poor and vulnerable communities will need a better understanding of climate-related threats and improved risk analysis practices so that they can be better prepared for climatic shocks and find effective means to repair degraded landscapes and farming systems.

Adaptation. At present most climate-based response activities are focused on adapting to the effects of adverse weather. Following climatic shocks, such as droughts, floods, and storms, our emergency and agricultural teams work to rebuild basic infrastructure and meet immediate food-security needs.

However, the threat of chronic and repeated climatic shocks requires that longer-term solutions be developed that can enable communities to analyze, prepare for, and respond to shocks as they occur.

In India, CRS invests heavily in watershed management, working with local communities that have been devastated by chronic drought. Communities rehabilitate local infrastructure and stabilize water systems by constructing small dams, protecting river-erosion points, and building embankments to hold water for agricultural and household use. The strategy is to establish systems to manage water before introducing agroenterprise projects to link farmers to markets. The success of this approach attracted both informal and formal financing institutions, such as the National Bank for Agricultural and Rural Development (NABARD), which have opened lines of credit to communities within watershed rehabilitation projects, as they believe that natural resource management is key to long-term, bankable projects. This virtuous cycle of better water and land management leading to investment and entry into new market opportunities, strengthens community cohesion and provides a means of resilience to future weather and financial shocks.

Figure 5. Climate Shock Framework



Towards mitigation. While adapting to climate change will remain the focus of our work, we are also keen to explore opportunities for moving from adaptation to mitigation. To assist us in this direction we are developing a climate-shock framework, as shown above (fig. 5). This conceptual framework seeks to prepare communities for climate-based shocks by identifying hazards and vulnerable points in the landscape and using this information to assess risk and, where necessary, invest in protective measures. Examples of preparatory measures include establishing early warning systems and planting trees on slopes to improve protection from mud slides.



Exploring new carbon market opportunities

Carbon markets. Our investment in forestry and carbon sequestration for future trading remains conceptual at this time. However, there is evidence that local communities and governments are seeking to increase investments in forestry, initially to protect vulnerable highland areas from severe erosion. This has led to a number of CRS-led tree-planting programs in Latin America, Southeast Asia and eastern Africa, which have proven to be cost-effective ways of protecting landscapes at severe erosion points. In the future there is the potential for farmers to benefit from the carbon market, but official certification in the UN or EU systems is a difficult process, and therefore currently of limited interest to CRS. However, there are informal markets for carbon credits which would be more accessible to CRS, as they are more easily adapted to smallholder farming systems. CRS will investigate forestry programs with communities which both generate income from the trees and qualify for informal carbon-offset credits. These programs may employ techniques of agroforestry, permaculture, or woodlots, depending on local conditions and priorities.

PARTNERS

Strategic partners for this pillar include:

- CGIAR's centers for supply of new varieties and improved farming systems
- USAID's Food for Peace which has provided long-term support to CRS through multi-year assistance programs that make strong links between production, markets, and improved natural resource management. We envision this support continuing but with increased emphasis on value-chain development and climate response.

A new group of strategic partners for CRS are private foundations, exemplified by the Howard G. Buffett Foundation (HGBF). HGBF funds CRS for long-term, multi-sectoral work that responds to complex development problems. An example outcome is the multi-year, multi-agency Global Water Initiative for integrated water-resource management in 13 countries in West Africa, East Africa and Central America.

PILLAR 4

AGRICULTURE FOR INCOME

The purpose of this strategic objective is to support local partners to empower local communities with the skills, technologies, and organizational structures to improve their market performance and incomes.

CONTEXT

Over the past 20 years, agriculture in poor nations has changed dramatically, as governments have withdrawn from agricultural markets and smallholder farmers have been left to compete in highly liberalized markets. Smallholders have had to take on the challenges of a globalized marketplace with almost no access to new technologies, weak financing and few agricultural support services. During this time the value of agricultural goods also fell to an all-time low, where they remained from the mid 1980s up to 2005. This extended period of low income, loss of services, increasing competition, and impoverished smallholders worldwide contributed to the accumulation of massive debt for poor countries, whose economies were dependent on a limited number of cash crops such as coffee, cocoa, rubber and tea. The result of this agricultural depression was that many millions of poor farmers, particularly in Africa, fell out of international “cash crop” markets and struggled to compete with imports of cheaper food crops in their national markets.

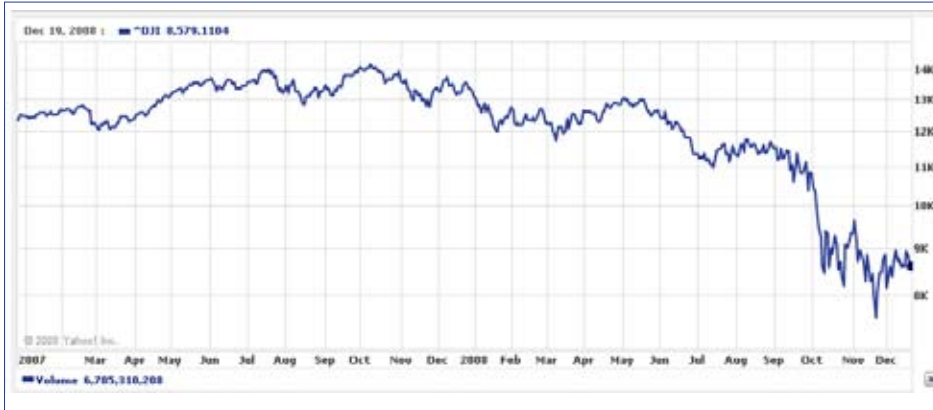


Making markets work for the poor.

In this extended period of depressed agricultural markets, new business models such as fair trade were developed by faith-based organizations like CRS to provide some farmers with income protection by setting a floor price for goods based on quality and sustainable production criteria. This period also saw market consolidation at the wholesale and retail levels, with the rise of global intermediaries and supermarkets that pushed market power securely into the hands of the buyers. The rise of global supermarkets offered some farmers access to new, formal markets in flowers and fresh fruits and vegetables, and this enabled some farmers to tap into higher-value markets. However, barriers to entry into these markets quickly emerged, with the advent of strict food-safety standards around EUROGAP (European Standard for Good Agricultural Practices) and GLOBALGAP. The increasing regulation

of the marketplace meant that many smallholder farmers once again fell out of the more lucrative international markets, and most have subsequently refocused their attention on local and regional food markets.

Figure 6. The Dow Jones Index since 2007



The global food, fuel and finance

crisis. All of these trends entered a new epoch with the sudden onset of the food, fuel and finance crisis of 2008. Within an 18-month period, prices of all major food commodities surged from an all-time low to an all-time high, with prices of some commodities, such as rice, tripling within one year. The surge in food prices was entangled in the wider

global economic crisis that was driven by a combination of complicated factors that included short supplies of oil products, the collapse of the real estate and credit markets, and steadily increasing demand for resources from emerging economies. Commodity prices collapsed with the subsequent global recession and rapid shrinking of major economic sectors.

The final effects of the global economic recession on poor farming families in developing countries are as yet unknown, but it is clear that both urban and rural consumers will face significantly increased food costs over the next five years.

The final effects of the global economic recession on poor farming families in developing countries are as yet unknown, but it is clear that both urban and rural consumers will face significantly increased food costs over the next five years. In the short run, smallholder farmers may benefit from increased incomes as commodity prices rise, but they will also suffer from increased costs, as more than 40% of poor smallholder farmers are also net buyers. Of equal concern are the millions of poor urban dwellers who have become accustomed to buying cheap imported food. They have no crops to harvest and must buy on the market, whatever the cost. In addition, emergency food aid will be hindered by a dearth of cheap surplus corn and high shipping prices. In short, given the critical nature of this global economic crisis, any shortfalls in harvests in developing countries will have a significantly more pronounced negative impact on food security for the poor—as is already being demonstrated by the food shortage in the horn of Africa.

Improving market performance. Given the profound socioeconomic and environmental changes that are occurring worldwide, smallholder farmers in developing countries need to find more innovative ways to improve their market performance, and CRS is placing increased emphasis on helping smallholder farmers to develop profitable and sustainable agroenterprises.

While this shift from food towards more income-based security reflects the global economic environment, our strategy remains centered on enabling our partners to empower local communities by providing them with skills that will permit farmers to make more informed market decisions, use new technologies, and organize social structures to improve their market performance and resilience.

CURRENT FOCUS

To increase our ability to support more complex, market-led interventions, CRS has invested in a major learning and capacity-building process over the past six years. This retooling exercise, undertaken with staff from more than 40 countries, has developed into a global Agroenterprise Learning Alliance. Supported by the CIAT the alliance has developed a series of basic agroenterprise methods that CRS staff have field tested and improved in collaboration with our partners (see www.crs.org/publications). This ongoing learning process has enabled CRS to promote integrated agroenterprise activities in virtually all of our agricultural programs and to develop new projects with a number of new strategic partners to promote our pro-poor market-led approaches.

The Agroenterprise Learning Alliance has had a transformative effect on many aspects of our relationships with partners and the communities we serve. As a result, we are redesigning our methods of engagement with communities. We now place far greater emphasis on working with local actors and the private sector to facilitate changes in market chains rather than providing goods and services, which may realize rapid results but have little effect on the durable market engagement of poor farmers. As part of this new approach to supporting poor farmers in market or value chains, we are placing increasing emphasis on empowering farmer groups and their local service providers to understand markets and build collective marketing capacity to enhance market performance and growth. We are working to adapt these agroenterprise methods to meet the particular needs of vulnerable groups, and we are committed to empowering women and women in groups to engage in agroenterprise activities.

The agroenterprise methodology. The methodology that we use for agroenterprise development follows five basic steps: (1) learning, (2) planning, (3) earning profits, (4) scaling up, and (5) sharing knowledge. An essential prerequisite step in this process is to build staff and partner capacity in marketing and agroenterprise development.

Step 1: Getting Organized – Evaluates local resources and partners and enables local service providers and farmer groups to gain a better understanding of their market options. This step includes assessments of farmer skills, methods for group organization, product identification and market chain surveys to evaluate what products to invest in and how to position farmer led agroenterprises within a market or value chain⁴.

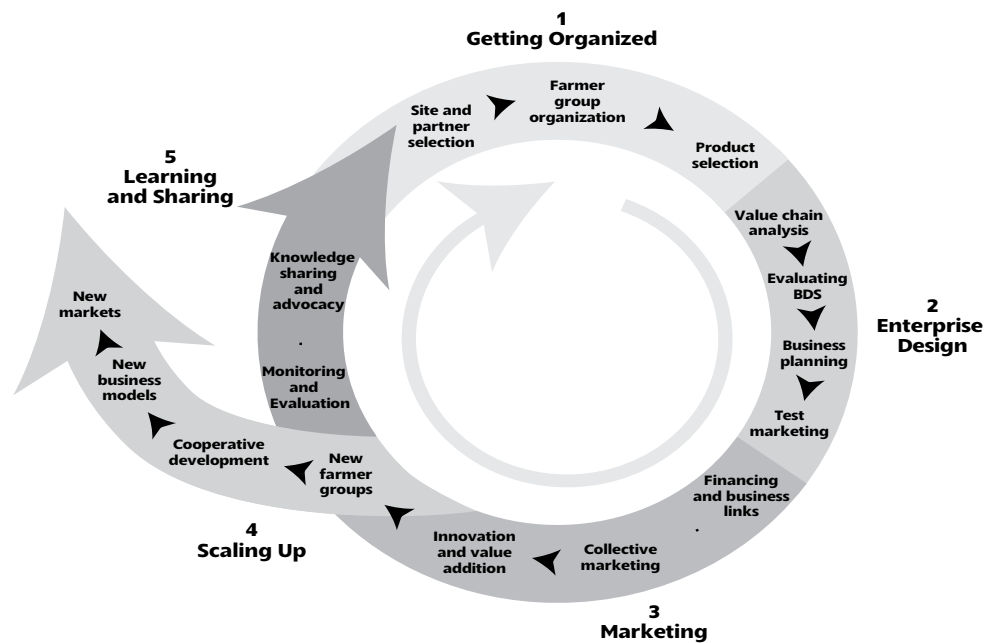
Step 2: Enterprise Design – Involves developing business plans, financial planning, evaluating business service needs and pilot testing. This stage enables the farmers and service providers to plan and conduct test marketing and review their investment plans and strategies.

Steps 3: Marketing – Focus on launching the enterprise and supplying product volume through collective marketing.

Steps 4: Scaling Up – Once successful, this stage involves expanding the process through clustering of farmer groups, improving competitiveness and fine tuning the agroenterprise to increase profitability.

Step 5: Learning and Sharing – Although every stage in the process requires performance monitoring, this final stage in the process, provides a space for project staff, partners and beneficiaries to evaluate overall changes that have taken place and write up the findings in a form that can be shared with a wider audience and where possible information can be used to scale out beneficial findings and policy messages can be generated to enable advocacy in support of smallholder agroenterprise development.

Figure 7. Steps in CRS Agroenterprise Methodology

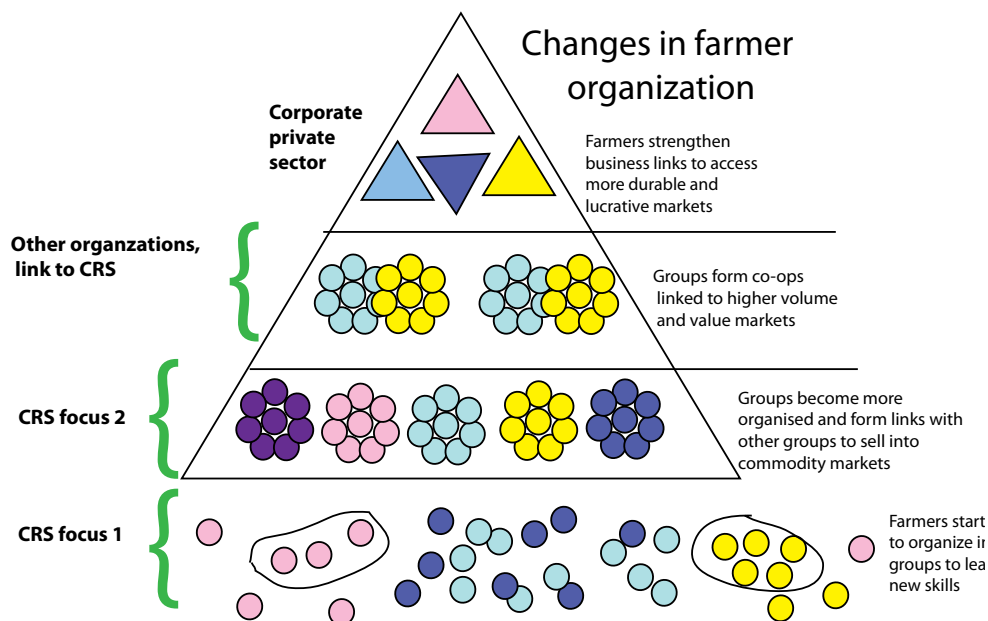


⁴Supply chains, market chains, productive chains or value chains are used synonymously to refer to the chain of actors involved in supplying agricultural products and services to consumers.

EMERGING ISSUES

The agroenterprise learning alliance clarified a number of issues that were either in need of strengthening or rethinking. Questions of particular importance were when and how to form farmer marketing groups, how to cluster groups, how to improve rural finance, and how to engender a need for constant innovation. Other important implementation issues included how to build rather than crowd out business development services, and where CRS should be positioned in the agroenterprise development process.

Figure 8. Level of CRS support to farmer organizations



Farmer groups. Millions of farmers in developing countries have limited experience with marketing and developing agroenterprises, and poor farmers, with weak social structures, struggle to make progress in ever more competitive markets. Our aim is to raise the capacity of poor farmers to a point where they are able to take on new technologies and have the basic management skills to identify market opportunities and develop profitable agroenterprises to supply markets. As shown in Figure 8 above, our work in organizing farmers for agroenterprises starts at the bottom on the marketing pyramid, working with atomized farmers in a project zone. These farmers are poor, perhaps recovering from disaster, and generally come from a range of wealth and asset categories. Their common aspiration is to achieve better livelihood options. Our goal is to organize primary farmer groups and develop their agroenterprise skills such that groups can aggregate products to

Developing basic storage points would enable farmer groups to aggregate produce to increase their sales volumes and sell at a truck level so as to benefit from higher order trader business deals.

supply basic volume and value markets. In time, we coalesce several first-order farmer groups into more sophisticated second-order associations or cooperatives. In many cases we would find partners to assist our teams to make this graduation, as specialized skills are required in scaling up financial and business systems.

Multi-skills groups. Our studies have shown that organizing farmers into robust marketing groups is not a simple task. Many farmer groups fail or disassociate after one or two seasons. To build more resilient groups, we are testing ways to bring together multi-skills farming groups that are established initially as savings groups. This foundation builds trust between members before entering into business transactions. The skills that we are focusing on include training in (i) group formation and democratic decision making, (ii) savings and loans, (iii) profitable production methods, (iv) agroenterprise, and (v) innovation. These skills are not a prescriptive list but provide options to improve group cohesion and social capital, leadership, resource management, production systems, and market performance. We believe this layering of skills is a means both to empowering farmers and to setting up stronger basic “units of change,” which can be scaled into more resilient marketing associations.

Input supply systems. In almost all environments in which we work, the ability of farmers to access basic inputs is very limited. Lack of farmer organization within the input system means that farmers are either unable to access productivity enhancing technologies or they pay a “poverty penalty” when buying basic inputs such as seed, fertilizer, and pesticides. Farmers often pay 40–50% above standard unit prices, as they buy small amounts of inputs only when they are actually needed. Greater efforts are required to support rural input suppliers to stock necessary farm inputs and then to inform farmers about where to buy, standard costs, and how to use inputs profitably.

Crop storage. Once crops are harvested, many smallholder farmers lack access to basic storage facilities and are therefore forced to sell the bulk of their produce at harvest time to avoid loss to pests and disease. Developing basic storage points would enable farmer groups to aggregate produce, increase their sales volumes, and sell at a truck level so as to benefit from higher-order trader business deals. This is particularly effective for collective marketing and sales of perishable goods that need to be collected regularly. Longer-term storage units for grain crops are also in scarce supply in remote rural areas, and CRS is investigating simple



Appropriate storage to support building and collective marketing.

storage structures linked to organized farmer groups. These sites allow farmers to clean, aggregate, and hold produce for a limited time, typically less than four weeks after the harvest. It is possible that, with appropriate training, farmers could fumigate grain in such stores and thus become more involved in speculative storage and trading in higher-value markets. However, our focus is to use stores as aggregation points rather than for market speculation, and this should not be confused with grain banks. The development of improved stores for the short-term aggregation of quality produce will be essential if smallholder farmers are to bulk and store grain for sales into seed markets or local procurement food aid projects, and we believe these new market opportunities for smallholders are likely to grow.



Working with the private sector to bring produce to higher value markets.

Grades and standards. Another major handicap to smallholder trading is lack of adherence to or understanding of basic units and measures of trade. In some cases, farmers are reluctant to conform to such standards. CRS will work with farmer groups to help them understand the need to follow quality standards and achieve these standards to meet the needs of more formal buyers. This is a prerequisite to entry into many higher-volume and value markets.

FUTURE DIRECTIONS

Our future work in agroenterprise development will place greater emphasis on farmer organization, developing finance options, and building chain-wide thinking into our agroenterprise systems.

New finance methods. As with all business ventures, agroenterprise requires some form of investment to establish new operations and support them until revenues begin. Unfortunately, formal lending to rainfed agriculture is virtually absent in most developing countries, because of the high risk to lenders. Microfinance has been unable to reach much beyond peri-urban areas. CRS is therefore working on pilot projects to address this need. For example in India, associations of self-help groups have saved sufficient funds to provide farmers with informal loans to support inputs and small

Our future work in agroenterprise development will place greater emphasis on farmer organization, developing finance options, and building chain-wide thinking into our agroenterprise systems.

agroenterprise investments. CRS is also testing a similar approach in Africa. These savings-led approaches may offer a more sustainable and self-reliant means of supporting business development. However, we realize that it may take 3–4 years before such methods can accumulate sufficient funds to invest in agriculture, and in most cases it will require savings co-operatives linked to formal banks to support scaled investments. Given the critical need for finance in agriculture, the microfinance and agricultural teams are working to design and test a range of financial instruments, including savings, multi-phased loans, and warehouse receipts, to support agricultural needs for input, production, storage, and marketing.

Market support. Local markets are critical institutions that support communities but for various reasons they are often neglected, poorly managed with dilapidated facilities. CRS is keen to work with local governments, farmers associations, and traders to rethink how local markets can be rebuilt and managed in ways conducive to growth. In Vietnam, CRS is working with local commune authorities to rebuild market hardware (i.e., the stalls, cleaning areas, and stores) and also to upgrade internal and external marketing systems. Internal systems include organization within the market, such as best use of space and stalls, market information (prices and volumes), some basic grades for key products, and the use of unit weights and measures. External systems include working with market managers and lead traders to promote the business of the market to external buyers. Upgrading market facilities can immediately improve market sanitation and organization and support basic trading units and grades. The use of mobile phone networks and the Internet can also attract new buyers to the market. All these efforts should focus on ways to make the market a better place to do business and thus attract more buyers for local products.



Working with traders to establish better buying arrangements.

Upgrading external market systems: Mobile phone networks and the Internet can allow buyers to get information on wholesale prices and produce volumes available at different times of the week. They also provide opportunities for producers and traders to meet to discuss new buying opportunities.

New business models. As we extend our investment into agroenterprise projects, the types of value-chain methods and business models we deploy are coming under increasing scrutiny. Existing business models, such as fair trade, provide smallholders with an equitable trading platform compared with mainstream commodity markets, but have limited application and require linkage through established co-operatives. Our agroenterprise work

often takes place below the formal co-operative level, and we are working on new business models that link firms with farmers based around traders. One business model that shows promise focuses on so-called doubly specialized intermediaries, or friendly traders. These traders provide farmers with market channels to test their abilities on a commercial basis, matching risk with revenue in a mix of informal and formal market options. CRS is interested in this approach, as it works in mainstream markets and provides us with an exit strategy in which successful business relationships are left to develop between the trading companies and farmer groups, allowing project facilitator staff to withdraw.

Scaling and communication. Scaling strategies are of increasing importance to our partners and donors, and we are working on ways to extend our reach through the use of improved communication systems and information and communication technologies. We are currently working on systems that use mobile phones and new ruggedized computers in the field and through such methods we aim to make people in the market chain more visible, offering them a means for two-way communication between distant buyers and sellers. As mobile phones and e-connectivity platforms become more available to remote communities, we will work with entrepreneurs and farmer groups to link more people to market information and knowledge that they can put to use in their agroenterprises. Use of information technology will provide not only a spatial point of reference but also the opportunity to establish records of transaction and thus basic information for credit ratings and potential loan distribution.

Women in agroenterprise. As with the other pillars in this agricultural strategy, we are concerned that agroenterprise benefits be fully shared by women. We are aware that women can face considerable difficulties in developing enterprise activities and achieving decision-making power over profit. We are therefore working to evaluate gender constraints in our existing agroenterprise methods and where necessary to develop methods that focus on the special needs of women in business.

PARTNERS

To improve our rate of innovation, performance, and scale, we have developed strategic relationships with the following agencies to support these areas of work:

- CGIAR, to enhance on-farm productivity and co-develop agroenterprise methodologies
- CIAT and agroenterprise learning alliance 2.0 to continue building marketing capacity
- Sustainable Food Laboratory to improve our links to corporate agencies
- International Institute of Environment and Development, to support pro-poor business models
- Kimetrica, to assist with on-line systems for monitoring and evaluation of agroenterprise project and monitor our agroenterprise performance
- Nethope, Agilix, FormRouter, and Intel, to facilitate our ability to develop and deploy learning products and curriculums, and to extend knowledge exchange from staff to remote rural farmer groups
- Busylab, to support basic market-information systems and lay the foundation for market-intelligence systems.

CONCLUSIONS

Given the central role that agriculture plays in the lives of the world's poor, this new agricultural strategy lies at the heart of CRS' developmental ambitions to help the world's most vulnerable build better livelihoods. We have organized our work into four pillars for reasons of clarity only; we stress that this work is inter-connected and learning flows across and within these pillars. In the next five years, we hope to improve our good practices and make these materials more readily available within and beyond CRS, and through these methods to upgrade our activities and impact. We are seeking to strengthen our links with a range of other agencies from the public and private sectors to enhance our abilities and reach, so that we can better serve more people in need.

Our reach. One of our key assets as an organization is our unique and broad-based network of faith and community-based organizations that work in the poorest areas of developing countries. Being a member Caritas Internationalis⁵, which operates in over 200 countries, enables us to tap into existing local networks that comprise a range of local service providers, including indigenous NGOs, government research institutions, agricultural extension agents, local administrations and universities. These are long-term partnerships, not based on short-term contracts. We are also actively increasing our links with the private sector and are seeking to strengthen better business relations with local and nationally active entrepreneurs to develop effective business relationships.

Sustainable systems. Much of the work being done by CRS in the agricultural sector is based on increasing agricultural productivity for identified markets and improving resilience through better natural resource management (NRM). Given the importance of NRM, in all of our agricultural programming we are seeking to strengthen links between NRM and our objectives of improving resilience, food-security, health and building a more durable income base. This linkage of objectives around NRM and watersheds provides us with a long-term framework that is based on better environmental stewardship.

Unit of change. Based on a series of studies in Africa, Asia and Latin America, (Aldana et al. 2006), we have decided to refocus our attention on

⁵Caritas Internationalis is a confederation of 162 Catholic relief, development and social service organizations working to build a better world, especially for the poor and oppressed, in over 200 countries and territories.

developing more effective farmer groups as our basic unit of change. Our focus in building multi-skills farmer groups is to lay the foundation for more effective social and economic organizations that will enable communities and families to be more resilient to shock and more successful in better times. Our experience shows that technology alone is a short-term fix and that success in the longer term requires an engaged social framework and investments in local infrastructure to gain traction.

Expected outcomes. We are seeking a transformational change in our project areas. In areas suffering from severe shock or chronic distress we seek to build back better situations that provide people with sufficient food to eat, shelter, clean drinking water and basic medical support. Wherever the starting point, we work with communities to build skills and assets that will enable them to set out on a pathway towards asset building and growth so that the vulnerable become tomorrow's viable communities and they can cross the boundary of extreme poverty and set out on the path to more dignified and fulfilled livelihoods.

Thanks for your support. After many years of neglect, there is renewed interest in investing in agriculture as a means to alleviate poverty. Donors such as the United States Government, the World Bank, and major foundations such as the Bill and Melinda Gates Foundation and the Howard G. Buffett Foundation have recognized the vital role that agriculture plays in poverty reduction, employment, and growth. CRS continues to work with these strategic allies to further leverage the generous support we receive from the U.S. Catholic community and other people of good will worldwide. We make it our highest priority to maintain and continually upgrade our ability to reach those in need and provide the highest levels of social and financial accountability. All of our working practices and financial expenditures are available on our website, www.crs.org. We are grateful for your support, as are the people we serve.

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RESULTS FRAMEWORK

Goal: Improved Livelihood Security and Integral Human Development for the Poor

SO 1 (Agriculture for Emergency Response): Rural communities are able to rebuild from shock and cope effectively with disasters that threaten their livelihoods.

SO 2 (Agriculture for Health): Rural households consume diversified and nutritious food, and properly use sufficient potable water, to meet their needs throughout the year.

SO 3 (Agriculture for Environment): Rural communities manage their watersheds in productive and environmentally-sound ways, adapting to climate change and other shocks.

SO 4 (Agriculture for Income): Rural farmer groups compete effectively in selected value chains and increase their incomes.

Cross-Cutting Intermediate Results:

A. (Learning and Capacity Building): CRS staff and partners have the tools and capacity necessary to develop, implement and manage successful Agriculture and Environment projects; share and integrate lessons; and advocate for pro-poor agricultural development.

B. (Gender): Agriculture and Environment programming equitably promotes and responds to the needs of women, men, and youth.

C. (Advocacy): CRS and partners influence pro-poor agricultural and environmental relief and development processes at the global, regional, and local levels.

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