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# MID-TERM PERFORMANCE EVALUATION OF THE CAMBODIA HARVEST PROJECT (HELPING ADDRESS RURAL VULNERABILITIES AND ECOSYSTEM STABILITY)

December 2013

This publication was produced at the request of the United State Agency for International Development. It was prepared independently by Dr. George Gray (team leader), Dr. David W. Hess, Mr. Roy Hagen, Mr. Matt Zimmerman, Mr. Piseth Vann, Mr. Sithon Khun, Mr. Sophoan Khong, and Mr. Tola Prom. The authors' views expressed in this publication do not necessarily reflect the view of the United States Agency for International Development or the United States Government.



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## Table of Acronyms

AAD	Activity Appraisal Document
ADB	African Development Bank
AFD	Agence Francaise de Development
AsAg	Assistance Agreement
AUSAID	Australian Agency for International Development
CARDI	Cambodian Agriculture Research and Development Institute
CBNRM	Community Based National Resource Management
CCPF	Central Cardamom Protected Forest
CDA	Commune Development Agency
CDRI	Cambodia Development Resource Institute
CF	Community Forest
Cfi	Community Fishery
CFIMC	Communal Fishery Management Committee
CFMC	Communal Forest Management Committee
CIRIS	Client Impact and Results Information System
CPA	Community Protected Area
DA	Department of Agriculture
DCA	Development Credit Authority
EC	European Commission
ELC	Economic Land Concession
FA	Forestry Administrator
FAO	Food and Agriculture Organization
FBA	Farm Business Advisor
FFI	Fauna and Flora International
FiA	Fisheries Administrator
FSE	(Office of ) Food Security and Environment
FTF	Feed the Future
FTF-C	Feed the Future Cambodia
GCCD	Global Climate Change Development
GCCI	Global Climate Change Initiative
GEFE	Gender Equality and Female Empowerment
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IDPoor	Identification (of poor households)
IFC	International Finance Commission
IPM	Integrated Pest Management
JICA	Japan International Cooperation Agency
LOP	Length of Program
M&E	Monitoring and Evaluation
MAFF	Ministry of Agriculture Forestry and Fisheries

MDG	Millenium Development Goal
MIS	Market Information System
MOH	Ministry of Health
MSME	Micro, Small and Medium Enterprise
MPTE	Mid Term Performance Evaluation
NBSAP	National Biodiversity Strategy and Action Plan
NCDD	National Committee for Management of Decentralization & Deconcentration
NGO	Non Governmental Organisation
NRM	Natural Resource Management
NTFP	Non Timber Forest Product
PA	Protected Area
PDA	Provincial Department of Agriculture
PMEP	Performance Monitoring and Evaluation Plan
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RGC	Royal Government of Cambodia
SMS	Short Message Service
STTA	Short Term Technical Assistance
TA	Technical Assistance
TOT	Training of Trainers
USAID	United States Agency for International Development
USG	United States Government
WASH	Water and Sanitation Health
WEAI	Women's Empowerment in Agriculture Index
WB	World Bank
YID	Youth in Development

## Executive Summary

### Background

This report describes the results of the Mid Term Performance Evaluation of the HARVEST Program, undertaken after thirty five months of program implementation.

The HARVEST Program responds to U.S. Foreign Assistance goals under the U.S. Feed the Future (FTF) Initiative and the U.S. Global Climate Change Initiative (GCCl) and requirements for USAID's annual biodiversity earmarks. The Contract Scope of Work Describes the Program Objective as: Improving Food Security through Enhanced Agricultural Development and Rational Management of Natural Resources. The program is comprised of four components i.e. 1) Food availability increased 2) Increased food access through rural income diversification 3) Natural Resource Management and Resilience to Climate Change increased 4) Capacity of Public, Private and Civil Society to Address Food Security and Climate Change Increased. In addition it was noted that "The Contractor shall incorporate nutrition into program activities when logical and where synergies exist as another key focus of this program objective".

HARVEST began in December 2010 and will end in December 2015.

### Evaluation design and methods

This evaluation was designed to address the areas of 1) relevance; 2) effectiveness and efficiency; 3) impacts; 4) sustainability; and 5) recommendations for current and future programming that may be applied under HARVEST and/or follow-on designs. In doing so it referred to the Components and Elements as outlined in the HARVEST Contract and assessed the following:

- 1) The extent to which HARVEST and each of its program components met objectives and expected results per its contract, under Feed the Future, and Global Climate Change
- 2) The effectiveness of program interventions in increasing incomes and economic benefits; strengthening natural resources management and resilience to climate change; and improving the wellbeing, including food security, of targeted beneficiaries (with special consideration of women, youth, and minority groups).
- 3) Additional technology that could potentially be integrated into various program components to achieve objectives of the contract.
- 4) The extent to which HARVEST met the priority outcomes defined in USAID's Gender Equality and Female Empowerment (GEFE) Policy and USAID's Youth in Development (YID) Policy.
- 5) The extent to which HARVEST built the capacity of local partners (government, academia, NGOs, farms and other private sector enterprises, women, minority groups, etc).
- 6) The sustainability of the results obtained by the program under each component/activity.
- 7) The opinion of development partners (donors, NGOs) and other partners (farmers and other private sector entities, government agencies, both direct beneficiaries and other community members) about the effectiveness of the HARVEST program.

The evaluation work plan consisted of three phases: 1) Initial document review and desk study prior to arrival in-country; 2) Fieldwork in country: This included key informant interviews and focus group discussions, two of which (one mixed, one all female) were

held in each of the four Provinces where HARVEST is operational. Other meetings were held with program management, beneficiaries and other stakeholders (both public and private sector) as listed in Annex D. The evaluation also assessed the program Monitoring and Evaluation (M&E framework, including the initial baseline assessment, to determine the extent to which it effectively monitors program progress, captures key impacts and can provide the data necessary to inform future programming. 3). Report preparation and editing in response to comments from stakeholders.

### Findings

HARVEST has placed major emphasis upon increasing the availability of food (Component 1), and considerable effort has gone into the development of commercial horticulture in particular. HARVEST's agriculture value chain support activities are leading to increased economic benefits. Incomes are also increased in rice and fish production, but to a lesser extent and with less reliability.

Component 2 (Increased Food Access through Rural Income Diversification) has been less effectively addressed. Few of the off-farm income generating activities were making a significant impact on incomes and beneficiaries reported that their time was better spent in other activities. Home gardens are viewed primarily as sources of cash rather than additional food. Their direct impact upon improved food consumption appears to be less than might be expected, however, if increased cash is utilized for increased purchase of health, hygiene or sanitation improvements, this impact may be greater than could be observed through this assessment.

Results under Component 3 (Natural resource management and resilience to Climate Change increased) although positive do not explicitly relate to NRM. Significant parts of the contractual obligations for the NRM component have not been met by the contractor. HARVEST has not made direct investments in the development of sustainable Natural Resource Management (NRM), and HARVEST support to Community Forestry (CF) and Community Fisheries (CFi) is not leading to the development of market oriented, self-financing community enterprises for sustainable NRM.

The fourth Component relating to capacity development has been well addressed insofar as it relates to increased agricultural production, but except for provision of long-term training through 66 number of ongoing regional and domestic graduate level scholarships, capacity building has not been strongly addressed outside of this area.

The nutritional aspect of HARVEST has been well developed within the constraints of available resources. A reasonable degree of coverage of beneficiaries has been achieved.

HARVEST technologies have increased smallholder producers' resilience to climate change in a horticulture, rice production and aquaculture.

Levels of inclusion of women exceed targets, but for the poor and the youth, targets are not being met and HARVEST is working to identify avenues to increase this.

HARVEST insofar as it is the principal implementing mechanism for the Mission's integrated FTF and GCCI program, has been integrated in Mission strategic planning

within the overall draft Country Development Strategy Results Framework and earlier strategy documentation. It has not been effectively integrated in the implementation management of Mission program activities.

The ASAG under which HARVEST operates has proved inadequate to meet the requirements for cooperation between HARVEST and some line ministries within the RGC. Further USAID/RGC interaction is required to sensitize RGC staff at the Ministry and PDA level to allow HARVEST and RGC staff in the field to officially recognize and interact with each other.

Two years into program implementation, fundamental issues of program management (in particular the extent to which HARVEST might work with the RGC and implications of misinterpretation of “working with” versus funding the RGC, the proposed modification of the program’s policy agenda, and the issues relating to CF and CFi policy and sustainability) remained unresolved.

### Conclusions

**Food Security** - HARVEST results are focused largely upon the availability component of food security. The accessibility of food has been only marginally addressed. The utilization component of food security has been addressed through nutritional training, but more needs to be done in this area. Most critically from an FTF-C perspective, HARVEST interventions are not well suited to benefit the ultra-poor or extreme poor, i.e. the most vulnerable households. The overall program design is not appropriate to support the development of the poor youth, illiterate and elderly, effectively.

High levels of malnutrition recorded for the target areas by the baseline survey would suggest that further efforts to reach a larger proportion of all households with nutrition focused interventions (both poor and non-poor) would be well justified. Whether this is done through an intensification of HARVEST activities or coordination with USAID Cambodia’s new nutrition and water/sanitation/hygiene program under procurement currently must await the outcome of this award.

**GCC priorities** - have been addressed by HARVEST within the context of horticultural and agricultural activities, but given the focus of these activities on farming households that are not poor, effective FTF/GCC integration has been limited.

A lack of alignment between contractual obligations and performance indicators has meant that the contractor has effectively not followed large parts of the obligations stated under the NRM component of the results framework. This has meant that when assessed against the contract, performance in this component is inadequate. Almost none of the HARVEST support to forest, fisheries and watershed management are leading to enhanced revenue generation from sustainable NRM. The HARVEST program is closely managed with a strong focus on the achievement of its targets. The CIRIS management information system allows this to be achieved but is limited in the extent to which it reports on the quality of outputs or their impacts.

**GEFE and YID** - The MTPE finds that HARVEST is achieving well relative to GEFE’s main elements of gender equality, female empowerment, and gender integration. The YID

objectives are also incorporated comprehensively in HARVEST planning, but implementation, particularly beneficiary client recruitment and participation, has not achieved targeted levels of youth involvement.

**Capacity Development** - The capacity of farmers has been considerably enhanced, especially those receiving inputs for commercial horticulture, which have allowed them to make a sustainable paradigm shift in production technology. Some fish producers have also benefitted from a similarly innovative approach.

Nevertheless, commercial horticultural producers remain dependent upon extension for advice. Extension capacity has been developed within local NGO representatives subcontracted to the HARVEST program. This is of concern since there is no guarantee that such technical assistance capacity will continue to be available to growers post HARVEST. Selected input suppliers have also enjoyed extensive capacity development although this has been focused upon the provision of services to HARVEST clients and has thus been specific rather than general in nature. HARVEST has undertaken some capacity development of RGC staff, (training courses in REDD+ and local participant training activities - internships and scholarships), and informally staff have been invited to training sessions and field days. Capacity building for CF and CFi has been limited and has missed the opportunity to focus on market-oriented, revenue generating, self-financing, and management needs.

**Sustainability** - The beneficial impacts of HARVEST interventions in horticulture are enough to generate sustainability and replication amongst those farmers with the capacity for investment, although questions remain regarding the high level of dependence on program technicians. Aquaculture faces several barriers to sustainability including the limited availability of high quality fingerlings, high market volatility, and extreme flooding events. The sustainability of technical assistance capacity to support production is a major concern.

The sustainability of HARVEST's policy reform and enabling environment accomplishments is an open question. There appears to have been little sustained leadership from key RGC offices. Rather, the work and the conceptualization of the documents reportedly were led by consultants.

There are no sustainable forest or fishery management systems in place for the production of wood products or fish from CF or CFi. This is primarily due to the lack of self-financing mechanisms.

There will probably be some continuation of nutritional messaging post-HARVEST through other NGOs. Nevertheless the program must now begin to seek out alternative mechanisms if it is to achieve real sustainability of nutrition messaging capacity within target communities.

**Management** - Turnover ratios of subcontracted field technicians are high. This may reduce the quality of the service that they can provide to clients while the turnover results in additional training costs, and a lower standard of training.

In the absence of direct agreements between USAID and line ministries (the direct economic growth assistance agreement is with the Office of the Council of Ministers) it has been difficult for higher level RGC staff to cooperate with HARVEST and the relationship between HARVEST and RGC staff at the PDA level and above has suffered as a result.

### Recommendations

**Food Security** - In line with FTF-C, separate interventions should be developed for the poorest households. These may include a greater emphasis on social group formation and increased reliance upon and development of local government (i.e. Commune level) capacity. Nutritional training and WASH activities can be promoted amongst the poorest with immediate benefit, but a community based approach that allows the poorest to integrate with the less poor (including self help groups) will be more sustainable. The development of natural forest management for the sustainable production of wood products is an activity that is often especially well suited to benefit the poor.

The program should also complement its progress in increasing food availability with a greater emphasis on the development of marketing linkages and capacity.

Indicators of nutritional impacts (weight for age and stunting at 24 months) should be recorded on a regular basis to assess the impact of nutritional interventions.

**GCC priorities** - In the remaining two years, in consultation with the USAID Cambodia environment team and SFB AOR, HARVEST should focus its main NRM sector efforts on areas such as: a) the development of sustainable, market-oriented, self-financing CF and CFi management systems on pilot sites and; b) on national CF and CFi policy, legal or regulatory reforms to be informed by the pilot systems developed. Fisheries policy reform should also integrate lessons learned from the CFi along the border with Viet Nam that have recently been authorized to conduct commercial harvests. The pilot work should focus on the five existing CFi supported by HARVEST and on at least eight CF with at least two per province. Community fisheries should be developed in ways that provide equitable sharing of benefits and costs by the poorest segments of fishing communities.

**Capacity Development** - The program should proactively seek out and develop alternative options for the provision of technical assistance to growers and producers once HARVEST is completed. These may include MAFF (although it is recognized that capacity and funding constraints may limit this option), CARDI, private sector input suppliers, marketing wholesalers and others, including NGOs. Contract farming/out-grower schemes offer opportunities to embed technical assistance capacity within horticulture, rice and aquaculture value chains.

**GEFE and YID** - In line with YID, HARVEST should increase its inclusion of youth in its recruitment of participating clients and other forms of beneficiary identification. This may require the development of interventions outside of the main program focus on agricultural production and towards the provision of services, (especially in marketing), trade and transport, as well as employment in the processing subsector. The facilitation

of employment through workforce development, apprenticeships and the development of SMS-based employment information networks that can reduce search times may also be beneficial. Natural forest management for the production of wood products can create employment opportunities for youth.

**Sustainability** - With regard to the NRM component, It is recommended that the focus upon the original contract objective of sustainable management and conservation of the natural forest and fishery resources should be maintained. The contract should be modified to ensure that the performance indicators are reasonably achievable within the remaining term of the contract and reflect sustainable natural resource management and that HARVEST should refocus its energies on meeting that objective.

**Management** - HARVEST should be integrated more effectively within the overall Mission program portfolio implementation and management. Where field operations overlap or are contiguous, HARVEST should maximize collaboration with health, governance, and forest/biodiversity activities. HARVEST's policy agenda actions should be linked within an overall USAID policy agenda across the Mission's program.

The relationship between the RGC and HARVEST needs to be readdressed to allow for a more effective working relationship between RGC and HARVEST staff at all levels.

The matter of unresolved contractual obligations suggests that while a framework for effective coordination is in place, an improved working relationship between HARVEST and USAID is necessary if outstanding contractual matters and any other issues that might arise in the future are to be addressed effectively.

The program should increase its monitoring of quality of service to clients, including changes in the M&E data collection to allow for the monitoring of impacts as well as activities.

## 1. Introduction

HARVEST is the lead program in the USG's development assistance efforts to address Food Security, Global Climate Change and Biodiversity Conservation in Cambodia. This Mid-Term Performance Evaluation (MTPE) is undertaken to 1) assess progress towards the achievement of expected results; 2) assess the effectiveness of project design and implementation approach; 3) assess impacts and sustainability of the program; 4) propose actionable recommendations based on the lessons learned. The MTPE is designed to inform program management both within USAID and in HARVEST. Its recommendations are intended to guide implementation for the remaining period of the project.

The evaluation addresses 1) the extent to which HARVEST and each of its program components met objectives and expected results per its contract, under Feed the Future, and Global Climate Change; 2) the effectiveness of program interventions in increasing incomes and economic benefits; strengthening natural resources management and resilience to climate change; and improving the wellbeing, including food security, of targeted beneficiaries (with special consideration of women, youth, and minority groups); 3) additional technology that could potentially be integrated into various program components to achieve objectives of the contract; 4) the extent to which HARVEST met the priority outcomes defined in USAID's Gender Equality and Female Empowerment Policy and USAID's Youth in Development Policy; 5) the extent to which HARVEST built the capacity of local partners (government, academia, NGOs, farms and other private sector enterprises, women, minority groups, etc.); 6) the sustainability of the results obtained by the program under each component/activity; 7) the opinion of development partners (donors, NGOs) and other partners (farmers and other private sector entities, government agencies, both direct beneficiaries and other community members) about the effectiveness of the HARVEST program.

The MTPE exercise consisted of three phases: 1) Initial document review and desk study prior to arrival in-country. 2) Fieldwork in country: This included key informant interviews and focus group discussions, two of which (one mixed, one all female) were held in each of the four Provinces where HARVEST is operational. Other meetings were held with program management, beneficiaries and other stakeholders (both public and private sector) as listed in Annex D. The evaluation also assessed the program Monitoring and Evaluation (M&E) framework, including the initial baseline assessment, to determine the extent to which it effectively monitors program progress, captures key impacts and can provide the data necessary to inform future programming. 3). Report preparation and editing in response to comments from stakeholders.

This evaluation report consists of three sections. This Introduction section is followed by a second section describing the Background to the HARVEST program, the main program components and Results Framework, and the Evaluation Methodology. Finally a third section details the findings, with conclusions and recommendations.

## 2. Background

### National Context

Cambodia is a predominantly rural society with more than 70 percent of the population reliant on agriculture, fisheries and forestry for their livelihoods. While output and food availability, as well as health indicators have improved steadily in the last decade, serious challenges remain in terms of high incidence of poverty and food insecurity. The HARVEST program aims to increase food availability and access by bolstering productivity of agriculture, fisheries and forestry; strengthen value adding chains; and create private-sector led rural employment.

Cambodia is both a priority Global Climate Change Development (GCCD) Sustainable Landscapes and Adaptation country as a tropical forest country where significant forest carbon resources can be protected to mitigate climate change and a climate-vulnerable country, both in terms of exposure to physical impacts of climate change and socio-economic sensitivity to those impacts. Cambodia's forests have been the focus of massive deforestation largely due to illegal logging and land conversion for agriculture and other economic uses. The forests have also received a great deal of international and national attention related to protection and conservation. Moreover, Cambodia's dependence on its riverine and lake fish resources for huge proportions of the rural and urban poor's protein intake is specific and relatively unique aspect that is threatened by climate change as well as by massive hydro-power dam development

Cambodia's climate vulnerabilities include the likelihood of significant physical changes, the dependence of much of the population on climate-sensitive sectors, the high percentage of the population in flood prone areas, and the limited ability of the country's economy to respond to climate changes. Because Cambodia is one of the most vulnerable countries in Southeast Asia, climate change activities that enhance the resiliency of agriculture and sustain ecosystem functions are expected to contribute to the core of HARVEST activities.

### The Harvest Program

HARVEST was conceived, designed and announced for competitive solicitation during the early phases of evolution of the President's Feed the Future Initiative (FTF). Additionally, subsequent to HARVEST's design and implementation launch, USAID/Cambodia developed its Cambodia Feed the Future FY 2011-2105 Multi-Year Strategy (FTF-C). Throughout the development of that strategy and other FTF strategy development processes, HARVEST has served as a continuously developing field example of a program of activities designed to fit those evolving strategies and processes. It is managed by the Food Security and Environment Office in collaboration with relevant USAID/Cambodia programs addressing nutrition and improved governance where appropriate. The program is expected to work closely and coordinate efforts with USAID/Cambodia's other programs, especially those related to health.

The HARVEST program began in December 2010 and will end in December 2015. This Mid Term Performance Evaluation (MTE) provides an assessment of program activities to as of November 2013.

The HARVEST Program responds to U.S. Foreign Assistance goals under the Feed The Future (FTF) and the USAID strategy for Global Climate Change Initiative (GCCCI) and Biodiversity earmarks. Towards this end, it is a central focus for supporting Cambodia's Millennium Development Goal targets, including:

- MDG 1: Eradicate Extreme Poverty and Hunger
  - Target 1: Halve, between 1993 and 2015, the proportion of people whose income is less than the national poverty line
  - Target 2: Halve, between 1993 and 2015, the proportion of people who suffer from hunger<sup>1</sup>
- MDG 7: Ensure Environmental Sustainability
  - Target13: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources

The HARVEST Scope of Work Describes the Program Objective as: *Improving Food Security through Enhanced Agricultural Development and Rational Management of Natural Resources*. In addition, HARVEST was originally expected to accelerate progress for achieving specific, measurable results essential to attaining USAID/Cambodia's *Strategic Objective 3: Improved Political and Economic Governance*<sup>2</sup>.

HARVEST activities aim to improve the business enabling environment for catalyzing agribusiness-led growth, and reducing poverty and hunger. In the face of threats to biodiversity and climate change HARVEST aims to increase the resiliency of Cambodian livelihoods by increasing efficiencies across agricultural supply chains, diversifying livelihoods, creating wealth from practicing responsible stewardship of globally unique natural resources, and increasing Cambodia's ability to adapt to climate shocks and severe weather events. To achieve the Program objective, HARVEST focuses on achieving the four Components and 15 Elements listed in the Results Framework below:

#### ***HARVEST Results Framework***

Program Objective: *Improving Food Security through Enhanced Agricultural Development and Rational Management of Natural Resources*

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<sup>1</sup> For detailed target information got to: <http://www.mop.gov.kh/Default.aspx?tabid=156>, Cambodia MDGs.

<sup>2</sup> This reference to SO3 is now considered outdated. HARVEST is instead intended to contribute to the Reduced Rural Poverty Development Objective, although the strategy that codifies this has not yet been completed.

***Component 1: Food Availability Increased***

- Element 1.1: Agricultural Input and Production Systems Enhanced
- Element 1.2: Improved Varieties and Cultivation Techniques Adopted
- Element 1.3: Rural Production Systems Diversified
- Element 1.4: Agricultural Policy Framework Enhanced

***COMPONENT 2: Increased Food Access through Rural Income Diversification***

- Element 2.1: Post Harvest Systems Strengthened
- Element 2.2: Market Access and Linkages to Smallholders Improved
- Element 2.3: Rural Employment Generation Expanded
- Element 2.4: Investments in Marketing Infrastructure Increased

***COMPONENT 3: Natural Resource Management and Resilience to Climate Change Improved***

- Element 3.1: Key Natural Assets Accurately Inventoried and Valued
- Element 3.2: Enabling Environment for Resource Management Enhanced
- Element 3.3: Environmental Monitoring and Management Improved
- Element 3.4: Economic Benefit from Sustainable Management and Conservation Increased

**COMPONENT 4: Capacity of Public, Private and Civil Society to Address Food Security and Climate Change Increased**

- Element 4.1 Capacity of Producer Groups & Private Sector Networks Increased
- Element 4.2 Capacity for Adaptive Research and Extension Enhanced
- Element 4.3 Capacity for Climate Change Mitigation and Monitoring Established

**Evaluation Design and Methods**

This evaluation was designed to address the areas of 1) relevance; 2) effectiveness and efficiency; 3) impacts; 4) sustainability; and 5) recommendations for current and future programming. In doing so it has referred to the Components and Elements as outlined in the HARVEST Contract and to the matrix of evaluation questions detailed below.

**Relevance**

The MTPE evaluated the extent to which activities developed by the program are relevant to the program objective. The evaluation also determined the extent to which HARVEST activities were relevant to the following:

- Feed the Future objectives and targets for USAID/Cambodia, with particular reference to the incorporation of nutritional objectives;
- Global Climate Change (Adaptation and Sustainable Landscapes) and other environment (natural resources management and biodiversity conservation) objectives and targets for USAID/Cambodia;

- The successful integration of FTF and GCCI activities and effective achievement of results for both initiatives;
- USAID/Cambodia's gender equality and female empowerment objectives.

The evaluation gathered information on the perception of development partners, government counterparts, and stakeholders about the HARVEST program. The evaluation specifically addressed areas such as coordination of implementation with other development partners and government (national to local) entities; the approaches and technologies promoted by the program; whether stakeholders consider the program to be important; the appropriateness of beneficiary selection procedures; and whether or not the needs of the beneficiaries have been addressed.

### **Effectiveness and Efficiency**

The evaluation assessed which aspects of the program are working well and which are not and the reasons for performance in each case. This included an assessment of major challenges facing, or opportunities available to HARVEST in the implementation and achievement of results as well as the actions required to address these. The evaluation also assessed the appropriateness and effectiveness of management arrangements and provided recommendations for improvement, where relevant.

### **Impacts**

The evaluation assessed the impact of HARVEST on increasing incomes and economic benefits; strengthening natural resources management and resilience to climate change; and improving the wellbeing, including food security, of targeted beneficiaries. Specifically, the evaluation assessed the impact HARVEST has had on:

- 1). The poor, including not only those poor households impacted by production and market strengthening activities, but the wider cross section of poor households within the communities including those that benefit from nutritionally focused interventions.
- 2). Women and minority groups (including the illiterate and elderly).
- 3). The youth.

### **Sustainability**

The evaluation analyzed HARVEST's approach to the capacity development of local institutions and stakeholders to implement program activities and to continue these activities without further technical and financial assistance. The MTPE identified potential weaknesses or threats to sustainability where relevant, and provided recommendations for addressing them.

### **Future Programming**

The evaluation identified actions that are required for HARVEST to achieve its objectives and actions that could practically improve program performance during the remaining half of the HARVEST contract.

The evaluation also identified activities, approaches or issues that should be incorporated into the design of future programming after the conclusion of HARVEST.

### **Matrix of Evaluation Questions**

To enable the evaluation to be presented in a comprehensive format that includes all of the aspects described above and which conforms to the framework outlined in the Evaluation Scope of Work, the evaluation was guided by the following questions (These are outlined in greater detail for each aspect of the evaluation in Annex B)

1. To what extent and how has HARVEST and each of its program components met objectives and expected results per its contract?
2. Have program interventions been effective in increasing incomes and economic benefits; strengthening natural resources management and resilience to climate change? Are there specific types of additional technology that are not used but can potentially be integrated into various program components to achieve objectives of the contract?
3. To what extent and how has HARVEST and each of its program components met the priority outcomes defined in USAID's Gender Equality and Female Empowerment Policy and USAID's Youth in Development Policy?
4. To what extent and how has HARVEST built the capacity of local partners (government, academia, NGOs, farms, private sector enterprises, women, minority groups, etc.)?
5. To what extent are results sustainable and are there practical adjustments that can improve the sustainability of results during the latter half of the HARVEST program?
6. What is the opinion of development partners, government agencies, and other stakeholders about the effectiveness of the HARVEST program? What opportunities exist for replication and scaling up?

### **Assessment of Results**

The HARVEST Contract Scope of work describes 15 "program elements" corresponding to Sub-IRs, each of which outlines the obligations of the contractor together with illustrative interventions that might be implemented to achieve each element. The evaluation assessed the various activities under the program in the light of these elements and associated obligations, determining in each case the extent to which the actual interventions have met the objective of the element.

The evaluation also assessed the program M&E framework, including the initial baseline assessment, to determine the extent to which it effectively monitors program progress, captures key impacts, and can provide the data necessary to inform future programming.

### **Tasks and Responsibilities**

The following aspects of HARVEST were assessed by each of the four different Team units:

**Unit 1: Policy and Enabling Environment**

1. The extent of progress made in terms of policy development to support reforms at the national and sub-national levels in the areas in which HARVEST was specifically tasked to engage.
2. The development of capacity of policy makers to identify and create policies that better support agricultural production and agribusinesses.
3. The impact of policies and the enabling environment on sustainability, considering especially the way in which the required policy work listed above complements specific program investments.

**Unit 2: Natural Resource Management**

1. The program interventions related to natural resource management (of forests, communal fisheries and watershed, and, where relevant, agricultural practices).
2. The physical, commercial and institutional sustainability of program interventions.
3. Progress made in the strengthening of biodiversity conservation as well as support to environmental management and conservation of natural resources.
4. Policy initiatives directly relevant to natural resource management.

**Unit 3: Agribusiness and Aquaculture**

1. Progress made in terms of increased food availability through technology transfer (including improved post harvest storage)
2. Improvements in access to food through the development of market linkages and reduced transaction costs.

**Unit 4: Nutrition, Capacity development and program management**

1. The nutritional interventions deployed by the program in terms of efficacy and sustainability of impacts.
2. Program interventions designed to increase the capacity of public, private and civil society groups and institutions.
3. Program management from the perspectives of management structure, effectiveness and monitoring and evaluation.

Each team/unit developed recommendations for future programming relevant to the particular aspects of the program that they assessed.

**Evaluation Work plan**

The evaluation work plan consisted of three phases: 1) Initial document review and desk study prior to arrival in-country. 2) Fieldwork in country: This included key informant interviews and focus group discussions, two of which (one mixed, one all female) were held in each of the four Provinces where HARVEST is operational. Other meetings were held with program management, beneficiaries and other stakeholders (both public and private sector) as listed in Annex D. The evaluation also assessed the program Monitoring and Evaluation (M&E) framework, including the initial baseline assessment, to determine the extent to which it effectively monitors program progress, captures key impacts and can provide the data necessary to inform future programming. 3). Report preparation and editing in response to comments from stakeholders.

### 3. Findings

#### 3.1 HARVEST Program Results as per HARVEST Contract, Feed the Future<sup>3</sup>, Global Climate Change and Development Strategy<sup>4</sup>

##### Findings on results per expected contract targets

###### *Introduction*

The MTPE assessed HARVEST program results in the context of the contract obligations, defined for the program and each Component and Element, and modified contract targets as described for the program and each Component in the Performance Indicator Report - Annex 2 of the 2013 HARVEST Annual Report. Illustrative activities were not considered to be contractual obligations.

###### *Overview*

The objective of HARVEST is to improve food security. This is to be achieved through enhanced agricultural development and rational management of natural resources. Nevertheless, the overarching contractual obligations do not refer to food security beyond “the collection and integration of HARVEST components to form a unified goal to address food security and global climate change”. One overall indicator (prevalence of households with moderate or severe hunger) is directly related to the program objective. It has been measured as part of the baseline survey but not measured subsequently and the target has yet to be determined. It is therefore impossible to assess progress to date towards the primary objective of HARVEST. This is unfortunate since it allows no ongoing monitoring of the hypothetical linkages between food security on the one hand and enhanced agricultural development and rational management of natural resources on the other.

###### *Component 1: Food Availability Increased*

- “The Contractor shall enhance agricultural input and production systems, ensure the adoption of improved seed and germplasm material, modern cultivation techniques, and the diversification of cropping and farming systems.”

This component is derived from four key elements, each of which has its own set of contractual obligations. The results achieved by HARVEST are described against these for each element as follows:

###### **Element 1.1:**

- “The Contractor shall assist agribusinesses with providing improved and more affordable products and services including those associated with seeds, fertilizers, plant protection and animal health products. The Contractor shall also support improved farm management practices such as soil and water

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<sup>3</sup> <http://www.feedthefuture.gov/country/Cambodia#tab2>

<sup>4</sup> [http://carpe.umd.edu/Documents/2012/Climate\\_change\\_and\\_development.pdf](http://carpe.umd.edu/Documents/2012/Climate_change_and_development.pdf)

conservation and management that increase the efficiency of agricultural inputs.”

HARVEST has developed the capacity of agribusinesses to supply improved inputs to producers. A detailed assessment of developments in this area is given in the Chapter 7: “HARVEST Cambodian Partner Capacity Building Achievements – Input Suppliers”.

Horticultural practices promoted by the program are effective at improving soil and water conservation, improving management of farms, and increasing yields. Raised beds, plastic mulch, drip Irrigation, and trellising are all effective at reducing the impact of flooding and drought, reducing workload in some cases (e.g. transporting water from source to field, and weeding), and increasing yields and income (up to three times and ten times respectively compared to before the program). Yield and income increases have exceeded original program targets.

Rice culture practices promoted by the program lead to more modest increases in yield than the horticulture component – up to about 25 or 30%, close to the original targets. The practices are highly effective at increasing yields and efficiencies in the rice systems and have a reasonably good chance to be adopted by non-client rice farmers; particularly those practices that are cost-neutral (improved seed varieties and quality, reduced seeding rate, and split fertilizer application).

Aquaculture production and revenue targets are exceeded, but with less consistency than the other two value chains. Some producers do well, others less so, but even for the same producer, profits can vary substantially from batch to batch.

**Element 1.2:**

- “The Contractor shall support the development and introduction of such seed varieties that are high yielding, drought and submergence tolerant, have high market value and are resilient to the more important Cambodian agro-ecological zones. Additionally, the Contractor shall support working with government and private sector partners to disseminate appropriate on farm technologies and provision of extension services to rural producers.”

Harvest has promoted the use of rice varieties that are moderately flood-tolerant (Phka Rumdoul, CAR 9) or moderately drought tolerant (Riangchey, CAR 4), together with the use of short-duration, photoperiod, non-sensitive varieties with durations of less than 120 days, allowing farmers to delay or accelerate planting according to weather conditions. Phka Rumdoul is readily adopted by farmers due to the fact that it produces well under local conditions, and has a high demand in the market. The seed varieties promoted by the horticulture component are also generally well-adapted for the agro-climatic zones where the program works, are high-yielding, have a high market demand.

HARVEST’s development of extension services is currently limited primarily to enhancing the extension capacity of input suppliers. (See Chapter 7: “HARVEST Cambodian Partner Capacity Building Achievements – Input Suppliers”). The lack of development of extension through other channels may limit the sustainability of impacts. See especially

Element 4.2 for discussion of the program's limited interaction with RGC extension agencies.

**Element 1.3:**

- “The Contractor shall support analyses to identify optimal cropping mixes that result in greater food availability and improved nutrition while adding to household income. The analyses should take cognizance of other HARVEST activities such as facilitating market access for producers and market linkages amongst value chain members. Moreover, activities should aim at the development of sustainable common property resources to help ensure food security and livelihoods.”

HARVEST reviewed existing studies and evaluations undertaken to date on Cambodia's agriculture, forestry and fisheries sectors, as well as issues of cross-cutting importance for their development (microfinance/credit, marketing, gender and youth issues, and others). HARVEST supplemented this information with its own field-based technical assessments of staple food production costs and value chain constraints. These assessments informed the selection of crops in the commercial horticulture and home garden value chains as well as the selection of fish species for aquaculture.

The MTPE did not identify any activities within the agriculture components to develop common property resources for food security and livelihoods development. The evaluation of Element 3.1 determines the extent to which this was done within the NRM component.

**Element 1.4**

- “The Contractor shall address these issues through the provision of assistance for reforms in the areas of predictability of property rights, accelerating implementation of policies concerning the issuance of awards and permits to communities for the rational management of common property resources such as forests and fisheries, removal of illegal fees, and development of rural financial systems targeting the agricultural sector. Further, the Contractor shall support activities that assist in policy reforms to lower the costs of doing business, streamline regulatory procedures, and build the capacity of policy makers to identify and create policies that better support agricultural production and agribusinesses.”

HARVEST developed a policy matrix of 18 items (Annex F) from the program design document and their contract SOW. Through a process that they reported as inclusive of all policy reform actors and institutions, primarily focused on the multitude of offices and divisions of MAFF and MoE, along with limited work with the Ministry of Water Resources and Meteorology, and USAID, they selected 15 areas of assistance in terms of policies, laws, and regulations. They also reportedly took into account programs and activities of other major donor partners in regards to policy reform, including EC, FAO, ADB, WB, IFC, AUSAID, JICA, AFD, and GIZ.

HARVEST then executed a work plan to recruit and manage international and national consultants to work together with national counterparts to:

- carry out analyses of sector realities, issues, and needs
- formulate draft policy related documents
- organize multi-stage consultations and presentations
- finalize drafts for formal review and adoption by the RGC and relevant sub-national bodies

Nevertheless, while the program has undertaken policy reform as requested by the RGC, HARVEST has not been proactive on CF and CFI policy reform.

The MTPE found progress in only 7 of the on the 18 policy areas. Findings for those are noted in Table 1 below. Findings are also noted for those areas (italicized) that have not made sufficient or any progress or that are now due to be eliminated due to budgetary limitations.

**Table 1: Findings on Progress in policy Formulation and Development**

<b>POLICY AREA</b>	<b>STATUS</b>	<b>MTPE FINDING</b>
<b>1) Policy and regulations on aquaculture</b>	<i>Dropped in March 2013 as Fisheries Administration opted for EU Assistance provided without demanding formal request from FiA.</i>	<i>FINTRAC reported that the FIA delayed in getting a request to them for assistance and then advised them of this decision. Uncertain prognosis in important area for food security and safety. FINTRAC and USAID need to track progress of other donor-supported activity.</i>
<b>2) National Policy on Agricultural Cooperatives</b>	<i>RGC request for assistance was received in June 2013. This is now delayed till Feb. 2014 due to contract budget constraints.</i>	<i>Cooperatives were reported to the MTPE as a widely discredited concept linked to political forces and manipulation. HARVEST will need to carefully frame support to advance rural business development based on sustainable market engagement.</i>
<b>3) Law on Quality and Safety of Agricultural Products</b>	First draft competed in September 2012  - Third round of consultant trip in May/June 2013  - Draft for public consultation by	This is an area of significant progress by the FINTRAC team. SPS standards and food safety could be greatly improved at the national level if this legislation and its implementing measures are correctly developed.

Harvest Mid-Term Evaluation

	December 2013	
<b>4) Rice Seed Strategic Plan</b>	STTA being prepared and two local consultants are expected to start before the end of 2013.	Successful implementation in this critical area for Cambodia's most important food commodity requires constant top-level FINTRAC and USAID attention. See Items 6,7,8
<b>5) Agricultural Extension Policy</b>	<i>The request for technical assistance was received in June 2013. It is being considered for STTA in 2014.</i>	<i>USAID indicated that this is a high priority for FINTRACT action. It will be a difficult area that will require careful consideration of the roles of public, private business, and civil society in advancing agricultural improvements in the most sustainable and effective manner. HARVEST has important experience in its work with lead client farmers and agricultural input suppliers. All relevant models from other donors (e.g. AUSAID CAVAC, etc.) need to be considered.</i>
<b>6) Seed Policy</b>	Draft finalized by consultants and last round of comments by development partners in July 2013  Ready for MAFF internal working group when the new government is in place	FINTRAC made considerable progress on this critical area.
<b>7) National Seed Standards</b>	Draft finalized by consultants by end Jan. 2013  Awaits discussions and adoptions by MAFF	FINTRAC made considerable progress on this critical area.
<b>8) Plant Breeders' Rights</b>	Draft finalized by consultants end Jan. 2013	FINTRAC made considerable progress on this critical area.

	Awaits discussions and adoptions by MAFF	
<b>9) Legal aspects of exporting Cambodian rice originating in foreign countries</b>	Study completed and high-level roundtable conducted in late 2012  Disseminated March 2013	FINTRAC widely recognized for providing high quality input to Cambodia's national debate on the issue of the legality of Cambodia's export of rice grown from seed originating outside the country.
<b>10) National Biodiversity Strategy and Action Plan (NBSAP)</b>	Contributed towards identification of NBSAP targets	FINTRAC recognized for providing high quality assistance. The strategy and action plan is not yet done and not funded. MOE hopes HARVEST will fund/support the elaboration of the NBSAP.
<b>11) National Protected Area Strategic Management Framework</b>	<i>STTA is undergoing  Completion of STTA by end 2013</i>	<i>FINTRAC is encouraged to broadly engage national and international partners as well as effected local communities to ensure inclusion.</i>
<b>12) Policy and Guidelines for Establishing Community Protected Areas (CPA)</b>	<i>STTA was scheduled.  Likely to be dropped due to lack of funding</i>	<i>FINTRAC has made efforts at advancing discussion in this area. Institutional differences between MOE and MAFF were cited as indicative of difficulties related to progress on CPAs. FINTRAC encouraged to consider implications of these difficulties for work in CFs and CFIs, particularly on sustainability and revenue generation. FINTRAC is not working with CPA in the field.</i>
<b>13) Policy on Agro Processing</b>	<i>Likely to be dropped due to lack of funding</i>	<i>FINTRAC and USAID need to consider implications of eliminating this work related to HARVEST value chain objectives and targets.</i>
<b>14) Policy on Agriculture Credit</b>	<i>Likely to be dropped due to lack of funding</i>	<i>FINTRAC and USAID need to consider implications of eliminating this work related to HARVEST value chain</i>

		<i>objectives and targets.</i>
<b>15) Strategy on Rice Drying</b>	<i>To begin in 2014</i>	
<b>16) Code of Practice for Soybean Seed Production and Management</b>	<i>Likely to be dropped due to lack of funding</i>	<i>FINTRAC and USAID need to consider implications of eliminating this work related to HARVEST value chain objectives and targets</i>
<b>17) Regulations on Contract Farming</b>	<i>Likely to be dropped due to lack of funding</i>	<i>FINTRAC and USAID need to consider implications of eliminating this work related to HARVEST value chain objectives and targets</i>
<b>18) Horticulture Strategic Development Plan</b>	<i>To begin in 2014</i>	

HARVE noted the following as general challenges to their policy work and accomplishments to date:

- Tendency to over-regulate private investment undertakings due to a lack of understanding of respective roles of public and private sectors
- Significant incentives for public institutions for increased regulations to enhance rent-seeking opportunities
- Weak organizational capacity for policy formulation and implementation'
- Paucity of Cambodian expertise and related dependency on international support
- Wide gaps between "international standards" and "national/local standards"
- New and complicated areas such as contract farming, farmer cooperatives, and food safety regulation
- Political uncertainties leading up to and following July 2013 national elections

All of these challenges are no doubt valid and constrain the program's progress on the policy agenda. However, there is also a major area of the predictability of property rights and tenure that was originally included but is omitted from the policy matrix that HARVEST is now pursuing. HARVEST explained that they made this decision in full consultation with USAID. They justified the decision based on the resources that another donor partner was investing in the area and to its political sensitivity.

The MTPE finds that HARVEST and USAID need to closely monitor progress on property rights and tenure to ensure that potential weaknesses in these policies do not threaten the achievement of HARVEST objectives, especially with regard to revenue streams from

investments in agriculture, agro-forestry, aquaculture, community forestry and community fisheries operations.

Findings related to natural resources management, findings are detailed under Component 3 below, but generally HARVEST has only focused on assistance to registration of Community Forest and Fisheries operations and ignored any related policy issues. In particular, HARVEST has not

#### **Future Policy Formulation**

Regarding policy work, the BFS FTF agenda has evolved during HARVEST implementation. BFS is now working with USAID/Cambodia and the HARVEST implementation team to institute what they call a new policy system development program with three components: a) advancing a policy agenda; b) strengthening institutional architecture (capacity building, consultation among Government, private sector, civil society, and universities/think tanks); and c) fostering mutual accountability. All these areas are to be eventually structured in a FTF approach to policies across the sectors and value chains that are included in the HARVEST program.

identified the policy constraints to sustainable CF and CFi and has not sought to revise policies/legal frameworks in this area. For example, commercial uses of community fisheries are banned and commercial uses of community forests are severely restrained, making it impossible to develop self-financing management systems. Another clear need for policy reform concerns the incredibly unwieldy procedures for registration as a CF. The evaluation team met one CF that had been working towards registration for 14 years and still had not completed the process.

### ***Component 2: Increased Food Access through Rural Income Diversification***

- “The Contractor shall strengthen post harvest systems, improve market access for producers and build linkages among different members of the supply chain, expand off-farm income generation, and make targeted investments in marketing infrastructure.”

This component of HARVEST appears to have been only marginally addressed. There has been no significant strengthening of post-harvest systems beyond some limited development of producers’ associations and the provision of assistance to some rice mills. While there has been some support for the marketing of NTFPs, linkages between different members of the major supply chains have too often been restricted to introductions made in the course of field days. Targeted investments in marketing infrastructure have not been made and although there has been some work towards the development of off-farm income generation activities, they have been inappropriate to most household needs and focus group discussions revealed that they were not well appreciated by beneficiaries.

All CF have potential for the sustainable production of wood products and there seems to be significant potential for income generation here. HARVEST has not sought to develop sustainable systems for the production and marketing of wood products.

**Element 2.1:**

- “The Contractor shall support efforts focused on reducing spoilage of existing crops, linking producers to existing processing industries through public private partnerships, fostering development of post harvest processing enterprises, and increasing access to export markets by improving product quality and increasing government and private sector capacity to adhere to international quality standards.”

HARVEST has provided training to horticulture clients on improved harvesting techniques as well as packaging for transport that improves the quality and appearance of the produce. The program introduced a post-harvest quality grading system that allowed horticulture clients to capture higher prices for higher quality produce. The MTPE was not aware of any post-harvest processing enterprises that had been developed beyond support to small rice mills in business development, accessing finance and developing linkages with producers. None of these aspects had been developed to an appreciable extent and more needs to be done in this area if producers are to be effectively supported beyond the end of the program.

The MTPE learned that no public private partnerships had yet been developed, although some business development was anticipated under description of “Public Private Alliances” the anticipated programs did not involve the Cambodian public sector and funds are expected to be used as grants to accelerate business development.

Activities related to “increasing access to export markets” are considered irrelevant to the program goal and are to be dropped from the program upon agreement with USAID.

**Element 2.2**

- “The Contractor shall support activities that work with value chain groups at different links in the chain (producer groups, haulers, millers’ associations, etc) to not only assist producer groups but also enterprises involved in post production and trade activities. The Contractor should also seek out opportunities that exist in establishing partnerships with lead organizations such as contract farming.”

The MTPE observed that HARVEST has undertaken no support of post production activities beyond the support to millers noted under Element 2.2 above. Support to producer groups is assessed in the Chapter7: “HARVEST Cambodian Partner Capacity Building Achievements – Producer Groups”. There had been some interaction with the Rice Millers’ Association, although that institution appears capable of supporting itself. There had been no apparent benefits to producers from this interaction.

There has to date been no support for contract farming, although this is now being considered under the rice element of the program.

**Element 2.3**

- “The Contractor shall support activities that help diversify employment opportunities for on-farm and post-production enterprises, as well as non-

agricultural related enterprises. Contractor efforts shall include a special focus on women, youth, and the landless poor”

The MTPE could find no evidence that this aspect of the program had been addressed insofar as employment opportunities were concerned.

HARVEST has attempted to stimulate the development of off-farm income generating activities in the form of rattan and bamboo handicrafts, mushroom collection and sales, moringa production and processing and charcoal production, as well as the processing of fish (smoked fish and prahoc production). In all cases, these activities have been focused on women, the youth and the landless poor, as stipulated in the contract. Nevertheless they have been limited in extent and there has been no scaling up. The perception of the MTPE was that with the possible exception of the women’s fish processing group, none of these activities were well supported by the beneficiaries themselves and they were unlikely to become significant areas of investment in the future.

Natural forest management for the sustainable production of wood products would present a good opportunity for diversifying rural incomes, including opportunities for the poor and for youth, but this option has not been pursued by HARVEST.

#### **Element 2.4**

- “Small-scale Irrigation infrastructure should be one of the key investments under this objective. Beyond water, in order to address these constraints, the HARVEST Program will support activities that involve small-scale transportation infrastructure, food storage facilities, alternative energy sources, and market infrastructure among other infrastructure investments. Partnerships with public and private sector entities including cost sharing should also be emphasized”

In 2013, the program completed a canal rehabilitation program that will allow 414 farmers on 666 hectares of land to produce rice two or sometimes three times per year. The program provides drip irrigation systems to horticulture clients that generally reduce the amount of labor required for irrigation, use water more efficiently, and increase yields.

The MTPE is not aware of any small-scale transportation infrastructure, food storage facilities, alternative energy sources, or market infrastructure investments under the program. The MTPE is also not aware of any partnerships with public or private sector entities yet developed by HARVEST or that include any kind of cost-sharing arrangements.

#### ***Component 3: Natural Resource Management and Resilience to Climate Change Increased***

Both the Activity Appraisal Document (AAD) and the contract clearly indicate that the program is to focus on sustainable management of natural resources, especially natural forests, fisheries and watersheds. There is also an undefined reference to management of “lands”. The contract specified that the contractor will (3.1.) conduct valuations of

forests, fisheries and watersheds under different management options, (3.2) will support the enabling conditions (especially the policy and legal frameworks) needed for their management, (3.3) will develop indicators and monitoring systems for threats to these resources and the status of these resources, and (3.4) will develop revenue streams for local populations from the sustainable management of these resources. To paraphrase this, the program is to identify the economically most attractive natural resource management options, remove the legal barriers to these options, develop monitoring systems for the management options and generate revenues flows for local populations from these management options. The MTPE finds these obligations comprise a fairly coherent whole that should lead to significantly enhanced natural resources management. Nevertheless, a comparison of the activities for the NRM component in the HARVEST Life of Program (LOP) work plan with the contract, suggests that the contractor has ignored large parts of their obligations under the contract.

**Element 3.1:**

- “The Contractor shall engage key RGC entities including MAFF, MOE, and MOWRAM, and Cambodian research institutions to develop local capacity to conduct economic valuations of key resources and effectively apply the results to support improved resource management.”

No valuation of forests, fisheries and watershed has been done except for a recent valuation of Central Cardamom Protected Forest (CCPF) for carbon credits that was done as a Reducing Emissions from Deforestation and Forest Degradation Plus Conservation (REDD+) activity. Valuations have been done for a few species of fish and for nursery seedlings but not for natural resource management options.

**Element 3.2:**

- “The USG will support analyses and activities for the effective implementation of Cambodia’s current land policy and identify opportunities to clarify and secure resource rights. The primary focal point of these activities will be the consolidation of gains and acceleration of RGC efforts to promote Community-Based Natural Resource Management (CBNRM) of forests, fisheries, water resources and protected areas.”

The program does not intend to work on land policy. With regard to CBNRM, the program:

- has not assessed the needs for policy reform for the sustainable management of forests, fisheries and watersheds,
- has not explicitly identified critical policy barriers that prevent the development of sustainable, self-financing management systems for CF and CFi,
- has not identified the needs for, or advocated for reforms.

This is unfortunate since the Deputy Head of the Fisheries Administration told the MTPE that Fisheries Administration has been seeking donor support for revisions to the

national fisheries policy for the last two years and would welcome HARVEST support for the development of self-financing, commercially oriented CFI systems at pilot sites, as pilot systems that would inform the policy reforms.

The program has initiated multi-stakeholder process of watershed management planning at district and provincial levels that shows considerable promise. It is not clear, however, if this will have any direct impact on the target watersheds before the end of the program.

**Element 3.3:**

- “the Contractor shall support the development of cost effective means of monitoring the status of Cambodia’s productive .... The Contractor shall identify key threats – including climate change - to biodiversity, forestry, environmentally sensitive areas .... The team will also make recommendations for benchmarks toward threat reduction and improvement of environmental degradation.”

The program has done little to identify indicators and to develop monitoring systems of the threats to, and status of, forests, fisheries and watersheds. While the program does provide support to CCPF and the bird sanctuary at Prek Toal, both of them had preexisting management plans and functioning monitoring systems that are now supported by HARVEST.

**Element 3.4:**

- “The HARVEST Program will support a shift from subsistence livelihood activities to commercialization of sustainable natural resource-based products. The Contractor shall build the capacity of local producer groups, CBNRM organizations and businesses to understand market opportunities, meet quality, volume and scheduling standards for natural products, and increase local value addition. Also, the Contractor shall support the capacity of government and local communities to identify and take advantage of opportunities for revenue generation”.

As to increased revenues, HARVEST supports six CFI and 23 CF but the switch from subsistence livelihoods to commercialization at these sites is not taking place. “The Fisheries Law and CFI Guidelines state that CFI is for family and traditional fishing only... with emphasis on fishing for domestic purposes and home consumption” (Blomley, et al, 2010). The law governing community forestry states that no commercial use can take place until five years after a CF is registered and HARVEST is only supporting the steps leading to registration.

Neither in the AAD nor in the contract, did USAID recognize that the legal frameworks for CF and CFI severely restrict the generation of revenues for households and for communities from the community forests and fisheries. Community managers have no legal way of generating revenues to cover forestry or fishery management costs out of revenues generated by the resource that they are called upon to manage.

The contractor has not sought to revise the legal frameworks to make commercial use possible or to find ways to achieve revenue generation within the existing frameworks. Other actors have found ways to do this with FA approval for at least three CF in Siem Reap Province, harvesting and marketing poles (with revenues shared between member woodcutters and community forestry management committee (CFMC)) and one CF in Pursat, conducting silvicultural thinning on five hectares for charcoal production and sale (support for the energy efficient kiln construction and training was provided by GERES). Finally, the two protected areas supported by HARVEST do not generate revenues for communities or for their management costs and will require continued donor support beyond the end of HARVEST. The only case of increased incomes from managed natural resources identified by the MTPE is the prahoc (fermented fish) production by a woman's group at Anlong Oaing CFi in Pursat Province, who are marketing prahoc made from fish caught by the CFi members.

Most of the activities that the contractor categorizes as National Resource Management (NRM) that do, or will, generate increased incomes by the end of the program are household level activities based on the planting of perennial crops (especially fruit trees and bamboo) on farmers' lands, on the cage culture of fish and on the processing of bamboo and rattan. The bamboo comes mostly from bamboo that is already commonly grown by farmers and the rattan is harvested destructively from the unmanaged natural forests including CF. Trees, bamboo and rattan have been planted at very modest scales in some CF and they may eventually generate revenue if they survive. Their care, weeding and protection from threats like wild fire must at present be done largely by volunteer managers and laborers.

The NRM component seems to be more strongly driven by indicators and targets than it is by the contractual obligations. The HARVEST annual report for 2012 makes little or no reference to their contractual obligations. The 2013 second quarterly report for FFI reports intensively on accomplishments versus targets with no reference to the program contract. None of the indicators are specific to the contract. The three remaining program indicators used in the Program Management and Evaluation Plan (PMEP) for the NRM component are high level generic indicators from USAID Washington. The contractor seems to have given more weight to these generic indicators and to their targets than to the obligations defined in the contract.

The PMEP, indicators and targets have all been approved by USAID. Nevertheless, many of the approved LOP work plan activities would not be relevant under the MTPE's reading of the contract, but do contribute to the selected indicators. Thus activities on farmers' fields and for bamboo and rattan processing are recorded as number of people benefiting from increased revenues from NRM activities, thereby contributing to the USAID indicator even though the activity does not support the contract objective.

The guidance for the USAID indicators also leads to internal contradictions. Activities can be reported as increased hectares of land under improved management even though they don't necessarily improve the management of the land. Similarly it is reported that

revenues have increased from improved NRM even though revenues haven't necessarily increased. (An analysis of two of the key indicators is found in Annex E.

Although the contract says nothing about working in protected areas (PA), the program is supporting the CCPF and the Prek Toal bird sanctuary. The decision to work in the two PAs was influenced strongly by the indicator and target for numbers of hectares of biological significance under improved management, although there is no indication as to how the management has been improved or of any impacts of these activities.

***Component 4: Capacity of Public, Private and Civil Society to Address Food Security and Climate Change Increased***

Under Component 4, the contractor is tasked to “support activities that strengthen local capacity to manage and resolve challenges related to food security and global climate change”. This is to be achieved by “working with and through Cambodian institutions with USAID implementing partners playing a facilitation or technical backstopping role.”

Capacity development in Cambodia is undeniably difficult. While civil society in the form of NGOs is relatively strong, the private sector is disorganized and lacks representative associations and advocacy capacity. The RGC lacks the financial and human resources necessary to be a strong base for sustainable capacity development. Under such circumstances, it must be expected that progress towards the Component will be slow and to some extent experimental as different approaches will be tried and may fail or succeed depending upon circumstances that are often beyond the control of the HARVEST program.

Progress towards the achievement of the three elements is as follows:

**Element 4.1:**

- “The Contractor shall support the institutional strengthening of selected organizations (e.g. producer associations, trade groups, private sector entities, local NGOs); the development and strengthening of coalitions/networks of organizations; and the vertical integration of producer groups and contract growers into higher level associations or federations at the provincial and national scale.”

HARVEST has provided considerable support to individual organizations in areas of technical expertise, improved access to finance, linkages with producers/buyers, and other areas, particularly to private sector entities and producer groups. Targets in this area are being exceeded by 30% to date. As yet however, there is little evidence of any development of networks of organizations. Some vertical integration has been achieved, but this has been limited in most cases to the introduction of farmers to potential input suppliers, of MFIs to potential clients, of rice mills to producers and of horticultural producer groups to buyers. In all cases, these appear to have been “arm’s length” introductions, without any subsequent fostering of whatever relationships might develop. In particular, there has been no obvious attempt at arbitration or negotiation

to ensure equitable business dealings, with the exception of HARVEST's interventions to reduce the costs of finance to farmers.

The development of provincial or national level associations or federations has not yet been achieved. Given the lack of institutional development at the grass roots level, such a result is not unexpected and it is quite probable that progress in this area will be limited for some time to come, probably until local institutions have become well established. This may well be beyond the time-span of this program. A failure to achieve progress in this area is more a reflection of optimistic program design than of poor performance.

#### **Element 4.2**

- “The Contractor shall partner with staff from key line ministries, universities and research institutions to jointly undertake analyses and adaptive research while strengthening the technical capacity of the Cambodian partners. Ministry staff and researchers will gain practical experience in selected technical areas including climate change adaptation and mitigation, and adaptation of improved technologies and crop varieties to the Cambodian context.”

HARVEST has endeavored to work closely with RGC partner institutions in the limited advances it has made to date in policy reforms. In the seven cases of significant progress noted in Table 1, there was collaboration on the Draft Law on Quality and Safety of Agricultural Products, the Rice Seed Strategic Plan, Seed Policy, National Seed Standards, Plant Breeders' Rights, Legal aspects of exporting Cambodian rice originating in foreign countries, and the National Biodiversity Strategy and Action Plan (NBSAP). However, the extent of the capacities built through that involvement could not be assessed without a thorough survey of RGC participants.

The aquaculture component of the program has established a working relationship with the University of Battambang, including curriculum development and the initiation of research and development activities. This arrangement is progressing and should result in the enhanced capacity of the University to provide theoretical and practical training in aquaculture to students and producers. There are no parallel activities in either the horticulture or rice value chains. In both, analyses and trials are undertaken by HARVEST itself and no substantive linkages have been developed with line ministries, universities or research institutions for adaptive research. While Ministry staff at the district level have often attended field training sessions, there has been no structured development of practical experience amongst Ministry staff and researchers in technical areas. Indeed, the lack of an effective formal arrangement between HARVEST/USAID and MAFF has precluded such development.

The Performance Indicator Report lists one target relating to progress in this area, namely the “number of people who have received long-term support in agricultural sector productivity or food security training”. Results are 30% below target to date.

- “The Contractor shall support innovative extension and outreach models in Cambodia including extension through input suppliers or local NGOs, contract farming arrangements, farmer-field-schools and provincial extension services.”

More than 1,400 farm input suppliers have been trained in the capacity to advise farmers on the use of chemicals in horticulture and rice production. Of these 18% have benefited from additional capacity development in the form of shop and inventory upgrades, and 7% have been assisted with demonstration plots. Nevertheless, although trainings in business skills and linkage development have exceeded targets by 300%, only 8% of suppliers have increased the range of services offered and only 7% have expanded relationships within the input supply chains.

Fingerling suppliers have been similarly trained to provide advice to fish producers. In both cases, the advice is restricted to the point of sale. Field visits by inputs suppliers were not reported.

Local NGOs form the majority of HARVEST field staff and as such are trained in detail in crop and fish production technologies and their extension. NGO staff working in the three value chains report that such training is more intensive than that which they had previously received from any other program. By contrast, NGO staff working in nutrition report that the majority of HARVEST interventions are conventional and already known in Cambodia. The models applied by HARVEST vary according to the value chain and beneficiary. In horticulture, an intensive one-on-one approach is used for all commercial clients, but for home gardens, while a lead client may receive intensive training; other clients will receive group training at the demonstration (lead client) site. For rice, a lead client will receive direct supervision and training on a regular basis, while clients will participate in group training sessions and may take advantage of extension staff visits to the lead client demonstration site whenever they occur. For aquaculture, advice is provided on a one-on-one basis.

In all cases, (albeit to a lesser extent in rice) the HARVEST approach is characterized by a combination of technical assistance (as above) and the provision of inputs and equipment on a declining co-investment basis. The extent of this input provision is substantial especially for commercial horticulture, and unusual for a development activity, but is considered necessary in order to entice the beneficiary to adopt the improved practices. Inputs are provided on the basis that the additional production achieved will cover the costs of future reinvestment and that such an intervention is therefore sustainable, whereas without the demonstrated impacts of the investment, farmers would be unwilling to invest in the necessary inputs and infrastructure. This approach to extension is clearly effective in achieving adoption and replication in commercial horticulture.

Contract farming arrangements are recognized by HARVEST as a potential solution to the problems of marketing, input supply and sustainability of technical assistance. As yet however, they have not been introduced, although there have been initial discussions

with rice mills who might be interested in securing supplies through the development of contract farming.

Commercial horticulture, rice and aquaculture components have interacted with provincial extension services at the district level in terms of training and participation in field days and field visits. Nevertheless, the lack of any operational agreements between line ministries and HARVEST does restrict the extent to which PDA staff are able to participate in HARVEST activities. Although initial inception and targeting meetings were inclusive of MAFF staff, subsequent relationships between HARVEST and Ministry of Agriculture staff have been at arm's length and not proactively supported by either party. HARVEST has sent the PDA office reports on its activities and invitations to attend field days and training sessions, while the PDA's have allowed HARVEST to interact with which ever households they might wish to target, but without providing any support in making introductions or endorsing HARVEST activities.

#### **Element 4.3**

- “The Contractor shall strengthen awareness of potential impacts of environmental and climate change impacts; establish local capacity to identify and apply adaptation and mitigation strategies; and strengthen linkages to and networks within the global climate change scientific community.”

There has been little progress in the strengthening of awareness of potential impacts of environmental and climate change. HARVEST has developed a three day training course on GCC/REDD for RGC staff, but these have not yet been held (pending RGC identification of participants). Training courses have been held for 65 Commune Council and PA participants.

Local capacity to identify and apply (climate change) adaptation and mitigation strategies has not been established beyond the establishment of five district level watershed management committees, which of themselves do not represent enhanced capacity in GCC/NRM, but could be used as vehicles to achieve this goal.

There is no evidence of strengthened linkages to and networks within the global climate change scientific community having been developed under HARVEST.

Under Component 4, the contractor is also tasked with the development of capacity to formulate and implement policies to foster rational natural resource management and ecosystem functions. This is by implication at the national level, and some progress has been made in this area. A number of individual activities have been undertaken and largely completed. These include the development of one training course in GCC/REDD for delivery at the Royal University of Phnom Penh and one course in remote sensing and GIS for the Royal University of Agriculture, together with field-based carbon inventory training for 20 RGC staff. Other activities include the translation of GCC/REDD documents to Khmer, spatial database design, and the REDD+ feasibility study for the CCPF.

Interaction with the Ministry of the Environment to prepare policies to promote sustainable NRM is also said to be ongoing, but there is little evidence of progress and no outputs have been generated to date.

**Special Note on Nutrition**

- “The Contractor shall incorporate nutrition into program activities when logical and where synergies exist as another key focus of this program objective”

The contract contains no obligations regarding nutrition other than the above. There are no indicators measured for the Performance Indicator Report other than hunger and dietary diversity both of which have been reported for the baseline only. Nevertheless in terms of activities, the program has made home gardens available to over 12,000 households and provided family nutrition training to over 45,000 individuals associated with home gardening and a further 75,000 individuals associated with HARVEST rice interventions. Training consists of 10 courses, including WASH complementary feeding and improved child and adult nutrition, together with one refresher course. These are undertaken whenever possible with the participation of Village Health Support Group members.

The program also includes two mobile demonstration kitchens, which have proven to be highly attractive, generating strong community attendance, and providing family nutrition training for over 15,000 participants. In addition to this, vegetable gardens have been established at over 50 health centers and more than 15,000 school children have received nutritional education. A further 260 commune council members have also been given awareness training in nutrition.

All of the training described above can be expected to contribute towards the improved utilization of food, both through improved sanitation and improved dietary practice. Unfortunately there are no indicators currently recorded to allow the assessment the impacts of these activities.

**Findings on results per FTF**

The primary goal of Cambodia’s FTF multi-year strategy (FTF-C) is improved food security. This is to be achieved through three components:

1. Enhanced productivity in rice, fish, and horticulture
2. Improved rural incomes
3. Improved nutritional knowledge and practice.

In order to achieve the goal of improved food security, interventions in support of these activities are to be targeted at direct beneficiaries, (as opposed to an indirect “trickle down effect”). The FTF-C strategy requires programs “to ensure that activities increase the participation of women, youth and the extreme poor in rural growth and increase their representation as beneficiaries of the program. To ensure improved food security,

it is essential to affect the poorest segment of society – those living in extreme poverty”<sup>5</sup>.

Program indicators show that HARVEST is successfully enhancing the productivity of the three specified value chains, and this enhancement (together with other initiatives) is resulting in improved rural incomes. These impacts of HARVEST interventions are greatest amongst those beneficiaries who are able to provide the necessary co-investment or who have access to adequate land to set up a commercial horticulture unit, home garden, or aquaculture pond. In only a minority of cases (such the fish processing activities) are interventions directed specifically at the poorer sections of communities. Those poor households who did participate suggested that for those with little land, the value of the crops produced from home gardens was insufficient to cover the costs of reinvestment (especially if a significant proportion of the produce was consumed at home). Similar considerations applied to aquaculture and rice production.

HARVEST’s target beneficiaries for these interventions include 20% of the rural poor, which is approximately in line with the World Bank estimate of national poverty headcount (20.5%) and somewhat lower than the 2011 RGC estimates for the ID Poor of 34% (Battambang and Pursat) and 31% (Siam Reap). On a proportional basis, targeting is biased toward those who are not the poorest.

Field staff repeatedly reported that the selection of beneficiaries had been problematic. HARVEST criteria for beneficiary selection include the capacity for co-investment as well as a willingness to act as a client or lead client and good accessibility of fields to facilitate demonstration activities. Such criteria tend to favor the less poor. Selection has been made more difficult by the need to achieve a regular geographic distribution of beneficiaries throughout a target area. Under such conditions, the selection of 20% poor households amongst beneficiaries has not been easily achieved and will become harder if greater emphasis is placed upon those living in extreme poverty.

The difficulties encountered in selecting the beneficiaries that form the primary focus of the FTF-C strategy, suggest that HARVEST interventions in the three selected value chains, although effective in terms of their direct results, may not be the most appropriate to meet FTF-C needs.

The original HARVEST program design was almost silent on the third aspect of FTF- C, i.e. nutrition, and it does not appear as an Element in the results framework. Nevertheless, HARVEST has responded to this aspect of FTF-C through interventions directed at improving nutritional knowledge and practice, including mobile kitchen visits and associated training sessions. While these have been targeted mainly at home garden beneficiaries, other households may also participate. As such, the bias towards the less poor has been reduced and it is likely that these interventions have reached FTF-C focus beneficiaries. Furthermore, it is quite evident not only from available statistics but also

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<sup>5</sup> USAID: Feed The Future – Cambodia, FY 2011-2014 Multi Year Strategy: September 2011, page15.

from the responses of both beneficiary groups and field workers, that inadequate nutritional knowledge and practices are not restricted to the poorest, but are also common amongst those for whom food is available and/or accessible. As such it might be expected that HARVEST interventions in nutrition might achieve impacts that are well aligned with FTF-C, especially in terms of maternal, infant and young children nutrition. Nevertheless, the extent to which this might have occurred is uncertain since although there has been follow up to monitor changes in dietary diversity, there has been no monitoring of either infant growth or any other nutritional indicators.

One constraint to this expectation is the limited response from illiterate training participants, who comprised up to 50% of trainees in some cases, and who clearly indicated their inability to understand the information presented to them. The high proportion of elderly child care providers<sup>6</sup> also meant that behavior change messages were not easily received. Future behavior change practices should be tailored to suit the specific needs of the elderly and the illiterate as well as those frequently away from home, if they are to be effective.

An important aspect of FTF policy not overtly addressed in the program design is that of Resilience and Agricultural Risk Management, which directly contributes to the fourth component of food security in the FTF Results Table<sup>7</sup> (after availability, accessibility and utilization) namely reliability. FTF recognizes the need for households, to mitigate, adapt to and recover from shocks and stresses, in a manner that reduces chronic vulnerability and facilitates inclusive growth, including the development of options for smallholders and communities to engage in the market economy. In practice, HARVEST is largely advancing the engagement of the better endowed small farm households in commercial agricultural production, processing and marketing through value chain facilitation without much if any attention to the needs of the most vulnerable in the target communities to be more resilient to the shocks that occur persistently in the economy and the environment. The program was intended to promote the increased diversity of income streams as a way to enhance reliability of income, but the MTPE found little evidence that this had occurred and in some cases, the higher profitability of commercial horticulture in particular had resulted in the concentration of economic activities.

#### Findings on results per GCCD

HARVEST is 50% funded by resources made available as a GCCI<sup>8</sup> priority country<sup>9</sup>. The program's Climate Change activities feature support for:

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<sup>6</sup> In all communities where health training activities were observed, the audiences consisted predominantly of older household members. Young parents were either in the field or had temporarily left the village often moving as far as Thailand in search of work

<sup>7</sup> The earlier USAID definition of Food Security composed in 1992 contained three components. A fourth – Reliability/Stability now features in the FTF Results Framework.

<sup>8</sup> The program was initiated under the auspices of GCCI, but has been assessed against the more recently developed and up to date GCCD.

- Improved NRM for forest conservation and forest carbon preservation;
- economic alternatives where livelihood activities are affected by climate change;
- development and dissemination of socially and culturally appropriate adaptation measures;
- Strengthening of environmental conservation actions that protect natural ecosystems and their biodiversity on which human development depends.
- Agricultural activities under HARVEST are designed to improve productivity and incorporate programming around adaptation to climate change impacts such as altered temperature or rainfall regimes.

The USAID GCCD Strategy contains three strategic objectives that capture the principles of *mitigation, adaptation* and *integration*, namely:

1. Accelerate the transition to low emission development through investments in clean energy and sustainable landscapes.
2. Increase resilience of people places and livelihoods through investments in adaptation
3. Strengthen development outcomes by integrating climate change in Agency planning, learning, policy dialogues and operations.

All three aspects of GCCD are relevant to HARVEST. Climate change mitigation is of limited relevance to field crop production<sup>10</sup>, where the inter-annual variation in carbon balance is small, but may be important in NRM, particularly forestry, where carbon sequestration can be important, especially in the context of REDD+. Conversely, adaptation to climate change may be difficult to achieve under NRM, (where opportunities for adaptation to climate change remain very poorly defined although the potential may be substantial), but might be important for crop production. Finally the development of capacity to identify appropriate climate change strategies is essential to their integration into effective national and local policies.

With regard to adaptation, the adoption by many smallholders of the technologies promoted by HARVEST, (especially raised beds, drip Irrigation, plastic mulch, trellising and drought or submergence tolerant varieties of rice) has been recorded as an adaptation to climate change by HARVEST. This is a loose interpretation of what is essentially the adoption of good agricultural practices that have been known to increase yields for twenty years or more. Nevertheless, according to the various definitions of GCC adaptation issued under the GCC Operational Plan Guidance, at least 20 of the activities implemented by HARVEST can be considered as adaptations to climate change and as such the program is responding effectively to the objectives of the initial GCC and subsequent GCCD.

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<sup>9</sup> This figure was once only 30%, but increased to 50% when FTF funding was withdrawn.

<sup>10</sup> Although the production of methane and nitrous oxide from paddy fields may be significant

In terms of mitigation, HARVEST's primary response could lie with the development of a sustainable NRM component; especially forest management for the future production of large diameter saw timber. Carbon sequestration can result from decreased deforestation for agriculture or illegal logging. Real improvements in sustainable community forest management can promote carbon sequestration and might thereby mitigate climate change. HARVEST has yet to achieve progress in this area.

The number of climate mitigation/adaptation tools reported to have been developed tested and adopted appears impressive (32) but in practice this number refers primarily to good agricultural practices that provide a degree of resilience to, rather than adaptations to or mitigation of climate change. Again, this indicator appears to be misinterpreted and consequently overstated.

Amongst the NRM activities, adaptation has not yet occurred. One of the main opportunities would be in the area of forest fires. Forest fires are already an important factor, especially in deciduous forests, and forest fires might be expected to become more frequent and severe with climate change. Building capacities for fire prevention, fire suppression and the integration of fire management into forest management should be key measures for climate change adaptation. Other measures could include capacities for enhanced regeneration following severe weather events and capacities for favoring species adapted to the changing climate into silvicultural systems to be developed.

In terms of integration, HARVEST is developing capacity to identify and apply climate change adaptation and mitigation strategies through training and the development of training courses. While 65 stakeholders have been trained at the PA and Commune council level, and at least two courses have been developed, overall results in this area are limited. Beyond participation at a training session, there is little evidence of any enhanced capacity to proactively identify either adaptation or mitigation strategies. The training and courses are generic in nature – they do not include specific adaptation or mitigation measures that have been identified as appropriate for Cambodia. There is no evidence of any strengthening of linkages to and networks within the global climate change scientific community.

Overall, the results achieved by HARVEST comprise an effective response to the priorities of GCCI and GCCD. Adaptation has progressed significantly if it is accepted that technologies normally considered as good agricultural practice have been introduced as an adaptation to climate change. Mitigation has been constrained by a failure to engage in sustainable forest management, especially for the production of wood products, while integration has been limited to the training of a small number of beneficiaries.

#### **Findings on FTF/GCC integration**

Due to the limited progress in NRM/GCC activities, FTF/GCC integration has been mainly limited to the adoption of good agricultural practices that confer resilience to climatic uncertainty. These practices are as important to FTF as they are to GCC, but tend to be focused more upon those outside the ID Poor bracket and as such have only a limited

impact on food insecurity. Activities under the NRM component that might enhance food security amongst the poorest as required under FTF include sustainable forest management, which according to one member of one management committee could generate up to \$8 per day, but HARVEST has not succeeded in moving this forward. Other pro-poor activities include the NTFP collection and processing (e.g. Rattan weaving), although these have been widely undertaken by households in the past and do not represent a new HARVEST intervention.

#### **Findings on coordination with USAID program portfolio**

HARVEST program design is well-integrated with the relevant elements of the Mission's program. HARVEST's nutrition components are integrated with the health portfolio in improvement of health seeking behaviors to contribute to improved health status of vulnerable populations. HARVEST's NRM components are coordinated with the Support for Forests and Biodiversity Program within the same Food Security and Environment Office to achieve equitable and rational management of natural resources. Additionally, HARVEST policy and enabling environment results, though reduced from original program design, support Mission achievement of an improved economic enabling environment.

Nevertheless, in practical terms, there has been little coordination between HARVEST and other programs in the USAID portfolio. The MSME2 program implemented by Development Alternatives Inc. (DAI) ran from 2008 to 2012 and addressed nine rural value chains including aquaculture and forestry. HARVEST staff made no mention of cooperation with MSME or any other USAID program. Nevertheless, there is ongoing HARVEST participation in the Health Working Group and the FSE Office also reported coordination between HARVEST and the "Supporting Forests and Biodiversity" program to advance shared natural resources management objectives.

Beyond USAID, HARVEST rice activities are sometimes coordinated with the JICA-APPP, AusAID-CAVAC and GIZ-RED including the exchange of extension material and the occasional mutual invitation for trainings and workshops. The rice component also cooperates with another GIZ program (part of the ADB-Tonle Sap Lowland Rural Development Program) in jointly organizing Agriculture Fairs in Kampong Thom and Pursat province.

In the area of nutrition, HARVEST has cooperated with the FAO MALIS program that seeks to promote market linkages for smallholders to achieve food and nutrition security. There is no other cooperation in the Horticulture and Aquaculture activities.

With the exception of rice and to a lesser extent nutrition activities, the HARVEST program interacts little with other programs and the MTPE noted no obvious synergies with other development programs.

#### **Conclusions**

The finding of the MTPE as far as results per component are concerned is that HARVEST has placed major emphasis upon the increasing the availability of food (Component 1),

and considerable effort has gone into the development of commercial horticulture in particular which has resulted in substantial achievements in this value chain. Nevertheless there has been substantially less development of other components of the program.

Component 2 (Increased Food Access through Rural Income Diversification) has been only marginally addressed, while the results under Component 3 (Natural resource management and resilience to Climate Change increased) although positive do not generally relate to NRM. Large parts of the contractual obligations for NRM component have been ignored.

There are no market-oriented, self-financing CF or CFi management systems in Cambodia. USAID did not recognize the policy barriers to this type of management and the contractor has not taken measures to remove these barriers through policy reforms. The lack of such tested, proven systems ready for replication/adaptation is probably the single greatest barrier to the type of profit-making, natural resource management that HARVEST was designed to support. The MTPE met both FA and FiA authorities at the national and provincial levels that are very open to both policy, legal or regulatory reforms and to the development of pilot market-oriented CF and CFi systems to inform the policy reforms.

The fourth Component relating to capacity development has been well addressed insofar as it relates to increased agricultural production, but has not been strongly addressed outside of this area. In particular, local capacity to respond to or mitigate the threat of climate change has altered only minimally under the program.

The nutritional aspect of HARVEST has been well developed within the constraints of available resources. A reasonable degree of coverage of beneficiaries has been achieved, but the high levels of malnutrition recorded for the target areas by the baseline survey would suggest that further efforts to reach a larger proportion of all households (both poor and non-poor) would be well justified. The technologies applied may need to be refined to be more applicable to illiterate and elderly beneficiaries. Home gardening may have been useful in providing an entry point for nutritional training, but the responses of beneficiaries suggest that the linkage between home gardening and improved dietary practice amongst the poorest is weak.

As regards FTF-C HARVEST results are focused largely upon only one of the components of food security – food availability. The accessibility of food, as affected by reduced transaction costs and increased income levels has been only marginally addressed. The assumption appears to have been that increased availability will of itself drive down prices, although in a country that trades extensively with its neighbors, there is no guarantee that this will be the case. The utilization component of food security has been addressed through nutritional training, but more needs to be done in this area. The fourth component of food security (reliability) has not been well addressed.

Most critically from an FTF-C perspective, HARVEST interventions are not well suited to benefit FTF-C focus beneficiaries i.e. the poorest and most vulnerable households.

GCC priorities have been addressed by HARVEST in the context of disseminating good agricultural practice, but this has been of limited impact amongst the poor sections of the community, and there has been little effective FTF/GCC integration as a result.

With regard to policy, HARVEST is following a reduced policy agenda compared to program design and implementation management contract solicitation. To date, HARVEST has taken actions on 7 of the 18 items in the reduced agenda and does not intend to take actions on another 6 items, primarily due to reported contract budget funding constraints. Work undertaken to date on the 6 items was judged of high quality and hold significant potential for HARVEST impact. The most critical item eliminated in the selection of the 18 point agenda was support to advancing policy and other legal framework issues related to land and resource tenure.

While HARVEST has been integrated in Mission strategic planning within the overall draft CDCS Results Framework and earlier strategy documentation, it has not been effectively integrated in the implementation management of Mission program activities. HARVEST has not been thoroughly integrated or coordinated with other related donor programs.

### Recommendations

HARVEST should complement its progress in increasing food availability with a greater emphasis on the development of marketing linkages and capacity.

On farm employment generation should not be expected to provide significant income generation (the employment elasticity of agricultural sector growth is generally less than 0.5<sup>11</sup>). Instead, greater attention should be paid to off-farm income generation activities including the provision of marketing services for farmers, and the development of trading and transport activities.

Separate interventions should be developed for the poorest households. These may include a greater emphasis on social group formation and increased reliance upon and development of local government (i.e. Commune level) capacity. Nutritional training and WASH activities can be promoted amongst the poorest with immediate benefit, but a community based approach that allows the poorest to integrate with the less poor will be more sustainable. Indicators of nutritional impacts (weight for age and stunting at 24months) should be recorded on a regular basis to assess the impact of nutritional interventions.

In the remaining two years, HARVEST should focus its main efforts in the NRM sector on: a) the development of sustainable, market-oriented, self-financing pilot CF and CFi management systems on pilot sites and; b) on national CF and CFi policy, legal or regulatory reforms to be informed by the pilot systems developed. Fisheries policy reform should also integrate lessons learned from the CFi along the border with Viet Nam that have recently been authorized to conduct commercial harvests. The pilot work

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<sup>11</sup> Dorosh P. and Mellor J: Why Agriculture remains a viable means of poverty reduction in Sub-Saharan Africa: The case of Ethiopia, Development Policy Review 2013, 31 (4): 419-441

should focus on the six existing CFI supported by HARVEST and on at least eight CF with at least two per province.

HARVEST must prioritize remaining funding related to the policy agenda activities to ensure that the 7 items are finalized, the 5 remaining actions that have not started receive sufficient resources and support to produce results, and the 6 items that are proposed for elimination are reconsidered relative to priorities for results achievement in the time remaining during program implementation. Progress by other donors and the RGC on improving the security of land and resource tenure must be tracked closely to understand effects and impacts on HARVEST results achievement and the sustainability of those results.

HARVEST should be integrated more effectively within the overall Mission program portfolio implementation and management. Where field operations overlap or are contiguous, HARVEST should maximize collaboration with health, governance, and forest/biodiversity activities. HARVEST's policy agenda actions should be linked within an overall USAID policy agenda across the Mission's program.

### **3.2 HARVEST Preliminary Impacts on Targeted Beneficiaries with special consideration of minority groups (poor, illiterate and elderly)**

#### **Findings on increased incomes and economic benefits**

##### *Value Chain Development*

The commercial horticulture component has led to substantial increased incomes at the household level – up to ten times the income achieved from vegetable production prior to the program. There have also been high levels of reinvestment, with clients using their own resources to purchase the inputs required, in some cases expanding their vegetable farms on their own land, or renting or purchasing additional land. There is some evidence of replication, however, in many cases those non-clients emphasize the use of cost-neutral practices – raised beds and straw, corn stalk, or palm leaf mulch rather than plastic mulch.

Home garden impacts have varied with size, with larger gardens achieving similar impacts to commercial horticulture, i.e. mainly increased revenue not necessarily improved nutrition. Smaller gardens generate less revenue and may have a higher proportion of home consumption. However, as home gardens have much lower volumes than the commercial farms those households are also less able to take advantage of larger, more lucrative markets. It is uncertain to what extent home gardens directly impact improved nutrition as the MTPE repeatedly heard that much of the harvest is sold. Conversely many green leafy vegetables are collected wild or traditionally grown on the edges of existing backyards so that the direct nutritional impacts of introducing home gardens may be less than expected.

The aquaculture component has had inconsistent impact as results are variable and sensitive to management. When managed well, revenues are high, reinvestment is possible and food security is enhanced. On average revenue increases to date exceed targets and levels of reinvestment are high. However, smaller ponds have a reduced impact and may not be sustainable. There are several major constraints to the success of the aquaculture component including the difficulty of sourcing high quality fish fingerlings; the volatility in the market price; the devastating effects of flooding in program areas (many of the fish ponds visited by the MTPE were destroyed by flooding, which allows fish to escape from the fish ponds into the rice ecosystem); and the fact that over 90% of clients had no aquaculture experience previously.

Improved rice technologies introduced by the program have increased yields by a more modest 25%, and the most-favored technologies are cost neutral: improved quality seed, reduced seeding rate (for both transplanting and drum seeder), and split fertilizer application. Farmers seem to readily transfer these practices to other farmers while those practices that require increased intensity of management and/or investment are most commonly embraced only by farmers with finance and labor capacity.

### *Off-farm income generation*

With the obvious exception of those input suppliers, whose businesses had been selected to supply inputs to HARVEST clients, there appeared to be only limited impact upon incomes from HARVEST interventions outside of the value chain activities. Where producer groups had been established prices had been increased, as a result of the perceived quality of production from a group that was operating under the auspices of the HARVEST program. The few marketing linkages developed to date for rice have not been so strong that significant differences in income could be reported. Other off-farm activities did not generally yield attractive incomes (although some, such as fish processing did appear to be sustainable).

### *Management of forests, fisheries and watersheds*

Members of CF communities continue to collect NTFP for their own use or for sale as they did before the program started. There is no reason to believe revenues have impacted substantially.

Protection of CF seems to have increased substantially. Revenues from the illegal harvest of wood products in the CF have probably declined and have not been replaced by legal, sustainable harvest systems.

The 45 ha of reforestation visited by the MTPE at Reussey Doach CF in Kampong Thom province was done on a severely degraded forest prone to frequent dry season fires without first developing fire prevention/fire management/fire suppression systems. None of the CF and CFi have been developed as self-financing community-based enterprises so that the impacts of this aspect of development are negligible.

### **Findings on strengthening natural resources management and resilience to climate change**

HARVEST support for CF has contributed to enhanced protection of the forests but has not resulted in sustainable management systems. The program has not invested in the development of community-based monitoring of threats and status of either forests or fisheries, so the effectiveness of enhanced protection is not being documented.

The program supports activities leading to the legal registration of CF, but has not invested in forest management planning or testing of operational management systems. The support for CFi has contributed to the implementation of fisheries management plans prepared by other partners, but HARVEST has not conducted analysis of the strengths and weaknesses of these plans nor have they identified and analyzed the costs and benefits of other management options.

The program is supplying grants for enhanced protection of the CCPF and the bird sanctuary at Prek Toal. The program has done a REDD+ feasibility study for the CCPF. The study, which has been well prepared, lays out different options that FA could pursue if it decides to pursue the sale of carbon credits on the voluntary market.

As an alternative to sustainable forest management, the program has invested significant resources in the growing of trees (mostly fruit trees) and bamboo on farmers

fields for the sustainable production of wood and NTFP that would otherwise be harvested destructively from the forest. However, none of this provides alternatives to the major threats to the forests -- clearing for agriculture (both smallholder and for agribusiness) and severe overcutting for saw-timber. Bamboo is an alternative to the harvest of wild bamboo in the forest, but overcutting of bamboo in the forest is not a significant threat. Fruit trees produce fruit and very modest amounts of fuel-wood and other minor wood products, but over-cutting for fuel-wood is not a major threat to forests.

The program has invested in the reforestation of poorly stocked grassy clearings in community forests. While the program has had considerable difficulty finding such clearings to reforest, one should question whether it is desirable to reforest every clearing. Forest clearings can have important benefits for wildlife, habitat diversity and biodiversity. The conversion of grassy clearings to plantations is of questionable benefit to improved NRM.

The program has initiated a process of watershed management planning, but it is too early for this initiative to have any impact on the pilot watersheds or revenues from them.

HARVEST technologies have increased smallholder producers' resilience to climate change in a number of ways. Most obviously, those engaged in commercial horticulture have benefitted from drip irrigation, plastic mulch, raised beds all of which have reduced susceptibility to extreme weather conditions. Rice producers have adopted new varieties that of a shorter growth cycle that are both drought and submergence resistant as well as (in a limited number of cases) improved access to Irrigation. Fish producers have been introduced to the use of mesh hoppers and pond fencing to prevent the escape of the crop fish (i.e. those targeted for production) and the introduction of predatory species during flooding. All of these technologies result in reduced losses during periods of excess or inadequate rainfall and thereby confer resilience upon producers.

In this regard, HARVEST technologies have made a substantial impact amongst those households with the capacity to adopt the technologies. Nevertheless, the vulnerability to climate change of poorer households with limited adoption capacity has remained largely unaffected.

#### **Findings on improving the wellbeing, including food security of beneficiaries**

Many of the HARVEST interventions resulted in increased incomes. Cash is not of itself equivalent to wellbeing, but can be used to generate it. The wellbeing of beneficiaries can be assessed in terms of the following benefits that may result from increased income:

1. Food security
2. Health
3. Housing

4. Education
5. Social capital
6. Aspirational capacity

The MTPE did not investigate all of these aspects in detail, but made the following observations:

#### *Food security*

The ID Poor classification data for the HARVEST program areas suggests that on average, 16% of households are ID Poor 1, while 17% are ID Poor 2. The remaining 67% are ‘non-poor’. This classification now covers over 98% of all households in the program areas. ID Poor 1 households spend less than the amount required to obtain 2,200 calories from food per capita per day of food. ID Poor 2 households have expenditure patterns that might be enough to obtain 2,200 calories per capita per day together with other basic survival needs (clothing and medicine). Non-poor households exhibit expenditure that is at least adequate to purchase the minimum food requirement together with the basic means of survival. These are empirically derived data<sup>12</sup> that are reviewed regularly.

Households classified as ID Poor1 are undoubtedly food insecure. Equally, there is no guarantee that those households classified as ID Poor2 will be food secure. Food prices and household circumstances will fluctuate over time, and households with such limited resources may frequently be subject to transient food insecurity. Even households in the non-poor category may be occasionally food insecure if they are obliged or choose to spend a significant part of their income on unforeseen non-food items, (especially weddings, funerals or medical bills) or if their income streams are irregular.

Nevertheless, for 67% of the population in HARVEST target areas, expenditure levels are adequate to achieve sustainable food security, and chronic or temporary malnutrition is a result of either poor utilisation of food or of unreliable income/expenditure patterns.

On this basis, if HARVEST interventions are targeted to include only 20% of their beneficiaries as ID Poor, then 80% of beneficiaries can be expected to demonstrate expenditure sufficient to allow for the consumption of at least 2,200 calories per capita per day on a general basis and only under exceptional circumstances will these beneficiaries be food insecure as a result of a lack of available or accessible food. For these households, interventions that increase the availability and/or accessibility of food will achieve little in terms of reducing food insecurity, since they are already generally food secure. For the majority of HARVEST beneficiaries, the interventions based upon strengthened value chains or diversified incomes should not be expected to result in discernible improvements in nutrition.

Conversely, for many IDPoor1 households, value chain based interventions are not appropriate to their circumstances or capacity, and these households demonstrate a

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<sup>12</sup>Royal Government of Cambodia, Ministry of Planning: Poverty in Cambodia – A new Approach, redefining the poverty line: April 2013

limited ability to increase the availability or accessibility of food as a result of the HARVEST program. It is amongst the IDPoor2 households that a capacity to respond to HARVEST interventions is combined with inadequate food security and where the HARVEST interventions in all three value chains can be expected to have an impact on food security through the improved availability and accessibility of food. This segment of the population currently comprises approximately 10% of HARVEST beneficiaries.

If at least half of the IDPoor1 and all the IDPoor2 households could respond to HARVEST interventions and a further 25% of the non poor households are intermittently food insecure, then the impact of HARVEST's value chain interventions would be expanded to improve food security for up to 35% of the target beneficiaries but there would be little impact on the food security of the remaining 65%.

Nevertheless, national statistics show a poor correlation between nutritional indicators and poverty levels<sup>13</sup> suggesting that many households with adequate access to food are nevertheless effectively food insecure as a result of poor utilization, due either to poor nutritional practices, or poor sanitation. In the target areas, HARVEST baseline data indicates that stunting of 5-year old children, (a sensitive indicator of chronic food insecurity), is substantially higher than poverty levels, (45% stunting as opposed to less than 20% poverty head count). This suggests that HARVEST interventions to improve nutrition and hygiene can have an impact across a wider cross section of the population than those interventions that increase the availability and accessibility of food.

Regrettably, there is no regular monitoring of either food consumption<sup>14</sup> or levels of malnutrition to confirm the value of the nutritional aspects of HARVEST, or to place the other program elements into proper perspective. Monitoring of growth rates and two year-old stunting levels on a regular basis would allow a better appreciation of the utilization component of the program just as regular monitoring of household consumption and expenditure would indicate the impacts of the other HARVEST components on food security.

Field assessments by the MTPE found that increased incomes were sometimes used to purchase more food, but that this was usually in the form of animal protein (pork) and only occasionally more healthy foods (fish and vegetables). Focus group discussions confirmed the prevalence of poor dietary practice amongst the better off households.

### *Health*

Health of beneficiaries is not measured but was anecdotally improved as a result of the nutrition and WASH messages provided to clients. Dietary diversity indicators have not been recorded for long enough to confirm that these resulted in improved diets although they would ultimately be expected to contribute towards reduced stunting and associated improved mental capacity.

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<sup>13</sup> Ibid

<sup>14</sup> Dietary diversity is measured, but not overall consumption.

### *Housing*

There was no obvious improvement in clients' housing. This may be a result of limited income from HARVEST activities in some cases, but is more probably related to the existence of higher priorities for investment in the light of adequate housing capacity.

### *Education*

Education was listed by focus group members as a key expense to which additional incomes derived from HARVEST activities were often applied.

### *Social Capital*

Social capital can be developed through participation in producer groups and other group activities. It was observed that such groups were not common, unless they had been externally imposed. Even where HARVEST had set up producer groups or committees, the social cohesion appeared limited. Social capital has not yet been strongly impacted by HARVEST.

### *Aspirational Capacity*

Aspirational capacity is frequently emphasized as a key aspect of development that must be fostered if beneficiaries are to change their behavior. HARVEST does affect this capacity directly through the significant improvements in production and income that its interventions provide for lead clients. Straight lines of healthy green vegetables and the resultant increases in income are a vivid incentive to adopt a new approach to horticulture based on an aspiration to do as well as one's neighbor. The results of the intensive and disciplined approach to production in both horticulture and to a lesser extent aquaculture, of themselves raise the aspirations of producers to achieve beyond previous expectations. The initial provision of materials including drip systems, plastic mulch and trellising is essential to the demonstration of a new paradigm that many might initially consider to be either unnecessary or unattainable, but which is rapidly seen to be both successful and sustainable thus setting new standards for production and income from that moment on.

### **Findings on specific types of additional technology that could be potentially integrated into HARVEST**

While the HARVEST program provides a number of innovative technologies to producers, the MTPE found that the program could be strengthened through the inclusion of the following:

#### *Agriculture components:*

The program could research and trial – in conjunction with farmers - additional rotary weeder<sup>15</sup> designs available in Asia to address the weaknesses identified in the currently available design (too wide for narrow-planted rice). Local blacksmiths could be contracted to produce prototypes.

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<sup>15</sup> A rotary weeder is the conventional term for a hand held device that rotates through the soil as it is pushed along, thus cutting and uprooting weeds.

The program could research and trial additional drum seeder designs available in Asia that can be used on a wider variety of soil types and preferably more solidly built. Again, local manufacturers could be contracted to produce prototypes.

Several household garden clients reported that carrying water from a well, pond or other source and then lifting up over two meters in order to fill the cisterns provided by the program is an onerous activity. The program could trial low cost treadle pumps or rope pumps that can lift the water directly into the cisterns.

Although HARVEST has established 11 producer groups to strengthen crop marketing, group members appeared unable to use the mobile phone based market information system that has been set up by the Agricultural Market Information System<sup>16</sup>. Education in the use of the system would help producer groups take advantage of price opportunities and would strengthen negotiation capacities.

The introduction of self-help (savings) groups has proven to be an effective technique for the empowerment of the poorest, especially women. Such groups not only provide the basis for either insurance or investment, but can also develop substantial social capital and might be used as a repository for nutritional information. The development of self-help groups requires little initial in the way of initial resources and as a result, groups can be open to all community members. Nutritional messages are more likely to be discussed within the context of groups and it is possible that groups might provide support to maintain nutritional standards amongst members.

In addition to the mobile kitchen and conventional education techniques, some NGOs have taken advantage of local dramatic skills to provide messages through comedy (Comedy for Health), which has proved extremely popular. Others have used hand-held video equipment to record village members undertaking specific nutrition or health practices, and the videos can then be replayed later in the day in the same village, attracting much greater participation than those involving TA staff or actors from other areas. Such techniques are particularly useful for reaching out to the illiterate as well as school children.

Warehouse receipts were considered by HARVEST as an option to increase the availability of finance to producers and traders, but were abandoned due to the lack of supporting legislation. It may nevertheless be possible to establish a private sector operated warehouse receipt system based upon limited but trusted and well managed warehousing capacity. The warehouse receipt system currently being developed with USAID support by the Ghana Grains Council operates on such a basis, requiring no special legislation, but relying instead upon certification by the National Bureau of Standards to ensure that all grain submitted and stored by farmers and/or traders is of adequate quality. The system issues receipts for stored grain that may be traded and redeemed or used as collateral with those banks willing to trust the warehouse operator. Such a system could be developed in Cambodia to allow farmers or millers to

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<sup>16</sup> <http://www.agriculturalmarketinformation.org.kh>

increase their liquidity based upon their stored rice which, in a well managed store, would suffer less post-harvest loss than grain stored using traditional methods.

### Conclusions

The agriculture value chain support activities are leading to increased economic benefits. These are most pronounced in the case of commercial horticulture where the increases in income are sufficient to promote both reinvestment and replication. Incomes are also increased in rice and fish production, but reinvestment in rice technologies is more restricted to cost-neutral practices and levels of replication are not yet known (since new technologies have only been introduced for one season).

Nevertheless, the poorest members of program communities do not constitute the majority of beneficiaries, for the poorest, the impacts of these value chain interventions are comparatively reduced and responses from beneficiaries suggest that much lower levels of reinvestment can be expected from the poorer clients.

Home gardens are viewed primarily as sources of cash rather than additional nutrition. Their direct impact upon improved nutritional program appears to be less than might be expected.

Few of the off-farm income generating activities were making a significant impact on incomes and beneficiaries often reported that their time was better spent in other activities.

HARVEST technologies have increased smallholder producers' resilience to climate change in a horticulture, rice production and aquaculture. Technologies generally result in reduced losses during periods of excess or inadequate rainfall and thereby confer resilience upon producers.

HARVEST has not made direct investments in the development of sustainable NRM, and HARVEST support to CF and CFi is not leading to the development of market oriented, self-financing community enterprises for sustainable NRM. Almost none of the HARVEST support to forest, fisheries and watershed management are leading to enhanced revenue generation from sustainable NRM. The only example the MTPE could find was the women's group at Anlong Raing that is making and marketing prahoc from fish caught by their members. The impact of HARVEST upon sustainable NRM has therefore been minimal.

### Recommendations

In the remaining two years, HARVEST should focus on finding ways to include more poor clients through the following interventions:

- Alter the criteria for inclusion in program activities to include landless or near landless;
- Supporting more off-farm or non-farm income generating activities, and vocational skills training. Successful non-farm enterprises and appropriate

vocational skills training may have the added advantage of involving and benefiting youth;

In the remaining two years, HARVEST should focus their support to CF and CFi on the removal of major constraints to sustainable management of community forest and community fisheries through the following interventions:

- Development of sustainable financing systems for CF and CFi, and;
- The generation of significant financial benefits to communities and community members, and;
- The development of market-oriented sustainable timber harvest systems for CF.

Additional technologies that might be considered would include locally produced and strengthened versions of the drum seeder and rotary weeders, the introduction of self-help groups, and the use of low-cost pumps for home gardens. Producer groups would benefit from training in the use of the mobile phone-based MIS.

Nutritional training methods could be diversified using existing skills in drama that are already employed by other NGOs and the introduction of self-help groups might well serve to enhance the dissemination of messages through the community as well as providing support to mother with young children who face difficulties in adopting good dietary and child care practices.

### **3.3 HARVEST Achievements and the USAID Gender Equality and Female Empowerment Policy<sup>17</sup> (GEFE) and Youth in Development Policy<sup>18</sup> (YID)**

#### **HARVEST and GEFE**

The empowerment of Cambodian women as assessed by the Women's Empowerment in Agriculture Index (WEAI) is high and women participate equally in decision making, (WEAI 0.978, cf. Bangladesh: 0.749). The MTPE observed that women were vocal in discussion groups and were seen to be active as farm owners and managers, to participate strongly in home garden activities and NTFP collection and to be well represented in processing and marketing activities. While they do not participate as much as men in aquaculture and fishing or in some aspects of forest management, they are in the majority as far as participation in nutrition interventions is concerned.

HARVEST includes a unit specifically dedicated to social inclusion and that unit's impact is reflected in the program activities. HARVEST beneficiary selection procedures do not preclude women and HARVEST is achieving high levels of gender balance in its major activities. Overall female participation in the client base across all components is approximately 50% which surpasses its ambitious 45% target at this point in implementation. In the horticulture development activities, women represent 70% of the clientele. In the rice production activities, the female client target is 40% and, while the current 30% is not adequate, it indicates significant progress. The NTFP female client participation is 80% to date. HARVEST has been effective in increasing community tenure rights to prevent forests from being converted to ELC or smallholder agriculture which would destroy NTFP. The rattan processor groups supported by the program are almost exclusively women. Bamboo groups are mixed. Women are sitting on CFMC & CFiMC. The MTPE observed that women are usually a minority, but they are present. CF and CFi are, however, marginal, voluntary, non-commercial activities. The role and women will/would become much more important in the future if and when they become self-financing commercial enterprises.

The next round of recruitment features an increased effort to maintain and expand female participation, including increasingly as lead farmer clients who could transition to community based extension workers.

#### **HARVEST and YID**

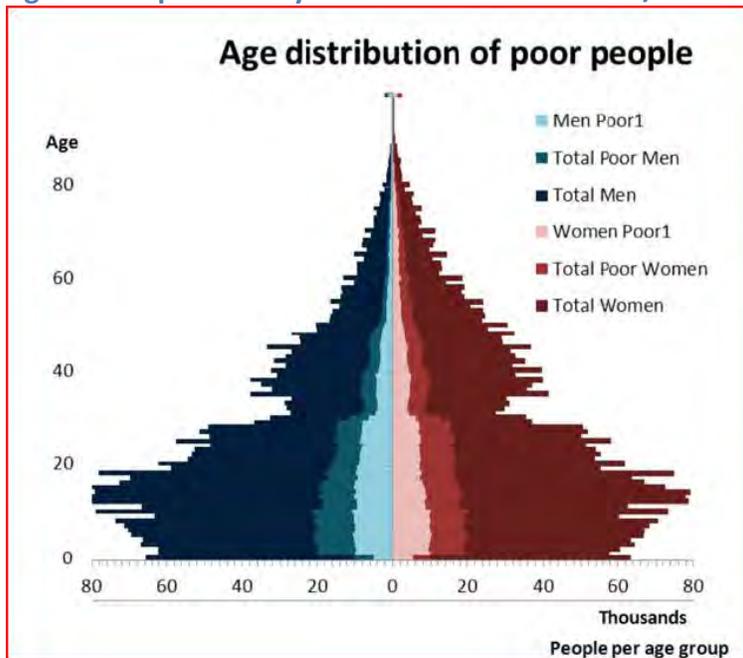
Cambodia's demographics are dramatically skewed towards a high proportion of youth (Figure 1). The bias towards youth is even more marked amongst the poor, so that young poor people represent a substantial proportion of the ID poor and an important focus of any program that attempts to improve household food security. USAID's Youth in Development policy is thus especially pertinent in the Cambodian context.

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<sup>17</sup>[http://www.rightsandresources.org/documents/files/doc\\_4812.pdf](http://www.rightsandresources.org/documents/files/doc_4812.pdf)

<sup>18</sup>[http://www.usaid.gov/sites/default/files/documents/1870/Youth\\_in\\_Development\\_Policy.pdf](http://www.usaid.gov/sites/default/files/documents/1870/Youth_in_Development_Policy.pdf)

Figure 1: Population Pyramid for Cambodia 2009/10



Source: ILO Data<sup>19</sup>

The YID strategy calls for USAID to address both the demand and the supply side of job creation, promote self-employment and entrepreneurship, engage youth productively in agriculture and value chains, and expand access to services for economic success and to target youth with vocational education, agricultural extension, training, resources and platforms for participation. HARVEST is working to follow that guidance in much of its activities and in the selection of its clientele, both direct and indirect.

HARVEST has a target of 30% youth participation and has achieved an insufficient overall level of just over 20%. The implementing partner reported that the difficulty is principally due to the out-migration of large portions of the HARVEST communities. However, it is not clear that client recruitment during the first half of program implementation sufficiently emphasized youth inclusion. It was reported that recruitment of the next round of clients will work to elicit greater youth participation, but it is debatable whether or not HARVEST's agricultural production-focused interventions have much relevance to poor youth. The MTPE repeatedly heard that interventions that required increased labor or management time in the fields or gardens, and which might therefore conflict with the demands of employment were considered to be of little benefit to young poor people.

<sup>19</sup> International Labor Office, Social Security Department: Cambodia: Social Protection Expenditure and Performance Review. EU/ILO partnership programme: February 2012

## Capacity Development

### *Women's Capacity Development*

The level of female inclusion in HARVEST activities generally exceeds 50%, and the MTPE observed an apparent commensurate development in women's capacity.

In terms of the overarching food security goal of the HARVEST program, women's particular capacity to affect and improve the utilization of food is pivotal to success. This is clearly being addressed through the home garden, mobile kitchen and associated training activities. Nevertheless, given the importance of capacity development in this area, greater emphasis needs to be placed upon broadening and deepening capacity development in this area.

While they are active at every level, women play a fundamental role in food security at the level of utilization. The development of the capacity of women to fulfill this role and act as drivers of change in terms of household production and expenditure, lies at the heart of improved household food security. HARVEST has achieved some success in developing especially women's capacity to improve food utilization. This needs to be developed further throughout the remainder of the program.

### *Youth Capacity Development*

The development of capacity amongst the youth has been as problematic as that of the poor. It was repeatedly emphasized to the MTPE that both the youth and the poor required different packages of assistance to those provided to better off producers if sustainable capacity development were to be achieved. The HARVEST program does not yet do this.

## Conclusions

The MTPE finds that HARVEST is achieving well relative to GEFE's main elements of gender equality, female empowerment, and gender integration. The YID objectives are also incorporated comprehensively in HARVEST planning, but implementation, particularly beneficiary client recruitment and participation, has not successfully achieved targeted levels of youth involvement.

On the NRM component, the roles of women and youth will become more important when CF and CFi are developed as market-oriented, community enterprises that generate benefits for communities and community members including women and youth. The results of the WEAI notwithstanding, the MTPE observed that women's roles in decision making to date have been relatively minor for CF and CFi.

## Recommendations

HARVEST should increase its inclusion of youth in its recruitment of participating clients and other forms of beneficiary identification. This may require the development of interventions outside of the main program focus on agricultural production and towards the provision of services, (especially in marketing), trade and transport, as well as employment in the processing subsector. The facilitation of employment through

workforce development, apprenticeships and the development of SMS-based employment information networks that can reduce search times may also be beneficial.

As HARVEST develops market-oriented revenue generating CF and CFi systems, HARVEST should pay special attention to capacity-building needs for women and youth, especially in decision-making roles within these systems.

Broader and deeper capacity development of women is required in the area of food utilization by:

- a. Reviewing existing messages for effectiveness and strengthening where necessary.
  - b. Crafting different messages that are appropriate to both literate and illiterate and young and elderly women.
- b) Embedding the training within a social framework (such as self-help/savings groups) that can empower especially women to support each other.

### 3.4 HARVEST Cambodian Partner Capacity Building Achievements

#### RGC: national and sub-national Capacity Development

At a national level HARVEST may have built capacity through the provision of assistance in the preparation of various pieces of agronomic and environmental legislation, but the implied capacity development remains abstract unless it is accompanied by capacity to implement the legislation and policies that have been developed. Other HARVEST inputs at a national level are similarly constrained. The delivery of training courses, feasibility studies and environmental inventories are more realistically defined as service provision than as capacity development.

At a sub-national level, HARVEST has invited District Agricultural Officers to training sessions and field days, but there has been no formal development of MAFF capacity. HARVEST has no programs to develop capacity at the District or Provincial level of MAFF. This was viewed with concern by the RGC representatives visited by the MTPE and has a number of implications. From a political perspective it has meant that support for HARVEST from the PDA level and above has been limited and the appreciation of the HARVEST program within the RGC has been less than it might have otherwise been.

From a purely pragmatic perspective, the implications may be less dramatic. It is quite clear that while MAFF would like to develop the capacity to provide the technical assistance currently provided by HARVEST, it lacks the financial, human and physical resources to do so. PDA staff cannot achieve the level of TA coverage that the program has been able to provide so far, and MAFF resources are inadequate for that institution to become the exclusive residence of HARVEST technical skills once the program has ended. Nevertheless MAFF is mandated to provide TA to farmers and HARVEST impacts will be increased if the program can provide some measure of support to MAFF within an agreed framework. The nature of such support might include internships, structured participation in pre-existing training courses or even specifically designed TOT courses, but it is considered important that a framework of cooperation should be established to allow training in whatever form to proceed. The framework within which such training might take place is almost as important as the training itself.

HARVEST has placed greater emphasis on the development of capacity at the level of Commune Councils for whom some structured training on climate change mitigation together with sensitization on nutrition has been provided. There are plans to develop this avenue further through support to village extension volunteers but these have not yet materialized.

Under the “Local Participant Training Program”, HARVEST has developed the capacity of some RGC and private sector stakeholders through scholarships and internship programs, leading to the placement of 173 participants in local, regional and international institutions, of these 48 have been for long-term higher level training courses, while 133 have been for short term training. While both forms of training will undoubtedly result in capacity development, the way in which that capacity will benefit poor smallholders is unclear. Long term capacity development in particular is regularly

used as a means to move beyond government service and into an NGO or the commercial sector. Training in health and nutrition is the most likely to be directly utilized to improve food security amongst the most vulnerable.

Overall, HARVEST development of RGC capacity has been largely restricted to service provision and individual capacity development. It is doubtful that this component of the program will have much long-term impact on food insecure households, especially given the high rate of turnover of RGC staff.

### **Private Sector (Farms, Other Enterprises)**

#### ***Farms***

It is amongst the private sector that HARVEST has achieved the greatest capacity development. At the farm level, all producers have been provided with basic financial literacy training, (although not all have internalized the information). Beyond this, capacity development has varied according to the value chain. The aquaculture intervention has emphasized the producer's development of a full understanding of the principles of fish rearing, so that individual farmers can provide their neighbors with the knowledge required for effective replication. Rice producers have similarly been provided with a series of practices that they can understand and replicate without further technical assistance. By contrast horticultural training has provided the farmer with procedures to follow to grow a shortlist of crops, but there is a continued reliance upon extension advice in the event of pest and disease outbreaks and only limited awareness of what might be required to grow a new crop effectively.

In terms of physical capacity, a majority of farmers engaged in commercial horticulture have acquired the capacity to irrigate their land (using drip systems) on a sustainable basis, thereby ensuring the continuation of increased revenues.

In relatively few cases had farmers been helped to strengthen the marketing of their produce; 185 growers had been organized into 11 producer groups. In addition, linkages between rice producers and neighboring mills were being fostered. HARVEST has introduced 1,300 growers to buyers at field days, but there was little indication that such introductions had resulted in "linkages made" as the title of the deliverable in the performance work plan would suggest.

#### ***Community Resource Management Groups***

There have been no assessments of the policy constraints to CFi and CF. There have been no formal assessments of the Cambodia specific approaches to CF and CFi, and no capacity needs assessments of CF and CFi other than informal analyses done by HARVEST staff. Based upon these analyses, community resource management groups have been assisted with the implementation of fishery management plans and conservation field training sessions, while forestry communities have received community based management training. Whether the training has resulted in improved management capacity is a moot point, since in neither case are management groups able to use the principles of NRM for revenue generation or livelihood enhancement.

Instead, community forestry groups have been trained in tree nursery management, bamboo and rattan cultivation and in agroforestry. These are activities which, while increasing incomes and diversifying incomes streams are of little or no direct relevance to the management of the natural forests that is needed. The capacity development that has occurred is of little direct relevance to the intermediate result (of enhanced NRM) that is sought.

### *Producer Groups*

Where producer groups had been established by HARVEST, they had been introduced to a small number of buyers but had received little marketing support beyond that initial introduction.

Producer group members considered the group to be useful because it made their marketing easier (since buyers came to each group), but it was evident that they considered the group itself to provide few advantages in terms of negotiating capacity or increased price through reduced buyer aggregation costs. Instead, they viewed the group as a means to increase prices based upon perceived quality, due to the fact that the group was operating under the auspices of the HARVEST program. They emphasized that buyers would pay a higher price for vegetables produced out of donor programs since these would be considered to be more hygienically produced and less likely to have been subject to the over-application of pesticides than the vegetables of other producers. Similar benefits were reported by the women's fish processing groups, i.e. an increased price for prahoc, based upon perceived quality derived from program involvement.

Although there was little coherence amongst group members they did work to reinforce this benefit by actively promoting quality standards throughout the group. Nevertheless, following the withdrawal of HARVEST, this price benefit might be lost unless some type of informal branding can be established before program closure.

### *Rice Mills*

HARVEST has been working to develop the capacity of small rice mills to purchase from farmers. In particular it has supported business capacity development and assisted some mills to access finance to purchase rice, and in some cases to provide inputs to growers. This aspect of the program has not yet been well developed, but represents a potential avenue for the development of sustainable technical assistance within the context of a contract farming arrangement.

### *Input Suppliers*

Amongst input suppliers, capacity development has been three-fold. In addition to increased business capacity (in terms of accounting and business management), input suppliers have been trained in the technical aspects of the products that they carry and the basic agronomic principles underlying their use. They have been supplied with technical pamphlets for distribution to buyers. In some cases they have been assisted to set up demonstration plots. These supports have enabled them to provide advice to

farmers, reducing costs and increasing the effectiveness of applications, while developing a relationship with clients. Input suppliers have also been advised of the most effective pesticides to stock and provided with the contact details of trustworthy wholesalers from whom to source supplies.

These interventions have undoubtedly increased the business, technical and stocking capacity of specific input suppliers and have thereby guaranteed the sustainability of HARVEST interventions at the producer level. Interventions have been program-focused in that they have been selectively applied. They have not increased the capacity of input suppliers overall, and have not addressed the supply of inputs outside of those used by HARVEST beneficiaries. It was observed that three of the six input suppliers visited by the MTPE carried supplies of pesticides and seeds that had passed their expiry dates. This suggests that focused support to input suppliers to meet the needs of HARVEST beneficiaries had allowed poor business practices in other areas to go unchecked, some of which might well impact producers in the future.

### *Financial Institutions*

HARVEST has supported MFI's in identifying suitable clients and in understanding the costs and risks associated with vegetable and rice production. It has also acted as a negotiator, generally on behalf of HARVEST clients, of finance costs. In doing so it has achieved some capacity development amongst financial institutions, but this appears to be restricted largely to the improved assessment of production costs.

### *Civil Society*

Capacity development of civil society has occurred at three levels. Most obviously, HARVEST has developed the capacity of specific individuals within the various NGOs subcontracted by the program to deliver TA for NRM and agricultural production and marketing to clients. Secondly, the program has helped selected NGOs to develop financial accounting and procurements systems that would allow them to respond to future USAID direct contracting initiatives and thirdly, it has assisted in the development of M&E capacity. Such capacity development has been strongly program-focused and restricted only to those NGOs that have participated in program implementation. Training of other NGOs to deliver parallel TA messages (i.e. TOT programs) has not occurred. HARVEST provided little training to the two NGOs involved in the delivery of nutrition messages both of whom indicated that HARVEST support mainly enabled them to achieve greater coverage of beneficiaries using the nutrition material that they already possessed.

Nevertheless, HARVEST has undoubtedly succeeded in empowering at least 150 field staff through the development of technical capacity to deliver TA. For as long as they remain employed by the subcontracted NGO that capacity is available to program clients.

### **Academia**

Capacity development within academia has been restricted to the development and delivery of two courses in GCC/REDD and support to the University of Battambang in the development of a curriculum for aquaculture. While the first intervention is more in the nature of service provision, the second has the potential for ongoing development. The University of Battambang has expressed an interest in ongoing collaboration with the HARVEST program in both aquaculture and horticulture and has made resources available to support demonstrations and research in both areas. Collaboration in aquaculture is ongoing and may result in the development of valuable teaching and research capacity. Collaboration in horticulture has not as yet occurred.

### **Minority groups (Poor, Illiterate, and Elderly)**

The development of capacity amongst the poor, illiterate and elderly has not occurred to the extent required of a program intended to support vulnerable households. Moving along a spectrum of increasing poverty, beneficiaries become less and less able to participate in HARVEST activities. The poorest lack the land, finance, and time to participate in production focused activities. Capacity development of the poorest should instead begin with activities that require little investment (such as savings, development of financial literacy and training in nutrition/WASH). There has been some development of capacity amongst the poor in terms of improved nutritional/WASH knowledge, but the MTPE noted that this has not been well absorbed by the illiterate and elderly.

It was repeatedly emphasized to the MTPE that the poor required different packages of assistance to those provided to better off producers if sustainable capacity development were to be achieved. The HARVEST program does not yet do this.

### **Conclusions**

With the exception of training courses in REDD+ and local participant training activities (internships and scholarships), HARVEST has undertaken no formal capacity development of RGC staff, although informally staff have been invited to training sessions and field days.

The most substantive capacity development has taken place at the farmer level where producers have learned new techniques in commercial horticulture, rice and fish production. The capacity of farmers has been considerably enhanced, especially those receiving inputs for commercial horticulture, which have allowed them to make a sustainable paradigm shift in production technology. Some fish producers have also benefitted from a similarly innovative approach.

Nevertheless, commercial horticultural producers remain dependent upon extension for advice. Extension capacity has been developed within local NGO representatives subcontracted to the HARVEST program. This is of concern since there is no guarantee that such TA capacity will continue to be available to growers post HARVEST.

Selected input suppliers have enjoyed extensive capacity development although this has been focused upon the provision of services to HARVEST clients and has thus been specific rather than general in nature.

Capacity building for CF and CFi has not focused on market-oriented revenue generating self-financing management needs. Capacity development for minority groups especially the poor, illiterate and elderly has been minimal..

### Recommendations

HARVEST should conduct formal capacity building needs assessments and develop capacities as needed for the following:

- CF and CFi level capacities for
  - Bookkeeping, business planning and periodic adaptive management reviews for community-based NRM enterprises
  - Good governance, especially in transparency and accountability in the management and equitable distribution of revenues;
  - Technical capacities for tree selection for silvicultural thinning, access road layout and maintenance, fire management, etc.
- NGO capacities to provide support to communities for the above;
- Define the appropriate roles for government at the commune and district, provincial and national levels and assess their capacity building needs.

The HARVEST program should examine alternative methodologies for reaching out to minority groups, including a more community focused approach that would not preclude their participation. Self help/savings groups are well recognized to achieve capacity development amongst the poorest.

The development of technical capacity should not be restricted to subcontracted field agents or selected supplies. The program should examine other options for the supply of TA in the future.

Research and extension capacity at the University of Battambang should be developed not only for aquaculture as at present, but also for horticulture.

### 3.5 HARVEST Components Sustainability Status and Adjustments to Enhance Sustainability

#### *Component 1. Enhanced Food Availability*

##### **Horticulture**

Increased yields and profits strongly promote sustainability; however, clients are highly dependent on technicians to provide solutions to challenges on-farm. Program staff need to consider what will happen when new challenges arise post-HARVEST. Technology transfer to NGOs (170 trained staff currently) is no guarantee of sustainability in agricultural development. This is because NGOs in Cambodia usually address a range of rural development issues – often dictated by donors – and there is no guarantee that the technicians from HARVEST will have an opportunity to apply the same skills acquired under the program in their new positions with other NGOs or programs. Some of the horticultural practices promoted by the program will transfer from one farmer to another, particularly those that cost-neutral or relatively inexpensive such as the use of raised beds and trellises. However, the program has not built the capacity of farmer-clients to become effective farmer-to-farmer extensionists beyond the life of the program thus reducing the potential for practices to spread.

Horticultural producers frequently expressed their concerns over the uncertainty of the market, and it was evident that there is considerable scope for further market development under HARVEST. The sustainability of newly adopted practices may be compromised if producers are unable to achieve good prices for their vegetables and for this reason, HARVEST should increase the emphasis on market development, including more intensive support for producer groups and the fostering of long-term relationships with wholesalers (eventually on a contractual basis) rather than the more arm's length introductions of buyers to growers that have been undertaken by the program so far.

##### **Rice**

Some cost-neutral practices may continue and even spread including improved quality/varieties of seed (assuming they are available post-HARVEST), lower seeding rate, and split fertilizer application. A reliable source for quality and affordable seeds will be critical for the continuation of these practices as with lower quality seeds the farmers have less confidence to practice the lower seeding rate and get a reduced response from the split fertilizer application. Since the rice component of HARVEST only just began about a year ago, they are only in the very preliminary stages of addressing the challenge of availability of high quality affordable seed.

As rice farmers in Cambodia have had more experience growing rice than horticulture clients have had growing vegetables, they are less dependent on technicians than in the horticulture component. However, the dependence is still present, and the program has not made any effort to build the capacity of rice clients to share knowledge with non-clients beyond the life of program.

The first year of the rice component was working very fast to achieve the target numbers, but training quality suffered. It was reported that lead clients only attended about 50 - 60% of training sessions provided by the program, while group clients only attended about 70% of the training sessions. Trainees reported that some courses were rushed (e.g. a common response was that the IPM training in particular would have been more useful if it had been longer).

#### **Seed Multiplication – A Public Private Partnership Opportunity**

The HARVEST program includes funding to promote public private alliance development, although it is not clear as to what is meant by the term and in the contract it is used interchangeably with the more conventional term “Public Private Partnership” (PPP). The latter is conventionally defined as an arrangement under which a government wishing to fulfill a real or perceived responsibility to its people engages the private sector to meet that responsibility (be it a service such as the provision of electricity or a tangible development such as a road). The private sector partner possesses the required financial and/or technical capacity to fulfill the obligations and the investment is repaid either by the people directly (e.g. through electricity fees or toll fees) or by the government over time out of national revenue.

The circumstances under which a PPP might be appropriate are limited and are normally defined by a government when it wishes to provide a specific service but lacks the resources to do so.

One set of circumstances where a PPP arrangement might well apply is in the multiplication and distribution of RGC-bred rice seed to meet the needs of smallholders across Cambodia. HARVEST would broker the PPP arrangement between the RGC breeder and the private sector investor (seed multiplier) and HARVEST funds could be used on a cost-share basis to incentivize the investment in land and agricultural machinery, necessary to produce and process seed and in the distribution chain necessary to make seed available to farmers.

#### **Aquaculture**

The fact that the program works with clients who have pre-existing ponds (for household and/or gardening uses) and does not encourage them to dig new ponds in order for them to participate in the program, reduces the investments required and potentially increases the likelihood of continued usage of those ponds. However, high quality fish fingerlings are generally currently not available in program areas so the sustainability of the practices post-HARVEST is in question<sup>20</sup>. There are additional constraints as well: the volatility of the prices for fish in the market (e.g. when fish are readily available from natural lake and river areas prices are low enough to – at times – yield a financial loss for fish pond owners); the occasional big flooding events that destroy ponds and/or allow release of fish into the rice ecosystem, or allow predator species to enter the fish ponds; and the fact that over 90% of aquaculture clients had never raised fish before. The program is building the capacity of fish hatcheries in program areas; however, they are at the very early stages and are only focusing one single species (tilapia).

The sustainability of field activities in the three HARVEST focus value chains has been repeatedly questioned. The MTPE was advised that few of the HARVEST improvements were judged by the poorer producers as providing returns sufficient to justify their

<sup>20</sup> Fingerlings sourced from remote areas often exhibit higher mortality rates due to the shock of transport and change of environment.

continuation once HARVEST program subsidized funding was discontinued. It is important to recognize that deterministic cost/benefit models produced by HARVEST during their initial analysis and selection of appropriate value chains do not reflect the complex stochastic processes by which smallholders determine their levels of investment. For growers, levels of risk and return are assessed including potential impacts of success and failure, and capacity to absorb the latter. If resilience is limited, then a considerable increase in return may be rejected if it is associated with even a small element of risk.

### ***COMPONENT 2 - Increased Food Access through Rural Income Diversification***

#### ***Non-farm Income:***

Apart from fish processing, (which is linked to the community fisheries component), the program has done little to develop sustainability within the off-farm income generating intervention. Notably there has been little vocational skills training that might sustainably diversify and increase incomes in programs areas and thus help to increase access to food post-HARVEST.

It will be important to consolidate the gains achieved by producer groups currently benefitting from increased prices through the intervention of HARVEST. The linkages that have been developed with buyers based upon product quality need to be strengthened and quality standards need to be maintained, even to the extent of informally branding production, so that price differentials will continue once it has been recognized that HARVEST support has been withdrawn.

#### ***Policy Development***

The sustainability of HARVEST's policy reform and enabling environment accomplishments is an open question. While STTA has been provided and important stakeholder consultations held on major draft documents, there appeared to be little sustained leadership from key RGC offices. Rather, the work and the conceptualization of the documents reportedly were led by consultants. Regardless of the quality and immediate impact of policy reform initiatives, without serious attention to and achievements in capacity building and securing buy-in from Cambodian counterparts who must be the real and ultimate owners of the process and its products. The work on the Law on Quality and Safety of Agricultural Products may well have been different and achieved such ownership, but the MTPE was not able to confirm this achievement.

### ***COMPONENT 3 - Natural Resource Management and Resilience to Climate Change Increased***

There are no sustainable self-financing systems for CF and CFi. It is doubtful that non-market oriented management can generate adequate incentives to sustain these initiatives and it is doubtful that systems based primarily on non-commercial, domestic use can defend themselves over time in the political and economic spheres.

Socio-economic sustainability depends on strong governance systems for community managers, especially for market-oriented management systems that generate

significant revenues for members, communities and resource management funds. Good governance support for accountability and transparency will become critical if and when CF and CFi begin to generate significant revenues. This challenge still lies in the future because none of the CF and CFi have reached this point.

As other donors have done before them, HARVEST is providing boats, motors, watch towers and other equipment to CFi managers who lack the means to cover basic operational costs, let alone replacement costs, for this equipment, even though the value of the annual production of the Tonle Sap fisheries is valued at roughly  $\frac{1}{4}$  to  $\frac{1}{2}$  billion US\$ per year. Patrolling and management are done with volunteer labor.

### **Are resources being managed sustainably?**

The potential for NTFP varies widely from one CF to the next, but all CF can produce a range of wood products. There are no tested, proven sustainable management systems that include silvicultural systems and fire management systems that ensure forest regeneration and the regeneration of the species harvested. Such systems need to be tested and developed on a trial basis so that they can inform forest management planning. This is not being done on any systematic basis. Most NTFP are harvested non-destructively and do not require management systems, but rattan is one the NTFP that is often harvested destructively. HARVEST supports rattan processor groups, leading to increased harvest of rattan from the natural forest. HARVEST has not first, or simultaneously, put in place sustainable rattan production systems in the CF for rattan or for other NTFP that are harvested unsustainably (such as tree ferns sold from the forest as ornamentals).

HARVEST has not invested in the development of sustainable management systems/plans for either CF or CFi and has not done an analysis of the sustainability of the management plans done by others.

The Tonle Sap fishery is undergoing enormous changes since the last 44% of the fishing lots (concessions) were ended in December 2012. The private concessions used to be fenced to prevent fish from moving across concession boundaries, now the fences are gone. It is claimed that private concession holders did a good job of protecting the flooded forest habitat. HARVEST has not done any analysis of what measures may be needed to ensure productivity and sustainability during this critical period. HARVEST has not put in place any monitoring systems of fish or fish habitats that would document the impact of the CFi management systems they are supporting. They have done a baseline of local fishermen's impressions of fishery stocks and plans to a second survey towards the end of the program.

Financing for both CCPF and the Prek Toal bird sanctuary are donor dependent and will require continued support by other donors beyond the end of the HARVEST program. HARVEST partner CI is working on a trust fund for CCPF (and has been since before the program started), but the trend over the last three decades is for trust funds to generate lower and lower rates of return on investments.

***COMPONENT 4 - Capacity of Public, Private and Civil Society to Address Food Security and Climate Change Increased***

The capacity to address food security resides with the NGOs and specifically in the approximately 170 field agents that have been trained to provide advice to horticultural producers, rice and fish farmers, as well as those NGOs and staff promoting nutritional messages. This is a concern since there is no guarantee that this capacity will be available to producers once the program has ended and the NGO is no longer employed. Interviews repeatedly indicated that in Cambodia, no single NGO has developed the capacity to be recognized for its expertise in specific aspects of agricultural production sufficient to guarantee reemployment by successive donor programs. (This contrasts with NGOs in the health sector, who can be expected to reuse knowledge gained in successive contracts).

Although two NGOs subcontracted to HARVEST have used their expertise beyond the program, this is only 10% of the number employed and it cannot be assumed that this will be repeated. The sustainability of technical capacity requires that it be transferred from NGOs to other stakeholders. In the case of aquaculture, the training program aims to provide producers themselves with the knowledge of both principles and practice necessary to achieve full sustainability. Additional expertise has also been provided to hatcheries, but it is not certain whether hatchery owners will pro-actively deploy that expertise amongst producers or restrict it for the promotion sales. In a similar manner, technical expertise and demonstration plots have been provided to input suppliers, but there is no evidence that this will be broadly available to all producers, or to those seeking to replicate the HARVEST systems. This is of particular concern in the case of commercial horticulture where – in contrast to rice and fish production – growers are not provided with a complete understanding of the production principles but instead remain dependent upon field agents for technical advice.

To achieve sustainability of the technical capacity that HARVEST has developed, it will be necessary for HARVEST to proactively seek out potential suppliers of technical assistance. While these may include input suppliers and the producers themselves, they may also include the offices of MAFF (although financial capacity is limited),

**Farm Business Advisors**

The program is piloting in Siem Reap province a collaboration with the IDE Farm Business Advisor approach applied to rice production. IDE established a franchisor, Lors Thmey (meaning “New Growth”), that supports local entrepreneurs to become Farm Business Advisors (FBAs). The FBAs support themselves by earning a commission when selling agricultural inputs and providing technical advice to farmers. An interview with one of the FBAs revealed that there is little capacity or incentive for the FBA to advise farmers on practices that do not involve purchasing inputs from the FBA. For that reason it is unlikely that HARVEST will want to rely solely on that model for extension purposes. What is required is a combination of approaches that both build farmers capacities to make better agro-ecological decisions generally, and also build capacities of input suppliers to provide advice when needed.

Universities (including the University of Battambang), semi autonomous agencies such

as CARDI, and seed suppliers and out-grower schemes. No single entity has stood out as a potential repository of technical knowledge and it is quite probable that a combination of some or all of the above might need to be empowered to assist producers.

**Can increased capacity to address climate change be sustainable and what is needed to achieve sustainability?**

Strategies are not in place to ensure that the NGOs funded by HARVEST to support CF, CFi and household producers are sustained beyond the life of program. The capacity to address NRM issues on the ground will therefore reside within CF and CFi managers.

Nevertheless, without an empowered manager, little can be done to improve the resilience of natural ecosystems/resources to climate change. HARVEST is supporting the registration and empowerment of CFMC and this is an important enabling activity towards enhanced resilience. With CF managers in place, one may then, in the future, be able to develop capacities for fire management, assisted regeneration following extreme climate events, climate change resistant species selection and management practices. HARVEST is supporting capacity development of CFiMC and this may also lead to increased capacities for resilience although this is less obvious than for CF. Support for watershed management planning is another capacity development activity that may lead to sustainable resilience in the future.

***Nutrition***

The nutritional aspect of the program consists of the home gardens and the nutritional training. The MTPE found that home gardens were quite sustainable amongst those who had the capacity in terms of land, time and finance, to invest in vegetable production, but that the households with such capacity would normally use the home gardens as a means to generate cash more than as a source of food. Even the smallest gardens were planted in such a way that the mature crops could never be consumed by a single family (i.e. staggered planting was not practiced), indicating that while they may have provided food to the household, they were also meant for the market.

In most cases, the poorest households did not appreciate the home garden technology as it required too much time and attention and also, if no pump were available, too much effort to carry water to the elevated cisterns required by the drip systems. The MTPE was told that many of the smaller home gardens were unsustainable and did not produce enough cash to justify the effort or to allow for reinvestment, especially when the foods that were recommended to be grown could be readily accessed either in the wild, or growing loosely “around the back door”.

The nutritional training and WASH messages are simple enough of themselves to be potentially sustainable, although NGO field staff noted that while young beneficiaries and even schoolchildren retained the information well, reinforcement might be necessary on an annual basis for the illiterate and elderly. It was clear however, that once provided to a specific group, training messages are not well disseminated through the community and remain largely with those who first received them. For this reason,

sustainable impact will require the development of ongoing training and re-enforcement capacity.

Currently technical capacity to deliver training and reinforcement resides largely within NGOs. While the NGOs in the Health and nutrition sector will probably continue to deliver the same messages post HARVEST, sustainability could be improved through the training and empowerment of Village Health Support Groups to disseminate the same knowledge, acting where possible in association with self-help (savings) groups. One other possibility might be to embed the expertise in health and nutrition alongside social marketing capacity, i.e. to set up small businesses who can sell oral rehydration salts, contraceptives and other health and nutrition needs and to train them in the delivery of the nutrition and WASH messages.

While a possible avenue might be to develop capacity within Health Centers, it is evident that they are already overstretched and lack the resources available to undertake additional work.

### Conclusions

The program has definitely assisted horticulture clients to dramatically increase yields and income and therefore the practices (particularly those that are cost-neutral) will likely continue post-HARVEST. However, the potential sustainability may be hampered by a high level of dependence on program technicians and a lack of effort to build the capacity of farmers to pass on their knowledge post-HARVEST. Aquaculture faces several barriers to sustainability – namely lack of availability of high quality fingerlings, high market volatility, and extreme flooding events.

The sustainability of HARVEST's policy reform and enabling environment accomplishments is an open question. While STTA has been provided and important stakeholder consultations held on major draft documents, there appeared to be little sustained leadership from key RGC offices. Rather, the work and the conceptualization of the documents reportedly were led by consultants.

There are no sustainable forest or fishery management systems in place for the production of wood products or fish from CF or CFi. This is primarily due to the lack of self-financing mechanisms.

Current and future levels of commercial horticultural production depend upon the continued availability of technical expertise. This has so far been developed within input suppliers, but their capacity for outreach may be limited and it will be necessary to consider other institutions to which horticultural technical capacity can be transferred. Similar concerns exist for rice and aquaculture, albeit to lesser extents since in these cases HARVEST is training each producer in the principles of production so that additional TA is less necessary.

There will probably be some continuation of nutritional messaging post-HARVEST through other NGOs. Nevertheless the program must now begin to seek out alternative

mechanisms at the grass root (Commune) level if it is to achieve real sustainability of nutrition messaging capacity within target communities.

### Recommendations

HARVEST might consider developing a small-scale pilot training and extension system within the program based on the Farmer Field School model to be applied to the rice and horticulture value chains. This pilot activity would apply non-formal education and experiential learning methods, be iterative (results of one phase of training influencing the next), be intensive (at least one training per week throughout at least two or three cropping seasons), and all training modules would occur at the time farmers are facing issues on their farms related to those modules. Very importantly, this TOT system (for the technicians) and training for farmers would need to be conducted by highly experienced, talented and dedicated practitioners of this model of training. Fortunately, there exists in Cambodia a reasonable amount of resources applying these methodologies given many years of Farmer Field School programs by several donors in Cambodia, including DANIDA, UNDP, EU, AUSAID, and World Bank.

This pilot activity – if properly implemented - would increase critical thinking, group working, and agro-ecological decision-making skills among program farmers thus leading to greater appropriate adaptation of practices and increasing the likelihood of sustainability of program efforts, including reducing the dependency on field technicians. Indeed, HARVEST’s senior rice staff have already identified the need for better and more intensive training during the next phase of the program. A Farmer Field School type of training usually requires farmers to sign a “learning contract” which applies peer pressure to ensure farmers attend all the trainings; this should be considered for group clients in the rice component who up until now have attended only a portion of the trainings. Training for rice could include the “rice block” approach whereby farmers on many hectares of contiguous rice fields cooperate on pest control to include synchronizing planting and harvesting which reduces the window within which the two biggest pests can do damage – rats and birds; this generally only works on irrigated rice when farmers can control planting times.

HARVEST should invest in the development of self-financing systems for CF and CFi and should invest in the development of sustainable production systems for the production of wood products from CF.

The program needs to proactively seek out and develop alternative options for the provision of technical assistance to growers and producers once HARVEST is completed. These may include MAFF (although it is recognized that capacity constraints may exist), CARDI, input suppliers and others, including NGOs. Contract farming/out-grower schemes offer opportunities to embed technical assistance capacity within rice and aquaculture value chains.

HARVEST should assess the capacity of Village Health Support Groups, possibly in association with self-help groups, to deliver nutritional and WASH information.

Alternatively, expertise in health and nutrition could be developed alongside social marketing capacity.

## **HARVEST Effectiveness from Partners' and Stakeholders' Views: Results and Rationale for Replication and Scaling**

### **Effectiveness from Partners' and Stakeholders' Views**

Other donors broadly perceived HARVEST to be effective in its approach, but isolated from the general rural development community. Two donors commented that HARVEST was ambitious in its agenda. Two noted that the program communicated its success stories well. One donor diplomatically noted the importance of cultural expertise and sensitivity in working with RGC staff in the field.

One donor expressed concern about the sustainability of HARVEST's approach to production increases in value chains with uncertain market demand. Another expressed concern that, while USAID was well-represented by Mission technical leadership and staff at donor-government fora, the lack of HARVEST technical staff participation limited the larger donor community's understanding of the program's accomplishments and contributions to on-going policy reform dialogue. He felt greater HARVEST technical leadership involvement would be mutually beneficial.

The FAO found HARVEST's collaboration on seed sub-sector policy reform to be very helpful and technically correct.

Local NGO partners noted that the HARVEST approach was intensive and required considerable effort from subcontracted staff, but the program was rewarding and that they achieved personal development through the training provided. Most NGOs regarded the HARVEST approach to value chain development through extension as innovative and more hands on (less supervision, more actual engagement) than they had expected. Only those involved in nutrition remarked that HARVEST's approach was not much different from those of other programs. Some NGOs raised concerns about the sustainability of the interventions. Almost all NGOs raised the issue of HARVEST's universal methodology as being inappropriate to meet the needs of the poorest and most vulnerable. The MTPE was repeatedly told by NGO staff that different assistance packages should be developed to assist the poorest households.

Private sector beneficiaries (input suppliers, financial institutions and rice mills) universally considered the HARVEST program to be useful and to have enhanced their business development. In most cases, such opinions were expressed by businesses that had been required to co-invest and were thus quite objective in nature.

Village-level clients varied substantially in their responses. Those with the most resources were enthusiastic about all value chain interventions including commercial horticulture, aquaculture and rice. The poorest considered most of the interventions to be beyond their capacity. Even the smaller household gardens were judged to be too time consuming and to generate income too slowly to be worth the effort. Surprisingly this also applied to the non-farm interventions, which were almost universally rated as being the least useful of the activities promoted by HARVEST.

Nutritional interventions were well received, especially the mobile food cart which generated an appeal both by being innovative and different and by supplying substantial quantities of free cooked food at each of its sessions, even though not all participants could understand its messages.

It was a common perception amongst some non-participants that by participating in training sessions they might become eligible to receive home garden equipment (especially the drip irrigation and mulch). This suggests that future targeting procedures for home garden eligibility might be based upon successful participation in nutritional and health training rather than vice versa.

Within the RGC perceptions are equally mixed. Commune Councils are generally supportive of HARVEST interventions especially those focusing on nutrition. MAFF representatives at the District level and CDA staff are also supportive of HARVEST and recognize its benefits, although they would like to be more closely involved in the program. Nevertheless they regularly attend training sessions and field days.

At the PDA and above however, there are strong concerns that HARVEST has usurped part of the mandate of the Ministry to work in agricultural development and that the program has adopted an arm's-length approach to MAFF staff. This perception extends to the Ministry level. The focal point for agriculture expressed concern that after initial inception meetings, while the program had benefited from RGC experience in the targeting of beneficiaries, once that process had been concluded there had been no further involvement with MAFF. Instead they had received quarterly reports by email and had been invited to meetings. The response was "we should not be invited, we should be involved". Similar responses were obtained from CARDI who complained that HARVEST was undertaking trials and research that had already been done by CARDI itself, and that the program would occasionally seek advice from CARDI but expected that advice to be provided free. HARVEST's bamboo intercropping with agricultural crops, was another example of interventions undertaken by HARVEST that replicated earlier RGC work (which had shown the technique to be unsatisfactory).

The fact that the senior MAFF GDA manger did not know that HARVEST had reached the mid-point in its 5 year implementation suggests that HARVEST coordination has been intermittent. MOWRAM managers expressed similar concerns that they had little knowledge of or interaction with HARVEST. Management in both institutions felt that they received inadequate information on program progress and challenges.

The NRM component of HARVEST has been viewed in the same way. Communities are all very happy with anything that helps them protect their forest from ELC or other incursions. CFi appreciate the equipment supplied and technical assistance. Most of them have received such free handouts of equipment in the past from ADB and other donors and have no perception that they should or could be managing their resource as a market oriented, profit making community enterprise.

At provincial levels, communications and collaboration between HARVEST and FA and FiA works relatively well, particularly in sharing information and work plans and providing capacity building and training for their partners.

At national level, the collaboration and communication with FA are very poor. Collaboration and communication with FiA and MoE are better but not particularly close. MoE complained that HARVEST support is based on HARVEST's agenda and not on the needs of the Ministry. HARVEST support to MoE on the NBSAP was done upon MoE request, but it is only for a relatively small component of the NBSAP. MoE hopes that HARVEST can now provide support to the development of the NBSAP itself.

Support to CCPF seems to be working quite well. Initial support for watershed management committees seems to be progressing well with good buy-in from various government institutions.

### **Rationale and opportunities for replication and scaling**

Given the fact that many vegetables in the Cambodian market are imported, there is a strong rationale for the replication of commercial horticultural interventions. This is already occurring spontaneously, but sustained replication may be dependent upon the continued availability of technical advice as well as the development of reliable market outlets. As yet there are no commercial entities providing these services and until they might develop sustained replication may be vulnerable.

Isolated replication of HARVEST's aquaculture interventions has also occurred but the availability of fingerlings is a major constraint for out of season producers and is a substantial cost for new entrants. Opportunities for replication do exist, but may be restricted by access to finance and fingerlings. An out-grower scheme that could provide both inputs and a consistent market to new entrants might provide a real opportunity to develop aquaculture.

Similarly, contract farming for rice mills might provide sustainable opportunities for smallholders to access the necessary inputs and secure a consistent market.

Opportunities for the scaling up of seed multiplication through one or more PPP arrangements with CARDI have already been noted.

There are few significant opportunities for scaling up NRM at present, but if the policy constraints to sustainable commercial extraction could be removed here are over 400 CF and over 400 CFi that could be developed. If HARVEST were to develop market-oriented, self-financing management systems for each, the potential for this to be replicated and scaled up by other donors is very high. In particular, the market for the commercial production of wood products is judged to be very good. The development of self-financing systems for CFi will be more difficult, but critical for the sustainable management of this high value resource.

In the area of nutrition, the opportunities for replication/scaling up are very limited in terms of food production but may still exist in terms of the development of community-based support for improved sanitation and dietary practices. Opportunities may exist at

the level of pagoda gardens and could be further developed through support to the Village Health Support Group. Scaling up should be undertaken in conjunction with WASH activities. Savings groups offer a proven mechanism for sustainability.

### Conclusions

Donor perceptions of HARVEST are equivocal and suggest that greater integration with the development community might be beneficial.

Local NGO perceptions vary according to subject area. Those involved in the three value chains regard HARVEST as an innovative and demanding, but rewarding program to be part of. Those involved in nutrition view HARVEST interventions as more conventional.

The private sector business community has viewed the program with enthusiasm, at least as far as participants are concerned. Those outside the group selected by HARVEST were not canvassed.

Beneficiary households varied in their perceptions. While larger producers were enthusiastic, with increasing poverty, HARVEST production focused interventions were considered to be increasingly irrelevant. This was not necessarily the case for the nutrition trainings.

Within the RGC, perceptions also varied. At the grass roots level, Commune Councils and DAs were supportive of the HARVEST program and reported that it was definitely providing benefits to smallholders. DAs complained however that they were insufficiently involved in the program. These concerns were expressed more strongly at the PDA level and above, where there was a sense that HARVEST was operating without reference to MAFF and its mandate to assist smallholders. Concerns were expressed by the focal points for Agriculture and Forestry.

Opportunities for the scaling up of production exist in all three value chains, but will depend upon the further development of both input suppliers and downstream markets as well as the sustainability of TA. Opportunities also exist for the scaling up of NRM if policy constraints could be successfully addressed.

### Recommendations

In conjunction with USAID, HARVEST should consider the development of a more harmonious working relationship with MAFF and other ministries.

HARVEST should work closely with FA and FiA at the national levels on CF and CFi policy, legal and/or regulatory reform. The program needs to work with FA and FiA at both national and provincial levels on the development of market-oriented, self-financing CF and CFi pilots to inform the policy, legal and/or regulatory reforms.

Further attention should be paid to sustainable market development by working with potential buyers of the three value chain products to take advantage of the potential for scaling up in each sector.

### 3.6 HARVEST Management and Monitoring and Evaluation

#### **Findings regarding the effectiveness of management**

The MTPE found that the HARVEST program is tightly managed with a strong awareness of program performance and a focus on meeting targets. Reports are detailed and informative and the Client Impact and Results Information System (CIRIS) provides timely information on performance against indicators. Ratios of expert staff to field staff are effective (not exceeding 1:6). The program has a clear sense of direction and the communication of responsibilities is unambiguous.

A number of issues were noted during the course of the MTE. These are outlined briefly below:

#### ***Staff Workloads and Turnover***

Subcontracted field staff reported that they were finding it difficult to meet the targets allocated to them (currently 90 growers per field technician for the horticultural component). Ideally field-staff should be able to complete their allotted field visits in 4.5 days and should then compile the CIRIS data in the remaining half day of the working week. In practice, floods, missed meetings and other unexpected delays have meant that a significant proportion of field staff reported working seven-day weeks and compiling data in the evenings. The required workload leaves no margin for error and it was reported to the MTPE that 20%-40% of field staff had left the program.

HARVEST management indicated that many of those who had left had moved to better paid work with other NGOs and that the allocated number of growers may drop to about 70 in the next phase of the program. It is important that this should be the case since, irrespective of the reason for leaving, a high rate of staff turnover increases the cost of training and compromises the quality of service provided to growers (especially since new trainees receive less than half the programmed training provided to the original staff and must instead learn “on the job”). Moreover, while the field staff who remained indicated that they did not compromise quality of service, the pressure to start cutting corners in service delivery is ever-present when work loads are high.

It is recommended that management should reduce staff to client ratios to two-thirds of current levels as is anticipated in the coming phase of the program.

#### ***Limited Assessment of Quality of Outputs***

While CIRIS provides good numerical data of HARVEST outputs, there is little emphasis on output quality or impacts. The program focus is therefore more on e.g., the number of training sessions held, than upon the quality of the training provided, or its impact in terms of behavior change. It is recognized that quarterly evaluations can provide some feedback in terms of quality assessment, but discussions with M&E staff revealed that the results of such evaluations rarely led to changes in management practice.

While the duration of the MTPE was inadequate to allow for a proper survey of outputs, it was evident that there was little knowledge amongst the field staff of the impacts that

they might be achieving amongst beneficiaries. In particular, none of the technicians canvassed had any idea of the impact of HARVEST upon the food security of the beneficiaries.

#### *HARVEST interaction with RGC Ministry staff.*

The ASAG under which HARVEST operates was signed between the USG and the Council of Ministers of the RGC. That Council was expected to be effective in directing line Ministries to coordinate with the HARVEST program, but this has not been the case. Line Ministries operate with a greater degree of autonomy than was originally recognized and for effective cooperation, individual Ministries would prefer an agreement of some form to be signed with USAID recognizing the program and allowing for cooperation between HARVEST and Ministry staff. In the absence of such agreements, it has been difficult for higher level RGC staff to cooperate with HARVEST and the relationship between HARVEST and RGC staff at the PDA level and above has suffered as a result.

This issue is fundamental to effective cooperation and RGC capacity development. It lies beyond the capacity of HARVEST management staff to resolve. It will require USG/USAID involvement to facilitate an improved working relationship with RGC staff.

It is recommended that USAID Cambodia should consider the extent to which the current ASAG is meeting the needs implementing agencies both for USAID and for the RGC. Further discussion between the two parties appears to be necessary to ensure that high level agreements are reflected in effective cooperation on the ground.

#### *Community Forestry and Fisheries Development*

Neither the HARVEST contract nor the AAD upon which it was based recognised that the legal frameworks for community forestry and community fisheries severely restrict the generation of revenues for households and for communities from the community forests and fisheries. As a result, the contractor has made very limited progress towards the development of commercially sustainable natural resource management. Moreover, a lack of alignment between contractual obligations and performance indicators has meant that the contractor has effectively not respected large parts of the obligations stated under the NRM component of the results framework. Instead, HARVEST recruited an agroforestry expert, a reforestation expert, a PA expert and a bamboo furniture making expert and concentrated on these activities. None of these positions are core to what is called for in the contract. The program has not recruited the type of expertise needed for the development of the market oriented natural forest and fisheries management that is required to meet contractual obligations.

This has meant that when assessed against the contract, performance in this component is inadequate.

It might be considered a reflection of the level of commitment to this component of HARVEST that the matter remains unresolved at this mid-term stage, and it should be resolved urgently. It is recommended that the focus upon the original contract objective of sustainable management and conservation of the natural forest and fishery resources

should be maintained. The contract should be modified to ensure that the performance indicators reflect sustainable natural resource management. In particular that core management costs of fisheries and forest management are paid by operational community-managed fisheries or forest management funds that are fed with revenues generated from the commercial use of the resource being managed. HARVEST should refocus its energies on meeting that objective.

Future progress will require the identification by HARVEST of potential ways in which this matter might be progressed (as has been achieved by a small number of other programs and is outlined in Findings on Results, Component 3 of this report) and the recruitment of staff capable of developing market-oriented, sustainable natural forest and fisheries management systems.

### *HARVEST/USAID Coordination*

The USAID Harvest 2011 Coordinated Implementation Plan, outlines the methodology designed to achieve “transparent communications and information sharing across the board” including close cooperation with both the RGC and USAID. HARVEST has generated a substantial volume of reports, success stories and other outputs in support of these objectives, yet fundamental issues of program management (in particular the extent to which HARVEST might work with the RGC, the elimination or proposed elimination of a large portion of the program’s policy agenda, and the issues relating to Communal Forest and Fishery Management Committees’ policy and sustainability) remained unresolved.

While the framework for effective coordination is in place, major issues related to program management have not been jointly addressed. This speaks to a lack of communication between HARVEST management and USAID. The lack of communication does not appear to be due to inadequate communication capacity of either party. The alternative explanation is that one, or other, or both parties have been unwilling to communicate and jointly address the outstanding issues.

It is beyond the remit of the MTPE to attempt to determine what events or circumstances might have led to the current situation. Nevertheless it is evident that a sound framework for management communication was established but that adequate communication has not occurred and significant issues relating to the performance of the contract are outstanding. An improved working relationship between HARVEST and USAID is necessary if these and any other issues that might arise in the future are to be addressed effectively.

### *Findings regarding effectiveness of M&E*

#### *Design*

Under the section c.4.6 of the SOW, the contractor is required to design a Monitoring and Evaluation program, inclusive of an illustrative Performance Monitoring and Evaluation Plan (PMEP). The current HARVEST PMEP is effective from the 10<sup>th</sup> of December 2012

The MTPE observed that the M&E program document is more theoretical than practically focused. It does not define the roles and responsibilities of the implementing program staff under each component of HARVEST; neither does it allow the effective integration of M&E into all activities of the program. The M&E manager has not been given the capacity to design measurements necessary to ensure the quality of the program. Instead, M&E arrangements have been drafted by the management team and the head office of the Contractor.

The M&E program should be capable of evaluating the impact of the program at the beneficiary level. In the context of the PMEP M&E indicators should quantify the extent to which program elements are contributing to the program objectives. M&E indicators should also facilitate the comprehensive impact evaluation.

The comprehensive impact evaluation has been designed to attribute the outcomes and impacts to program operations, and to provide baseline data for relevant indicators at the outcome and impact levels. Baseline data has been collected and analyzed by Cambodia Development Resource Institute (CDRI), but the coordination of the impact evaluation does not lie within the HARVEST M&E unit and the indicators collected by the HARVEST M&E team are not fully compatible with those collected by CDRI.

It was observed that contextual effects and commune development characteristics were not accounted for in the impact evaluation design. Although a quasi-experimental method and double difference technique will be applied to measure the impacts of the program, a more rigorous approach for data analysis should be considered, including the use of a multilevel panel data analysis using double difference model. (Data about the development at commune level could be accessed from the Program Information Database (PID) of the National Committee for Sub-National Democratic Development (NCDD) and Commune Database (CDB) from the Ministry of Planning).

The contractor is obliged to implement an activity result reporting system that undertakes activity-level verification and validation of results and ensures the timely reporting of accurate and precise results from key program implementers. A web-based database, namely 'Client Impact and Results Information System (CIRIS)', has been designed to track performance indicators and report the progress. This system has been integrated into all M&E activities.

The results framework approach has been adopted to report progress against all the 25 indicators within the Performance Indicator Report. In addition a Performance Monitoring Survey is undertaken on a quarterly basis to capture the incomes from crops and related practices of the techniques from the program. Overall, substantial arrangements have been made to meet the requirement of the Monitoring and Evaluation Program in the SOW.

The M&E requirements in the SOW and the HARVEST PMEP are characteristic of a result-driven approach. There is no evidence however of any 'Process/Formative Evaluation' to ensure the quality of the activities. This limits both the usefulness of the

output and outcome indicators as measurements of progress towards program objectives as well as opportunities for learning.

The achievement of numerical output indicators will not be translated into results if there is no mechanism to ensure the quality of the outputs. Failure to integrate a process/formative evaluation into the PMEP and the arm's length relationship of the M&E system to overall program management have limited the capacity of the M&E program to provide strategic information that might increase knowledge, and identify successes and lessons learned from the program (as required under the contract). So far the M&E component of HARVEST has not responded to this aspect of the contract.

### *Implementation*

There is no evidence of integration of the M&E activities and responsibilities within the activities of each program component. Instead, the PMEP has mainly been implemented by the M&E program staff working alone. Although implementing staff from other components have carried out some monitoring of their own interventions, they have not been equipped with M&E tools to ensure the quality of the results. Generally they have recorded only the data for the output indicators, for instance, the number of clients adopted home garden, commercial horticulture, rice and seed production, etc. and their income respectively. There is no system to ensure the direct feedback that might result in improved implementation practices. M&E staff should develop and facilitate a direct feedback to be carried out by technical staff.

The use of M&E staff to collect and enter data is of doubtful efficiency. At present the four M&E staff from each province spend about 70-80% of their time in data entry and spend the remaining time collecting data for the quarterly Performance Monitoring Survey. Student interns could be used to interview clients using a structured questionnaire and for recording data in CIRIS, allowing M&E staff to monitor other intervention activities across the components, especially to provide feedback on the quality of the activities. Increased costs could be minimized through the use of technology-assisted tools like tablet or smart-phone in the field. The number of interns required would be based on the actual workloads and lessons learned during implementation.

It was also observed that the process of data entry into CIRIS involved needless repetition by both field and M&E staff. It was reported that a new system is to be introduced that will obviate this requirement. This should allow M&E staff the capacity to spend more time in the field to ensure the quality of data.

Field technicians and M&E staff have collected some overlapping data. Some questions, (e.g. income from crops) appear in both the data collection forms used by field technicians and in the quarterly Performance Monitoring Survey.

When assessing income from different cycles of crops, it is commonly recognized that the risk of recall bias is high. In addition, the use of panel data on a quarterly basis for a sampling survey is short enough to allow respondents to recall previous responses and

bias results accordingly. Given the context of HARVEST, this issue could be overcome by routine data collection system to be carried out by relevant technical staff and assisted by interns.

There has been little dialogue to date between the M&E program and technical programs. The M&E program has been given little opportunity to participate in the assessment of activities and to provide feedback for quality enhancement.

Although efforts have been made by the HARVEST to improve the efficiency and effectiveness of the M&E system, the limited involvement of the M&E unit in program management restricts its capacity to ensure the quality of the program activities and to document learning processes. In many institutions, the M&E program has the responsibility to recommend changes and options in management procedures so as to ensure the quality of the activities. This is not the case in HARVEST.

### Conclusions

The HARVEST program is closely managed with a strong focus on the achievement of its targets. The CIRIS management information system allows this to be achieved but is limited in the extent to which it reports on the quality of outputs or their impacts.

A system for learning from achievements to date has not yet been well established. It would be helpful to design an annual knowledge, attitude & practice survey within the M&E program. The results from such a survey could be utilized to inform the program implementing staff and partners about the quality of their activities.

Turnover ratios of subcontracted field technicians are high. Their workload allows little room for error and they cannot always complete their workload in the time available. Some staff complain of consistently working into the evenings to meet their targets. This may reduce the quality of the service that they can provide to clients while the turnover results in additional training costs, and a lower standard of training.

The ASAG under which HARVEST operates has proved inadequate to meet the requirements for cooperation between HARVEST and some line ministries within the RGC. It has been difficult for higher level RGC staff to cooperate with HARVEST and the relationship between HARVEST and RGC staff at the PDA level and above has suffered as a result.

HARVEST has made only limited progress towards the development of commercially sustainable natural resource management. Moreover, a lack of alignment between contractual obligations and performance indicators has meant that the contractor has effectively not respected large parts of the obligations stated under the NRM component of the results framework. This has meant that when assessed against the contract, performance in this component is inadequate.

Two years into program implementation, fundamental issues of program management (in particular the extent to which HARVEST might work with the RGC, the elimination or proposed elimination of a large portion of the program's policy agenda, and the issues

relating to communal forestry and fishery committees' policy and sustainability) remained unresolved.

**Recommendations:**

The emphasis within the program upon the quality of service to clients should be increased to match the emphasis upon meeting targets, while including changes in the M&E data collection to allow for the monitoring of impacts as well as activities. In particular, the number of clients visited by each field technician should be reduced to allow greater emphasis on quality of support.

It is recommended that HARVEST and USAID should jointly consider mechanisms to address the perceptions of limited cooperation expressed by Ministry and PDA officials, and that whatever response is developed should be monitored to ensure its effectiveness.

With regard to NRM, It is recommended that the focus upon the original contract objective of sustainable management and conservation of the natural forest and fishery resources should be maintained. The contract should be modified to ensure that the performance indicators reflect sustainable natural resource management and the HARVEST should refocus its energies on meeting that objective.

Future progress will require the identification by HARVEST of potential ways in which this matter might be progressed and the recruitment of staff capable of developing market-oriented, sustainable natural forest and fisheries management systems.

The matter of unresolved contractual obligations suggests that while a framework for effective coordination is in place, an improved working relationship between HARVEST and USAID is necessary if outstanding contractual matters and any other issues that might arise in the future are to be addressed effectively.

With regard to the M&E system, the following is recommended:

1. HARVEST should update the PMEP to guide the M&E activities including clear definition of:
  - a. Roles and responsibilities of the M&E program and implementing staff of other programs.
  - b. All M&E activities and requirements
  - c. Timing and requirements of quarterly Performance Monitoring Surveys, Special Surveys, Impact Evaluations, and evaluations of other training activities.
2. In order to provide strategic information regarding overall program activities, the M&E program should be placed at a director level with appropriate program responsibilities.

3. To date, the M&E methodology has been restricted to a quantitative approach. In order to ensure the quality of activities, particularly the training programs, a qualitative approach should be integrated into the evaluation design.
4. The M&E program would benefit from the involvement of young interns from local universities in the field. The HARVEST program could provide an opportunity for local universities from the provinces to send outstanding students for internship with M&E department to help field technicians in data collection and data entry, and to participate in special surveys and evaluations. A specific capacity development plan could be designed, and students evaluated before and after the internship.
5. The nature and content of routine data collection by field technicians, quarterly performance monitoring surveys, and special surveys should be revisited with technical guidance from the local M&E experts. A local perspective will improve that aspect of data collection techniques.

### 3.7 Overarching conclusions and recommendations

#### Overall conclusions

The HARVEST program has resulted in a paradigm shift in commercial vegetable production in the four provinces in which it has been working. The transformation appears to be both sustainable and replicable provided there can be a continuation of technical support to growers.

Developments in rice and aquaculture are less pronounced and more uncertain in terms of impact, but could also lead to long term gains if embedded within strengthened value chains.

- In the case of rice, the key value chain developments are those that will allow a consistent supply of good quality seed and the development of contract farming arrangements with rice mills through which technical assistance might be provided on a commercially sustainable basis.
- In the case of aquaculture, strengthening of the value chain will similarly require the development of a consistent supply of healthy fingerlings and a consistent and reliable market for the fish produced.

In all value chains there is a concern regarding the sustainability of the technical assistance that is currently supporting the process of change. Technical assistance capacity currently residing in the subcontracted NGOs must be transferred to commercially sustainable private sector entities, to government or, where there are specific fits of skill sets, to autonomous entities such as CARDI.

Home gardens have varied in their effectiveness. Along a spectrum of increasing poverty, households have become less and less able to provide the land, finance or labor required to develop successful home gardens. Home gardens do not appear to provide a sustainable solution to the challenge of increasing food production and improving nutrition amongst the most vulnerable.

Overall, HARVEST interventions in production are most effective when applied to those who are not classified as ID Poor1 or ID Poor 2 (and who therefore would be judged to have adequate income to purchase both enough food and additional necessities for survival). Such better off households have been targeted in excess of their frequency within the target provinces. Poorer households who represent more than 30% of the population within target provinces are only targeted at the 20% level. The production components of HARVEST thus target for success in production and do not focus on the most vulnerable households that are the focus of FTF-C.

The nutrition element of HARVEST was not well enunciated in the original contract, but has since been well developed to the maximum extent possible and represents the most practicable form of assistance that HARVEST currently provides to the poorest

households. Baseline data suggests that it can also improve the food security levels of higher income households that are nevertheless poorly nourished.

Natural resource management activities have not been well developed. This may be due in part to legal and policy constraints that prevent the sustainable commercial exploitation of community forestry and fishery resources. Nevertheless, some avenues for pilot development of self-financing, market oriented forest and fisheries management accompanied by policy reforms do exist and need to be investigated.

### **Key lessons learned**

The HARVEST program has evidenced the following:

It is difficult to provide support to the poorest in rural Cambodia, especially the youth and the elderly through production-based interventions. Such populations require an approach that is well tailored to their circumstances, especially to their lack of productive resources, and to their dependence upon employment as a source of income. For the poorest households food production is a low priority activity for which the investment in resources, especially time, rarely justifies the returns.

By contrast, an approach to production that emphasizes increased investment can result in remarkable success, particularly when the level of investment is enough to generate substantial improvements in output. Under such circumstances, a paradigm shift in production technology can be achieved and growers' aspirations can be raised, thereby promoting sustainability and replication.

From these two perspectives it is clearly inappropriate to adopt a limited portfolio of technical solutions within a program that attempts to reach all levels of rural society. A broader range of solutions requiring a greater range of skill sets – as might be achieved through a consortium approach – might be more appropriate to a program of as wide a scope as HARVEST.

The limited understanding of the restrictions upon sustainable natural resource management expressed in the AAD and HARVEST contract suggest that a short (one year) preliminary learning program might have been appropriate to scope out a longer term program such as HARVEST. In the event, HARVEST has itself become a learning program that has now accumulated considerable experience that could inform the design of future programs to be implemented after 2015. From this perspective it will be as important and helpful to catalogue the constraints, issues and failures of HARVEST as it will be to record its successes.

### **Overall recommendation for implementation**

HARVEST must actively seek out and empower alternative institutions for the provision of sustainable technical assistance to producers. Transfer of technical skill should be achieved within the next two years.

Ongoing relationships with line Ministries should be strengthened to allow mutual recognition and interaction between RGC and HARVEST staff at all levels.

The program should support the development of market-oriented, self-financing CF and CFI on pilot sites in all four provinces and should RGC in undertaking policy reforms that are informed by the lessons learned at the pilot sites.

Future investment in the development of improved nutrition should be based at the community level, possibly within self-help groups, but should select and drive associated investments in WASH and/or production, rather than being driven by them. Ongoing monitoring of nutritional indicators, especially of height for age at 2 years (to monitor stunting) should be introduced.

Greater emphasis upon communication between HARVEST and USAID within the existing mechanisms for cooperation listed in the HARVEST Coordinated Implementation Plan – v2 (February 2011) would help mitigate some of the issues described above.

## 4. Annexes

### Annex A: Mid Term Performance Evaluation Scope of Work

# STATEMENT OF WORK

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## *Mid-Term Performance Evaluation of Helping Address Rural Vulnerabilities and Ecosystem Stability (HARVEST Project)*

### 1. Introduction

This Statement of Work (SOW) is for a team composed of four local consultants, four international consultants, and two USAID personnel (Washington) to conduct the mid-term performance evaluation of HARVEST for USAID/Cambodia. The evaluation is expected to start **o\ a September 1, 2013 and end o\ a Nov 15, 2013.**

HARVEST is a five-year integrated food security and climate change program supported by the American people through the United States Agency for International Development's Feed the Future (FTF) and Global Climate Change (GCC) initiatives. The program seeks to reduce poverty and malnutrition by diversifying and increasing food production and income for up to 70,000 rural Cambodian households. HARVEST develops agricultural-focused solutions to poor productivity, postharvest losses, malnutrition, lack of market access, environmental degradation, and the effects of climate change on vulnerable rural populations (refer to Annex I for details).

### 2. Evaluation Purpose

This external evaluation comes at the mid-point of HARVEST; USAID/Cambodia's flagship FTF activity. The key purposes of the evaluation are to (1) assess progress towards achievement of the expected results; (2) assess the effectiveness of project design, the implementation approach, the impacts and the sustainability of the project; and (3) identify (if any) actionable recommendations based on the lessons learned to guide implementation for the remaining period of the project and/or help guide design of any follow-on work.

The audience for the evaluation report will be the USAID/Cambodia Mission, especially the Food Security & Environment Office (FSE) and USAID/Cambodia Senior Management; USAID/ Washington Bureaus, specifically the Bureaus of Food Security (BFS) and Economic Growth, Environment and Education Bureau (E3); and Fintrac Inc. and its partners. An executive summary, findings and recommendations will be provided to the Office of the Council of Ministers of the government of Cambodia and development partners working in Cambodia. The evaluation report will be made

available to the broader public through submission to the Development Experience Clearinghouse (DEC).

*Key criteria to address are outlined below:*

### **Relevance**

The evaluation should gather information on the perception of development partners and government counterparts about the HARVEST project; partners/counterparts include donors, local non-governmental organizations (LNGOs), international non-governmental organizations (INGOs), government agencies (both at national and local levels), direct beneficiaries, farmers and other community members, and private sector entities. The evaluation should specifically address questions to these partners/beneficiaries about areas such as coordination of implementation with other development partners and government (national to local) entities; the approaches and technologies promoted by the project; if stakeholders consider the project to be important; the selection of beneficiaries; and if the needs of the beneficiaries have been addressed. These questions should seek to clarify the basis of these perceptions—the reasons why these perceptions were formed.

### **Effectiveness and Efficiency**

The evaluation should describe whether or not different project components/aspects are working well and why/why not. This should include discussion of any major challenges facing or opportunities available for HARVEST implementation and achievement of results as well as whether actions required to address these opportunities are within the manageable interest of USAID and/or the project. The team should identify actions that could practically improve project performance during the remaining half of the HARVEST contract, and determine if there are actions that are absolutely required in order for HARVEST to achieve its objectives.

The team should also outline to what extent different components/aspects of HARVEST complement each other to achieve greater overall impacts. The evaluation should detail if project management arrangements been appropriate and effective and if not, make recommendations on any areas that need to be improved and how.

Lastly, the team should determine to what extent and how has HARVEST contributed to the following: Feed the Future objectives and targets for USAID/Cambodia; Global Climate Change (Adaptation and Sustainable Landscapes) and other environment (natural resources management and biodiversity conservation) objectives and targets for USAID/Cambodia; successful integration of FTF and GCC activities and effective achievement of results for both initiatives; and USAID/Cambodia's gender equality and female empowerment objectives.

### **Impact**

The evaluation should address the impact HARVEST has on increasing incomes and economic benefits; strengthening natural resources management and resilience to climate change; and improving the wellbeing, including food security, of targeted

beneficiaries (with special consideration of women, youth and minority groups). Specifically, the evaluation should discuss the impact HARVEST is having now on youth, i.e. the future generations of farmers.

### **Sustainability**

The evaluation should analyze HARVEST's approach to build capacity among local institutions and people to implement project activities and continue these activities in the absence of technical and financial assistance. The evaluation team should identify potential weaknesses or threats to sustainability and provide recommendations for addressing them.

### **Future Programming**

The team should identify lessons in terms of activities, approaches or issues that should be incorporated into the design of onward programming after the conclusion of HARVEST. This should include recommendations for agriculture, environment, gender equality and female empowerment, broader economic growth, and nutrition sectors that would help scale up results in Cambodia.

### **3. Evaluation Questions**

USAID/Cambodia seeks independent evidence of project progress to date, to learn any lessons or best practices as well as potential deficiencies, and know available options for improvement. To guide the evaluation team, the findings should be able to address the following questions:

1. To what extent and how has HARVEST and each of its program components met objectives and expected results per its contract, under Feed the Future, and Global Climate Change? This should include an analysis of the success and effectiveness of integrating FTF and GCC activities, coordination with other USAID projects working in Cambodia and whether the needs of target beneficiaries (to include women, youth and minority groups) have been met.
2. Have project interventions been effective in increasing incomes and economic benefits; strengthening natural resources management and resilience to climate change; and improving the wellbeing, including food security, of targeted beneficiaries (with special consideration of women, youth, and minority groups)? Are there specific types of additional technology that are not used but can potentially be integrated into various project components to achieve objectives of the contract?
3. To what extent and how has HARVEST and each of its program components met the priority outcomes defined in USAID's Gender Equality and Female Empowerment Policy and USAID's Youth in Development Policy?

4. To what extent and how has HARVEST built the capacity of local partners (government, academia, NGOs, farms and other private sector enterprises, women, minority groups, etc.)? This should include an analysis determining if different types of partners are benefiting differently from capacity building and why.
5. Describe the sustainability of the results obtained by the program under each component/activity. If any results are found to be unsustainable (in the short and long term), why and are there practical adjustments that can improve the sustainability of these results during the latter half of the HARVEST project?
6. What is the opinion of development partners (donors, LNGO, INGO) and other partners (farmers and other private sector entities, government agencies, both direct beneficiaries and other community members) about the effectiveness of the HARVEST project? For example, have development partners used aspects of HARVEST as a model to replicate or scale-up through their own work (now or in future plans) and why/why not?

From these questions' findings, the evaluation team should provide specific recommendations that the program could implement over its remaining period to increase the impact of activities.

#### ***4. Evaluation Design and Methods***

##### ***Evaluation Design***

Evaluation methodologies must be rigorous to achieve the purpose of the evaluation. The evaluation team should support their conclusions and recommendations using credible evidence-based information (using scientific methods for data collection). More information on the USAID Evaluation Policy can be downloaded at:

<http://transition.usaid.gov/evaluation/about.html>.

HARVEST's Impact Evaluation baseline data is available. Prior to arrival in Phnom Penh, the Team Leader of the evaluation team should communicate with Michigan State University and HARVEST management to request specific data with which to analyze project results.

##### ***Data Collection***

The evaluation team is expected to employ a mixture of data collection methods (both quantitative and qualitative). Prior to their arrivals in Phnom Penh, the evaluation team is expected to review and be familiar with the documents listed below:

- Section C of the HARVEST Contract (and any significant modifications)
- Annual reports
- Quarterly reports

- Annual work plans
- Phase 1 – synthesis report
- LOP Implementation Plan
- Monitoring and Evaluation Plan (PMEP)
- Technical reports
- Baseline survey report
- Preliminary draft of the USAID RIG Performance Audit

The evaluation team is expected to request, prior to arrival in country, specific data or information from HARVEST project management or USAID/Cambodia to develop a draft data collection plan. USAID/Cambodia can facilitate the formation of field teams as needed. These teams aim to aid the evaluation by achieving gender balance in each team, crossing cultural and language barriers, and enabling more data collection in a shorter period of time while transferring skill and experience to local evaluation specialists. Methods recommended for data collection include, but are not limited to:

1. **Desk Review of Key Documents:** the team should conduct an extensive desk review of documents provided by the USAID and HARVEST team.
2. **Key Informant Interviews:** to evaluate the key stakeholder's perception, the team should conduct interviews with the development partners, private sector, government agencies (national and sub-national), and farmers (beneficiaries).
3. **Focus Group Discussion (FGD):** to conduct 8 FGDs - two (one women only group) in each of the four provinces that include between 7 to 10 people for about two hours - at the community level to evaluate stakeholders' perceptions and opinions about the benefits from participating in the project.
4. **Field Observations:** to conduct the field visits to observe and talk directly with the farmers/beneficiaries about their percept on the approach and results.
5. **Analysis of Project Outputs and Results:** to conduct the analysis of project data provided by HARVEST.

A list of required, but not limited to, meetings is provided below:

- HARVEST key management staff.
- USAID/Cambodia's relevant technical staff especially those of the Office of Food Security and Environment.
- Key staff of donor agencies who are members of the Technical Working Groups (TWGs) including TWG\_Agriculture &Water; TWG\_Fisheries; TWG\_Forestry &Environment; TWG\_Food Security&Nutrition; TWG\_Gender, etc.
- Key government counterparts (national and sub-national): Ministry of Agriculture, Forestry and Fisheries (including Fisheries and Forestry Administrations), Ministry of Environment, Ministry of Water Resources and Meteorology, Ministry of Women Affairs, Consultation Committee for Economic

Growth Program of OCOM and USAID, Council for Agricultural and Rural Development, and relevant provincial departments.

- Other NGOs working in the Feed the Future – Cambodia’s or FTF-C’s zone of influence, including the local NGOs partners sub-contracted by HARVEST.

### **5. Evaluation Team**

The evaluation team will be composed of a Team Leader, three Technical Experts and two individuals from USAID Washington. In addition to the above composition, the team will also be assisted by four Local Evaluators.

The evaluation Team Leader and Technical Experts are required to have experience, skills and expertise in: (i) designing and leading project/program evaluation, (ii) quantitative and qualitative data analysis and preparing high quality evaluation reports. All team members must have a higher education and background in agriculture and/or economic growth and excellent English oral and written skills.

### **Roles and Responsibilities**

**Team Leader (1):** Is responsible to lead and coordinate all aspects of the evaluation, including planning and managing the whole evaluation process from the beginning to the end and submitting required reports. More explicitly, with contributions from team members based on their specific scopes of works as agreed among the team, the Team Leader is responsible for drafting, presenting and finalizing the evaluation report. In addition, he/she is responsible to manage and coordinate the logistics for field visits. The Team Leader is a senior person who has broad knowledge and experience in program evaluation and project/program management in areas of nutrition, gender equality and female empowerment, natural resource management in relation to USAID agriculture and rural development programs.

**Technical Experts (3):** Are responsible to provide his/her evaluation inputs (as agreed among the team) to the Team Leader. This will include, but is not limited to, helping develop an evaluation plan, conducting a desk review, participating in meetings, collecting data, analyzing data and drafting the final report. In addition, he/she is responsible to manage and coordinate the logistics for field visits as delegated by the Team Leader. The Technical Experts include:

1. Agriculture Development Expert (rice, horticulture, fish).
2. Natural Resource Management Specialist (community-based NRM, NTFP, etc.).
3. Development Expert (agriculture policy, private sector and enabling environment).

**USAID/Regional and Washington Personnel (2):** Are responsible to provide their evaluation inputs to the Team Leader. This will include, but is not limited to, helping develop an evaluation plan, conducting a desk review, participating in meetings, collecting data, and drafting field report. In addition, he/she is responsible to manage and coordinate the logistics for field visits as delegated by the Team Leader.

**Local Evaluators (4):** Are responsible for, but not limited to, logistical and travel arrangements as delegated by the Team Leader; setting up and attending meetings; and arranging and participating in field work, meetings and focus group discussions including data collection, field reporting, interpretation, and analysis.

## **6. Evaluation Products**

The evaluation team will propose the evaluation design and methodology, data collection and data analysis methods that best answer the evaluation purpose and questions in section II and III above.

### **Deliverables**

**Inception Report:** The evaluation Team Leader will prepare an inception report summarizing what is known from reviewing existing data mentioned in section IV and literature reviews. The inception report will also include details of the proposed evaluation design and methodology, data collection, data analysis method and a detailed schedule. The Team Leader should submit the report to USAID/Cambodia for approval no later than five working days after the signing the agreement and before arriving in Phnom Penh.

**Courtesy Call with USAID and Data Collection Plan:** Upon arrival in Phnom Penh, the evaluation team will make a courtesy call with the USAID/Cambodia Mission Director and the management team of the Office of Food Security & Environment (FSE). The evaluation team will present to the FSE team the evaluation data collection plan.

**Debriefing with USAID:** The evaluation team will present the major finding(s) of the evaluation to USAID/Cambodia staff through a PowerPoint presentation after the field visits. The PowerPoint slides of the evaluation result should be sent to USAID/Cambodia for review prior to the debriefing. The presentation will include key findings, conclusions and recommendations.

**Draft Evaluation Report:** A digital copy of the draft evaluation report shall be submitted to USAID/Cambodia prior to departing Cambodia. The draft report should clearly describe findings, conclusions and recommendations. USAID/Cambodia will have five working days to provide comments.

**Final Evaluation Report:** The evaluation team will submit a digital copy of the final report that incorporates comments from USAID/Cambodia no later than five working days after receiving comments from USAID/Cambodia.

### **Reporting Requirements**

- The evaluation report should represent a thoughtful, well-researched and well-organized effort to objectively evaluate what worked in the project, what did not and why, and what can and cannot be made better.

- The evaluation report shall address all evaluation questions included in this statement of work.
- The evaluation report should include the statement of work as an annex. All modifications to the statement of work, whether in technical requirements, evaluation questions, evaluation team composition, methodology or timeline need to be agreed upon in writing by the Contracting Officer's Representative (COR).
- Evaluation methodology shall be explained in detail and all tools used in conducting the evaluation such as questionnaires, checklists and discussion guides will be included in an annex to the final report.
- Evaluation findings should also address how gender has been considered and impacted by the project. All data should be sex-disaggregated when appropriate.
- Limitations to the evaluation shall be disclosed in the report, with particular attention to the limitations associated with the evaluation methodology (selection bias, recall bias, etc.)
- Evaluation findings should be presented as analyzed facts, evidence and data and not based on anecdotes, hearsay or the compilation of peoples' opinions. Finding should be specific, concise and supported by strong quantitative or qualitative evidence.
- Sources of information need to be properly identified and listed in an annex.
- Recommendations need to be supported by a specific set of findings.
- Recommendations should be actionable, practical and specific, with defined responsibility for the action.

The evaluation report must not exceed 40 pages in length excluding annexes. The format of the evaluation report can be visited here

<http://transition.usaid.gov/policy/evalweb/documents/TIPS-ConstructingAnEvaluationReport.pdf>.

1. **Executive Summary** – Concisely state the most salient findings and recommendations (1-2 pages)
2. **Table of Contents** (1 page)
3. **Introduction** – Purpose, audience, and synopsis of task (1 page)
4. **Background** – Brief overview of the project (2 pages)
5. **Methodology** – Evaluation methodology, data collection, data analysis method, and constraints if any. (1 – 2 pages)
6. **Findings** – Qualitative and/or quantitative based findings
7. **Conclusion** – Conclusion based on findings
8. **Recommendation and Lessons Learned** – Supported by findings and conclusion
9. **Reference** – Including bibliographical documentation, meeting, interviews etc.

10. **Annexes** – Annexes that document evaluation SOW, data collection instruments i.e. interview guide, raw data (in soft copy), analysis tables and graphs, interview lists, transcriptions and tables – should be succinct, pertinent and readable. One Annex should be a chart linking evidence, findings, and recommendations.

## **7. Evaluation Management**

### **Logistics**

USAID/Cambodia will:

- Provide overall direction to the evaluation team;
- Provide documents mentioned in section IV;
- Organize in-briefing and debriefing;
- Assist in arranging meetings with contractor and sub-contractors of HARVEST project; and
- Ensure that USAID/Cambodia personnel will be made available to the evaluation team for consultations regarding sources and technical issues, before and during the evaluation process.

The evaluation team will:

- Arrange meetings necessary for the evaluation; meetings to take place during the first week in-country should be arranged and scheduled prior to arrival;
- Arrange vehicle rental and driver for site visits;
- Arrange working space and equipment necessary for the evaluation; and
- Arrange computers, internet access, printing, and photocopying.

### **Evaluation Timeline**

This evaluation is to be carried out over a period of approximately seven weeks, o\September 1, 2013 and end o\November 15, 2013. The core tasks include:

**Desk review and initial plan (home office) – Week one:** Obtain key documents, desk reviews, make key contacts to draft initial evaluation plan. This work will be conducted before arriving in Phnom Penh (via email, skype or conference calls). The team will work through USAID/Cambodia and the HARVEST Chief of Party to schedule as many meetings and interviews as possible prior to arrival in Cambodia. The local evaluators should be available to assist upon the team’s arrival in country.

**Team arrival and initial meetings – Week two:** The evaluation in-country begins with an in-brief meeting with USAID to report initial findings from desk reviews and to present the draft evaluation plan. Phnom Penh based stakeholders should be interviewed, data gathered, and key secondary information and data that had not yet available to the team reviewed and analyzed. During this period, it is expected that the whole team

meets often to discuss initial findings from secondary sources of information and to develop the evaluation approach. Specific field activities and stakeholders for visits and interviews shall be identified and the evaluation plan shall be finalized.

**Field work – Week two, three and four:** The evaluation team will concentrate most of their time during these entire three weeks on interviews and discussions with project clients, donors, government officials, and representatives of project partners. The team will be divided to visit and assess project activities and conduct focus group discussions in project's targeted areas. Specific activities and stakeholders, in addition to those which were already identified during week one, can be selected for visits and interviews if deemed necessary. At the end of week four the evaluation team should prepare and consolidate preliminary findings and submit to USAID/Cambodia for review prior to de-briefing in week five.

**Draft report – Week five:** Preliminary findings from the field will be de-briefed to the USAID/Cambodia and HARVEST project team. It is expected that feedback from the meeting will be given to evaluation team to incorporate into draft final report. Submission of the final draft report to USAID/Cambodia should be done by the end of week five before the departure of evaluation team. USAID/Cambodia will provide comments on the final draft report no later than one week (five working days) after receiving the draft final report.

**Final report:** The final report will be submitted to USAID/Cambodia no later than one week (five working days) following receipt of comments from USAID/Cambodia.



## *Annex 1: Summary of Project Background and Context*

### *Project Identification Data*

Project Title:	Helping Address Rural Vulnerabilities and Ecosystem Stability (HARVEST)
Contract Number:	AID-442-C-11-00001
Program Funding:	\$56,789,256 over 5 years
Implementing Partner:	Fintrac Inc.
USAID/Cambodia Technical Office:	Food Security and Environment
AOR/COR :	William Bradley
Alternative AOR/COR:	Sambath Sak
Project Start and End Date:	12/22/2010 – 12/21/2015

### *Project Background*

HARVEST is a five-year integrated food security and climate change program supported by the American people through the United States Feed the Future and Global Climate Change initiatives. The program seeks to reduce poverty and malnutrition by diversifying and increasing food production and income for up to 70,000 rural Cambodian households. HARVEST develops sound, agricultural-focused solutions to poor productivity, postharvest losses, malnutrition, lack of market access, environmental degradation, and the effects of climate change on vulnerable rural populations.

### *Project Objective*

The overarching goals of HARVEST are to improve food security; strengthen natural resource management and resilience to climate change; and increase the capacity of the public and private sectors and civil society to support agricultural competitiveness. Specific objectives include:

- Increase incomes for 70,000 rural households;
- Accrue economic benefits for 140,000 people;
- Develop income-generating activities for 7,000 "extreme poor" households;
- Diversify cropping systems for 31,500 households; and
- Generate \$20 million in incremental new agricultural sales.

### *Project Components:*

Food security, biodiversity and global climate change are inextricably linked and intertwined and are the focus of HARVEST. With food value chain strengthening and income diversification, the agricultural sector has the potential to become a major contributor to stability and economic growth for Cambodia and the region. With improved land use and resource management, Cambodia's sensitive ecosystem and its rich biodiversity can be conserved and the vulnerability of agriculture and rural communities to climate change impacts can be reduced.

Reducing hunger and maintaining sustainable use of natural or communal resources are the central themes of this program. The Contractor shall bring together the collection and integration of HARVEST components to form a unified goal to address food security and global climate change.

## COMPONENT 1 – Food Availability Increased

Agriculture is critical to food security and livelihoods of more than 80 percent of Cambodia's population of 14 million. Rice cultivation is pursued by more than 70% of the rural population, occupies 80% of the available arable land, and is the staple grain of Cambodia. During the current decade rice production per capita has grown by 8.7% per year rising from 339kg in 2000 to 535kg in 2008. Total production of paddy is now more than six million tons per year. This is not only sufficient to meet the rice needs of the population, but also allows for the export of more than 2-3 million tons per year. Additionally, farmers produce a variety of vegetables and seasonal fruits to supplement diets, but less so to augment their income. In 2007, rice represented approximately 68% of total caloric intake per capita and is also the cheapest and most available food.

Cambodia is still a low-income food deficit country with 40% of the population living below the poverty line and 10% of the population living in extreme poverty. Achieving food security requires availability and access to sufficient food at all times to meet dietary needs. In Cambodia, most poor attempt to produce sufficient food to meet their dietary needs but generally fall short. Some of the main constraints food-insecure households face is fragmented and small farm sizes often less than 0.5 hectares, limited access to irrigation and greater reliance on rain-fed agriculture, low crop yields, and unavailability of affordable agriculture-related financial products. The Contractor shall enhance agricultural input and production systems, ensure the adoption of improved seed and germplasm material, modern cultivation techniques, and the diversification of cropping and farming systems.

## COMPONENT 2: Increased Food Access through Rural Income Diversification

Food access signifies the ability to purchase food to supplement home production with cash income generated through economic activities. Even though most rural Cambodians depend on their small holdings to produce enough food for their households, many can produce only enough food to meet their basic needs. As a result, farmers must supplement their food production through purchases in the market. For the poorest 40% of rural households, the cash value share of home-produced food was 33-36 percent while the cash value share of purchased food was 64-67 percent.<sup>21</sup>

Given that most sources of income stem from the informal sector which is characterized by low pay and sporadic employment opportunities, many families find it difficult to meet their basic food needs, with 34.7% of households living below the consumption poverty line.<sup>22</sup> Beyond this, poor households often face other constraints that limit their access to food including, insufficient cash income to purchase food, high food prices, limited employment opportunities especially in off-farm and non-agricultural sectors, poor marketing and distribution systems, and a degraded or non-existent infrastructure to support market activities.

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<sup>21</sup> Council for Agriculture and Rural Development. "Strategic Framework for Food Security and Nutrition in Cambodia 2008-2012." May 2008 p. 33

<sup>22</sup> Ibid p. 5

The Contractor shall strengthen post harvest systems, improve market access for producers and build linkages among different members of the supply chain, expand off-farm income generation, and make targeted investments in marketing infrastructure.

**Special Note on Nutrition:** The Contractor shall incorporate nutrition into program activities when logical and where synergies exist as another key focus of this program objective. Such illustrative ideas include combination of technical assistance and nutrition education programs where appropriate, providing nutritional information as part of branding and marketing activities, investigating feasibility and market demand for micronutrient fortified food products, and forming partnerships with domestic producers of fortified foods (e.g. rice, fish oils, soy milk) at prices that are affordable to the landless and ultra-poor.

#### COMPONENT 3 – Natural Resource Management and Resilience to Climate Change Increased

Cambodia possesses rich natural assets that are unique to Southeast Asia and are of global significance. A healthy resource base maintains the ecosystem functions essential for the agrarian livelihoods of rural Cambodians. The floodplains of the Tonle Sap constitute a distinctive and highly productive freshwater ecosystem. The seasonal flood-recession cycle deposits rich sediment that fertilizes vast flood-plains and creates seasonal habitat that sustains one of the world's most productive freshwater fisheries. The upland forests including the Cardamom Mountains and Prey Lang Forest regulate water flow to mitigate flooding and siltation and maintain dry season stream-flow feeding the Tonle Sap. Forests cover nearly 50% to 60% of Cambodia and play an important role in carbon sequestration, energy production, provision of forest products, biodiversity conservation and tourism.

However, these resources and the livelihoods they support face a number of threats. Aquatic biodiversity and fishery production are threatened by over-fishing, loss of habitat as flooded forests are converted to agriculture, and disruption of migration routes by new and planned hydro-electric dams. Ambitious plans for investment in irrigation infrastructure are being developed, but there has not been comprehensive analysis of the areas where these investments would provide the highest return, their hydrological impact, or whether soil, water quality or other constraints would limit their effectiveness in increasing food production. Cambodia has one of the highest deforestation rates in the world, driven by illegal logging, conversion to agriculture, and heavy reliance on wood for fuel. Much of the remaining forest is severely degraded.

The Contractor shall build Cambodian capacity to: analyze the status and economic value of key natural resources, improve the enabling environment for sustainable resource use and conservation, institute improved monitoring and rational management of forest, fishery, water and land resources, and increase income from sustainable products and services.

#### COMPONENT 4: Capacity of Public, Private and Civil Society to Address Food Security and Climate Change Increased

Due to two decades of civil war, Cambodian private, public and civil society institutions are characterized by relatively young professionals with limited technical and managerial experience and weak institutional capacity. Accordingly, there is limited coordination, collaboration and communication among institutions – even where complimentary objectives

are present. This limits Cambodia's ability to respond to critical development issues including food security and climate change. However, the RGC has begun devolving limited authority and financial resources to Development Councils at the provincial, district and commune level<sup>23</sup>. This presents an important opportunity to engage community groups, the private sector, and government on development activities – particularly at the commune level where councilors are elected by popular vote and clearly understand the practical realities their constituents face on a daily basis. As decentralization advances, local governments, the private sector and civil society are taking on new roles which require a significant new level of communication and coordination.

The Contractor shall support activities that strengthen local capacity to manage and resolve challenges related to food security and global climate change. Activities will be accomplished by working with and through Cambodian institutions with USAID implementing partners playing a facilitation or technical backstopping role. Efforts will aim to strengthen networks of producer groups and private sector partners; develop national capacity to conduct adaptive agricultural research and diffuse improved production technology; and formulate and implement policies to foster rational natural resources management and ecosystem functions.

### *Target Areas and Groups*

USAID/Cambodia's Feed the Future strategy targets four provinces around the Tonle Sap Lake: Battambang, Pursat, Siem Reap, and Kampong Thom. During the reporting period, HARVEST continued with activities in villages throughout Battambang and Pursat provinces, while increasing the selection of clients and implementation of activities in Siem Reap and Kampong Thom.

By September 2012, HARVEST has worked directly with a total of 8,973 lead clients with the majority on established field demonstration sites across all program areas: 7,438 agricultural clients, 400 aquaculture and fishery clients, 667 forestry clients, 285 input supply clients, 21 rice miller clients, 88 school garden clients, 57 food security and nutrition commune partner clients, and 17 microfinance institution clients.

HARVEST is partnering with 17 field-based NGOs with 217 employees that are implementing activities in all four provinces in horticulture and rice; aquaculture and fisheries; forestry and natural resource management; and nutrition. Six of these are new NGO partners based in Kampong Thom and Siem Reap.

Geographically, the program is working in 350 villages: 135 in Battambang, 88 in Pursat, 66 in Siem Reap, and 61 in Kampong Thom. Of these, 179 are FTF villages: 61 in Battambang, 57 in Pursat, 24 in Siem Reap, and 37 in Kampong Thom.

In selecting target communities, HARVEST uses data collected by the Cambodian Ministry of Planning, which is divided into two categories: ID Poor 1 (or P1, extremely poor) and ID Poor 2 (or P2, poor). Factors that determine whether a household is P1 or P2 include:

1. General condition, size, and material of the house;

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<sup>23</sup> Commune Councils are elected by popular vote with councilors then electing development councils at the district and provincial level.

2. Main source of income for the household;
3. Amount of livestock owned individually or collectively;
4. Number of family members in the household, distinguished by gender and age; and
5. Number of household members who cannot produce income due to age, health, or other factors.

Using this information, HARVEST identifies communes and villages with the greatest potential to benefit from program activities. Criteria used to select target villages across program components include:

1. Number of demographic groups – especially women, young people, or other under-represented groups – interested in working with HARVEST;
2. Location and proximity to population centers, in particular their ability to impact a high number of beneficiaries;
3. The presence of partner NGOs and their experience in the region; and
4. The presence, either current or planned, of other HARVEST program components.

Figure 1: HARVEST Results Framework

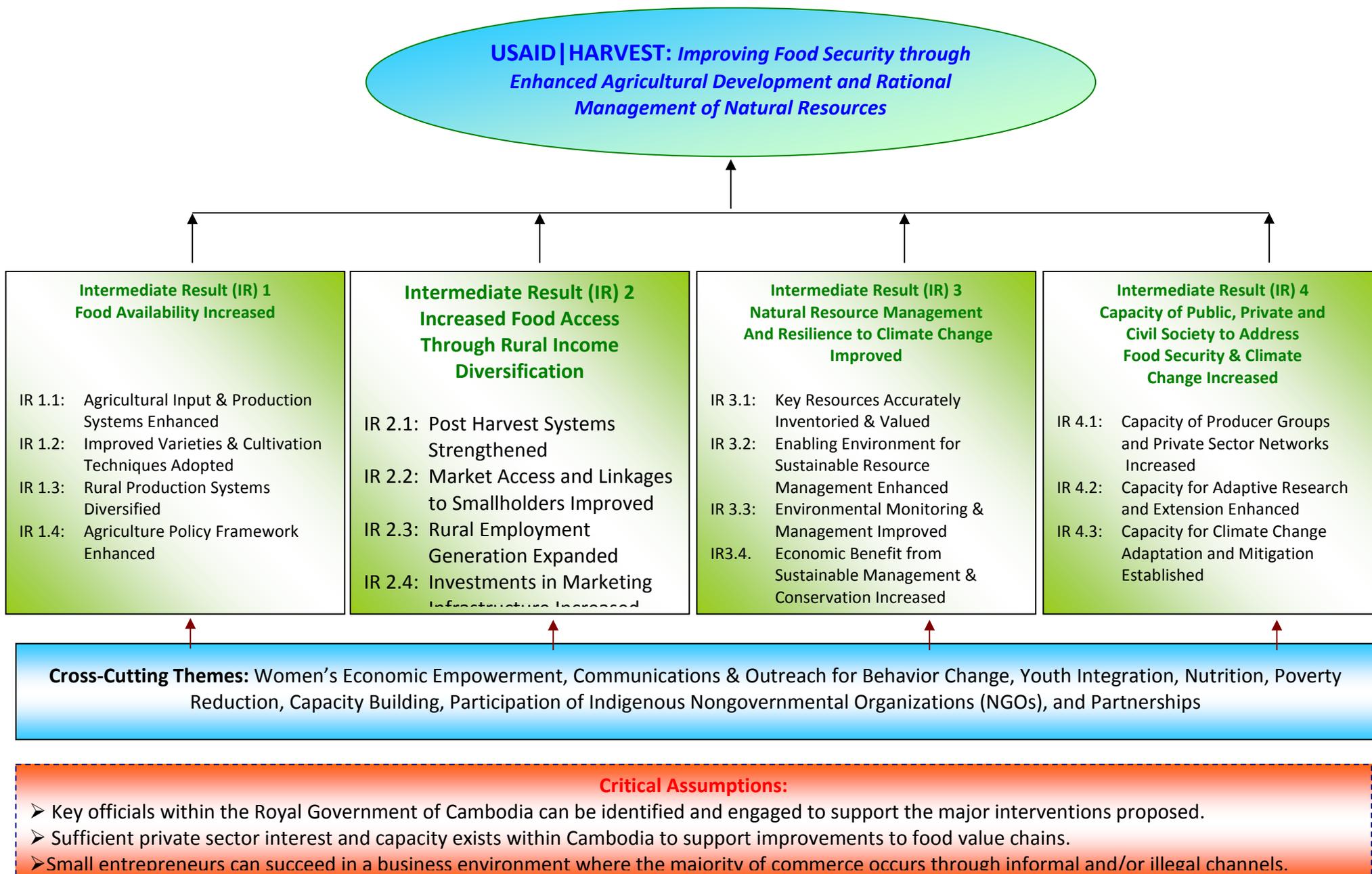


Figure 2: HARVEST Zone of Influence



Source: Harvest Project

## *Annex 2: Estimated Level of Effort, Budget and Payment Terms*

### *Level of Effort*

As illustrated in Table 2, this Mid-Term Performance Evaluation will require 282 person days in total, in which level of effort each evaluation expert is provided as follows:

Team Leader is expected to work full time (39 days maximum) during the evaluation period. The Team Leader will take the lead in communicating with team members and USAID/Cambodia to ensure that the evaluation products mentioned in section VI are delivered to USAID/Cambodia with acceptable quality and on time.

Three Technical Experts will work on part time basis when Team Leader assigns tasks to them during first and last week (week 1 and week 7). However, they will work full time from the second to sixth week. In total, each Technical Expert has 31 days maximum to complete this evaluation assignment.

Two USAID Personnel will join the evaluation team. They will perform their tasks assigned by USAID/Cambodia in consultation with the Team Leader. As other Technical Experts, each person will have 31 days maximum for this evaluation.

Four Local Evaluators are required to start working from the second week after the international experts' arrival and also finish their tasks by the end of week sixth. In total, each Local Evaluator will have 22 days maximum for this evaluation.

Table 2: Level of Effort

	LOE TOTALS	Draft evaluation plan					In-Brief Submit 1st Voucher		Meeting Partners and Fieldwork																	Present Draft Findings		Submit Draft Report		USAID Comment	Submit Final Report									
CONSULTANT/DAY	(DAY)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Team Leader	39	h	h	h	h	h	t	p	p	p	p	p	o	o	o	o	o	o	o	o	r	r	r	r	o	o	o	o	p	p	p	p	p	p	t	h	h	h	h	h
Agriculture Expert	31	h	h	h			t	p	p	p	p	p	o	o	o	o	o	o	o	o	r	r	r	r	o	o	o	o	p	p	p	t							h	h
NRM Expert	31	h	h	h			t	p	p	p	p	p	o	o	o	o	o	o	o	o	r	r	r	r	o	o	o	o	p	p	p	t							h	h
Dvl Economist	31	h	h	h			t	p	p	p	p	p	o	o	o	o	o	o	o	o	r	r	r	r	o	o	o	o	p	p	p	t							h	h
USAID Personnel1 DC *	31	h	h	h			t	p	p	p	p	p	o	o	o	o	o	o	o	o	r	r	r	r	o	o	o	o	p	p	p	t							h	h
USAID Personnel2 DC *	31	h	h	h			t	p	p	p	p	p	o	o	o	o	o	o	o	o	r	r	r	r	o	o	o	o	p	p	p	t							h	h
Local Evaluator 1	22								h	h	h	h	o	o	o	o	o	o	o	o	r	r	r	r	o	o	o	o	h	h										
Local Evaluator 2	22								h	h	h	h	o	o	o	o	o	o	o	o	r	r	r	r	o	o	o	o	h	h										
Local Evaluator 3	22								h	h	h	h	o	o	o	o	o	o	o	o	r	r	r	r	o	o	o	o	h	h										
Local Evaluator 4	22								h	h	h	h	o	o	o	o	o	o	o	o	r	r	r	r	o	o	o	o	h	h										

Note:  
h = HOME  
p = PHNOM PENH  
t = INTERNATIONAL TRAVEL  
o = OTHER PROVINCE  
r = SIEM REAP  
\* USAID/DC will fund

**Budget**

The estimated budget for this evaluation is broken down into two parts – budget under USAID/Cambodia and that for USAID/Washington Personnel TDY under USAID/Washington.

The estimated budget under USAID/Cambodia is \$185,953, of which \$139,700 is for consultants' fees and \$46,253 is for travel and other direct costs. The first voucher of 35 percent of the total amount is expected to be submitted to USAID/Cambodia in the second week of the assignment after the inception report and evaluation data collection plan is accepted by USAID/Cambodia. The rest 65 percent of the total amount is expected to be paid to the consultants when USAID/Cambodia accepts final report. The Team Leader is responsible for the submission of the vouchers for the team.

Each Local Evaluator is expected to assist the evaluation team in transportation arrangement. Therefore, they will be given extra money to cover vehicle rentals. The budget for transportation is \$8,640 for four cars for 16 days or (\$135 per day per car).

A total budget of \$1,000 will be provided to the evaluation team for other necessary expenses including photocopying and printing materials, access to data, government and related reports. Any additional costs on such expenses will be the responsibility of the team.

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## Annex B: Final Evaluation Matrix

	Sub-Questions	Themes <sup>24</sup>	Data Source	P/EE questions	NRM/Climate Change questions	Agribusiness and Aquaculture questions	Capacity Development and Management questions
1. To what extent and how has HARVEST and each of its program components met objectives and expected results per its contract, under Feed the Future, and Global Climate Change?	<p>1a. What is degree and quality of the success and effectiveness of integrating FTF and GCC activities, coordination with other USAID programs.</p> <p>1b. Have the needs of target beneficiaries (to include women, youth and minority groups) been included and have they been</p>	Relevance Effectiveness / Efficiency Impact	HARVEST FTF and GCC Plans and Reports (Qtrly, Annual, Sporadic); KIs, FGDs;	<p>1. How do results achieved and planned fit with FTF and GCC policy/strategy ?</p> <p>2. How have target beneficiaries needs been included or planned to be included? How have they been met or will be?</p>	<p>1. How well has the NRM components met the expected results per its contract?</p> <p>2. Are the objectives and expected results relevant? Do HARVEST's activities under NRM component address the priority threats to NR and THEIR drivers and the barriers to</p>	<p>1. Have expected results for production and market linkages been met?</p> <p>2. To what extent have these achievements contributed to the program objectives?</p> <p>3. To what extent do these results contribute towards the objectives of FTF and GCC?</p>	<p>1. Have numerical targets for Public, Private, &amp; Civil Society (PPCS) capacity development been met so far?</p> <p>2. Has PPCS capacity development been adequately inclusive?</p> <p>3. How and to what extent has the program leveraged / worked with</p>

<sup>24</sup> To ensure coverage within questions of the Mission's key themes, these are listed as they appear relevant for each question.

	met?				sustainable NRM?		other USAID programs?
2. Have program interventions been effective in increasing incomes and economic benefits; strengthening natural resources management and resilience to climate change; and improving the wellbeing, including food security, of targeted beneficiaries (with special consideration of women, youth, and minority groups)?	2a. Are there specific types of additional technology that are not used but can potentially be integrated into various program components to achieve objectives of the contract?	Effectiveness / Efficiency Impact	PMP, Qtrly and Annual Reports, KIIs, FGDs; RGC and other actor reports and plans	What P/EE achieved or planned results have contributed, been overlooked, been deleted, or been added relative to first column results?	<p>1. Has the program effectively improved the management of natural forests, fisheries and watersheds?</p> <p>2. Has the program increased incomes and economic benefits from the management of forests, fisheries and watersheds?</p> <p>3. Are CF and CFi supported by the program being developed as self-financing community resource</p>	<p>1. Have the results to date resulted in significant economic benefits and food security benefits to direct beneficiaries?</p> <p>2. To what extent does the development model achieve economic and food security benefits for indirect beneficiaries?</p> <p>3. Do the targeted beneficiaries adequately reflect the communities' needs in terms of income and</p>	<p>1. How and to what extent has PPCS capacity for CC mitigation and adaptation been increased?</p> <p>2. How and to what extent has PPCS capacity to support increased income generation been increased?</p> <p>3. How and to what extent has PPCS capacity to promote and maintain an improved level of nutrition been increased?</p>

					management entities? 4. Has the program improved the resilience to climate change for forests, fisheries and watersheds?	food security improvement? 4. Do program results reflect a potential for broad based enhancement of income and food security levels?	
3. To what extent and how has HARVEST and each of its program components met the priority outcomes defined under USAID's Gender Equality and Female Empowerment Policy (GEFE) and USAID's		Impact	PMP, Qtrly and Annual Reports, KIIs, FGD  GEFE and YDP plans and reports	1. Compare GEFE and YDP policies' priority outcomes with HARVEST achievements and results.  2. Does further action need to be taken and if so what?	1. How well do CF and CFi components meet these priority outcomes?  2. How well do the NTFP clients, agroforestry clients and woodlot clients meet these priority outcomes?  3. Does further action need to	1. Do the HARVEST COMPONENTs and sub COMPONENTs related to increased production and marketing reflect the GEFE and YDP priority outcomes?  2. Are there differential impacts amongst the	1. Which GEFE and YDP priority outcomes are well reflected in PPCS development? 2. What are the reasons for the level of success achieved? 3. Are the results that have been achieved endogenous to ongoing PPCS

Youth in Development Policy (YDP)?					be taken and if so what?	beneficiaries with reference to women, minority groups and the youth?  3. Are the results sustainable with regard to GEFE and YDP priorities?  4. Does further action need to be taken and if so what?	development?  4. Does further action need to be taken and if so what?
4. To what extent and how has HARVEST built the capacity of local partners (government, academia, NGOs, farms and other private sector enterprises, women,	4a. Are different types of partners benefitting differently from capacity building and, if so, why?	Impact Sustainability	PMP, Qtrly and Annual Reports, KIIs, FGDs	1. What P/EE results and plans will enhance capacities to sustain impacts?  2. What actions/changes might be justified to enhance local	1. Is HARVEST capacity building support based on a capacity needs assessment for CF, CFi, CCPF and other institutions supported?  2. Has capacity	1. To what extent has capacity development been incorporated into current interventions?  2. Is the capacity development adequate to	1. What interventions have been used to strengthen PPCS capacity?  2. Which interventions have proved most successful and why?

minority groups, etc.)?)				stakeholder capacity?	building been effective? 3. What actions/changes might be justified to enhance local capacity further?	achieve sustainability after program closure? 3. What actions/changes might be justified to enhance local capacity further?	3. Which groups have benefitted most from program interventions and why? 4. What actions/changes might be justified to enhance local capacity further?
5. What are the prospects and issues with sustainability of the results obtained by the program under each component/activity?	5a. If any results are found to be unsustainable (in the short and long term), why and are there practical adjustments that can improve the sustainability of these results during the latter half of	Sustainability Impact Future Programming	PMP, Qtrly and Annual Reports, KIIs, FGDs	1. What are prospects and issues regarding P/EE sustainability? 2. What further actions/changes might be justified to enhance sustainability?	1. Are CF and CFI being supported to be self-sustaining, self-financing institutions? 2. Are resources being managed sustainably? 3. Are mechanisms/strategies in	1. Are the improvements in production and income generation sustainable for direct beneficiaries? and for indirect beneficiaries? 2. What are the prospects of further replication of interventions	1. How sustainable are the PPCS capacity development achievements to date? 2. What programming adjustments could be made to increase the probability of sustainability?

	the HARVEST program?				place to sustain CF, CFI and household producers support institutions beyond the end of the program? 4. What actions/changes might be justified to enhance sustainability?	and benefits once program support has ended? 3. What further actions might be justified to ensure sustainability of improvements achieved to date? 4. What further actions might be required to achieve ongoing replication after program closure?	3. What level of further mentoring might be required to ensure PPCS capacity development is sustained? 4. Which institutions could be tasked to provide ongoing support where sustainability has not yet been achieved? 5. What actions/changes might be justified to enhance sustainability?
6. What is the opinion of development partners (donors, NGOs)	6a. Have development partners used aspects of HARVEST as a	Relevance Impact Effectiveness Future	PMP, Qtrly and Annual Reports, KIIs, FGDs – other actor reports	What do column 1 actors report on P/EE results and plans? Is	1. What is stakeholder opinion on HARVEST approaches for	1. How do direct beneficiaries view HARVEST impacts?	1. How is the impact of HARVEST on their own capacity

<p>and other partners (farmers and other private sector entities, government agencies, both direct beneficiaries and other community members) about the effectiveness of the HARVEST program?</p>	<p>model to replicate or scale-up through their own work (now or in future plans) and why/why not?</p>	<p>Programming</p>	<p>and plans</p>	<p>there collaboration - replication and why/why not?</p>	<p>NRM? 2. What is their opinion on HARVEST support to government counterparts?</p>	<p>2. How do indirect beneficiaries view HARVEST impacts? 3. How do potential indirect beneficiaries view HARVEST interventions? 4. How do targeted communities view HARVEST targeting and selection procedures? 5. What changes would stakeholders consider beneficial to future HARVEST programming?</p>	<p>development viewed by: Development Partners? Government Agencies? Independent Civil Society? Producer groups and traders' associations? Savings associations? Village communities? 2. How do stakeholder groups and institutions assess HARVEST targeting procedures? 3. What changes would stakeholder institutions</p>
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							consider beneficial to future HARVEST programming?
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**Annex C: List of Key Informants**

<b>Name</b>	<b>Organisation</b>	<b>Position</b>	<b>Province</b>
Reforestation in Community Forestry	CFo Chrom Kraham	Clients	Kampong Thom
Chim Chon	Action for Development (AFD)	Technician	Kampong Thom
Andrew McNaughton	Andrew McNaughton & Associates	Senior Consultant	
Chin Vuthy	Aphivat Strey	Program Manager/Liaison Officer	
Chim Nary	ATSA	Provincial Coordinator - Pursat	Pursat
Brett Ballard	AusAID	Agriculture and Rural Development Advisor	
Vorch Sokhom	Buddhism fo Developemnt	Liaison Officer	
Stuart Brown	CAMAG Consulting	Managing Director	
HUN Yadana	Cambodian Agricultural Research and Development Institute	Head of Planning and Business Collaboration Office	
OUK Makara	Cambodian Agricultural Research and Development Institute	Director	
Kim Sour	Cambodian Development Resource Institute (CDRI)	Research Associate	Phnom Penh
Chan Phirum	Cambodian Development Resource Institute (CDRI)	Research Associate	Phnom Penh
Tan Sochith	Canadia Bank PLC	Head Agriculture Department	
Peter Roggekamp	CAVAC	Team Leader	

Keam Makarady	Centre d'Etude et de Developpement Agricole Cambodien (CEDAC)	Director, Health & Environment Program	
Sim Samoeun	Centre d'Etude et de Developpement Agricole Cambodien (CEDAC)	Executive Director	
Community Fisheries	CFi Beng Tourk	Clients	Kampong Thom
Two Community Fisheries	CFi: Prek Toal and Anlong Taour	Clients	Battambang
Community Forestry ( 17 hectares)	CFo	Clients	Siem Reap
Community Forestry	CFo Chan Sar	Clients	Siem Reap
Community Forestry	CFo Opong Rong	Clients	Kampong Thom
Tree Nursery	CFo Opong Rong	Clients	Kampong Thom
Community Forestry	CFo Prey Srey Tbong	Clients	Siem Reap
Agroforestry Demo	CFO Prey Tapres	Clients	Kampong Thom
Rattan producer Group	CFo Prey Tapres	Clients	Kampong Thom
Community Forestry	CFo Prey Tapres	Client	Kampong Thom
Bunra Seng	Conservation International (CI)	Country Manager	
Toby Eastoe	Conservation International Cambodia	Site Manager	
George Dehoux	Delegation of the European Union	Attache Natural Resources Management - Rural Development	
Samreth Uth	Environmental Protection and Development Organisation	Executive Director	

Pao Samen	EPDO	Aquaculture Technician	Pursat
Uth Samrith	EPDO-Pursat	Executive Director	
Paris Chuop	FAO	Assistant FAO Representative (Programme)	
Matt Maultby	Fauna & Flora International	Technical Assistant	
Nick Suther	Fauna & FLORA International	Project Manager	
Vimol	FiA Cantonment- Pursat	Chief: Forestry Administration	
Chan Danith	Fisheries Administration	Coordinator	
Mr. Pen Bunnarith	Fisheries Administration	Chief of Provincial Fisheries Cantonment	Kampong Thom
Kaing Khim	Fisheries Administration	Deputy Director General	
Lieng Sopha	Fisheries Administration	Director of Community Fisheries	
Long Rattanakoma	Forestry Administration, Department of Community Forestry	Deputy Director	
Bun Chantrea,	HARVEST	Fisheries Zone Manager	Pursat and Battambang
Chantal Uch	HARVEST	Rice Agronomist	
Chap Piseth	HARVEST	Fisheries Zone Manager	Siem Reap and Kampong Thom
Dennis Leswick	HARVEST	Chief of Party	Phnom Penh
Edwin De Korte	HARVEST	Senior Agronomist	
Guillerm Maradiaga	HARVEST	Director Agribusiness Value Chain	
Hun Hoeung	HARVEST	Senior Field Agronomist	
Kallyan Ith	HARVEST	Monitoring and Evaluation Manager	

Kan Sieng	HARVEST	Regional Manager	
Leonard Rodgers	HARVEST	Senior Aquaculture Specialist	
M & E Staff in Battambang	HARVEST	3 Clerks & Assistant	
M & E Staff in Kampong Thom	HARVEST	Assistant	
Mouy Mann	HARVEST	Senior Field Agronomist	
Sara Duran	HARVEST	Monitoring and Evaluation Specialist	
Sean Austin	HARVEST	NRM & Biodiversity	
Sophal Chan	HARVEST	DCOP/Director Policy and Enabling Environment	
Sunsen Ek	HARVEST	Food Security/Nutrition Specialist	
Susan Novak	HARVEST	Director Social Inclusion	
Symantha Holben	HARVEST	Director of Operations	
Vann Sun	HARVEST	Forestry Zone Manager	
Sean Austin	HARVEST/Fintrac	Director of NRM	Phnom Penh
Kim Sovann	HARVEST/Fintrac	Forestry Zone Manager	Kampong Thom
Taing Vanchan	Human Resource and Rural Economic Development Organization (HURREDO)	Executive Director	
Philip Charlesworth	IDE	Agriculture Program Director	
Cheng Vannet	Intean Poalroath Rongroeurng Ltd.	Branch Manager	
Hideki Sonoyama	JICA Agricultural Productivity Promotion Project in West Tonle Sao	Project Manager	

UEDA Wataru	JICA Agriculture and Economic/Private Sector Development	Section Representative	
Chhoun Borith	Kmer Youth and Social Development Organisation	Executive Director	
Sam Oeurn Pok	Lom Orng Organization	Director	
Meas Pyseth	MAFF	Director: Department of International Cooperation	
KER Monthivuth	MAFF General Directorate of Agriculture	Director: Dept of Administration, Planning, Accounting and International Cooperation	
SO Khan Rithykun	MAFF General Directorate of Agriculture	Director General	
Pisey Oum	Ministry of Environment (MoE)	Project Coordinator	
Tang Sophat	MoWRAM	Officer, Dept of Planning & International Cooperation,	
Woodlot	Okla Dek Village	Clients	Kampong Thom
Agroforestry (Bamboo)	Opong Rong	Clients	Kampong Thom
Key Hong	O'Ta Pong commune, Bakan District, Pursat	Rice Farmer	
Vang Chorn	O'Ta Pong Commune, Bakan, Pursat	Horticulture Farmers	
Bun Veth	O'Ta Pong Commune, Bakan, Pursat	Horticulture Farmers	
Hen Hong	O'Ta Pong Commune, Bakan, Pursat	Horticulture Farmers	

Rin Rithy	O'Ta Pong Commune, Bakan, Pursat	Horticulture Farmer	
Try Ith	O'Ta Pong Commune, Bakan, Pursat	Horticulture Team Leader,	
Yim Vuth	O'Ta Pong Commune, Bakan, Pursat	Horticulture Farmers	
Chea Veth	O'Ta Pong Commune, Pursat	Horticulture Farmer in Robos Raing village	
Noun Cheum	O'Ta Pong Commune, Pursat	Horticulture Farmer in Robos Raing village	
Dy Chhunly	Ponleur Kumar	Program Manager	
Prom Bunthai	Prom Bunthai Enterprise	General Manager	
Peng Duongdara	Prom Vihear Thor	Project Coordinator	
Khoun Narin	Prom Vihear Thor (PVT)- Pursat	Executive Director,	
Heng Hong	Provincial Dept of Agriculture, (PDA Pursat)	Deputy Director	
Hip Mora	Provincial Fisheries Administration, Siem Reap	Chief: Aquaculture Section	
Lok Sokthea	READAC Cambodia	Executive Director	
Edwin V. Payuan	RECOFT	Country Programme Coordinator	Phnom Penh
Heng Da	RECOFT	CF Partnership Coordinator	Phnom Penh
Chan Ketsana	Reproductive and Child Health Alliance	Team Leader: Child Health and Nutrition	
CHAN Theory	Reproductive and Child Health Alliance	Executive Director	
Thach Ly Khann	Reproductive and Child Health Alliance	Provincial Coordinator	

Tree Nursery	Reussey Duoch Village	Clients	Kampong Thom
Woodlot	Reussey Duoch Village	Clients	Kampong Thom
Se Bunleng	Royal University of Phnom Penh, Faculty of Humanity and Land Management	Lecturer	
Tang Chhong Ngy	Sambath Vathanak	Director	
Rattan processing group	Serey Vong village	Clients	Kampong Thom
Bamboo Processing Group	Siem Reap	Clients	Siem Reap
Rattan processing group	Siem Reap	Clients	Siem Reap
Mr. Prak Marina	Siem Reap	Deputy Provincial Forestry Cantonment	Siem Reap
Saing Sophal	Siem Reap Provincial Department of Agriculture	Vice Officer of Agronomy and Agricultural Land Improvement	
Meas Sours	Sna Ansar Commune, Pursat	Aquaculture Farmer in Kraing Veng village	
Park Cham Nap	Sna Ansar Commune, Pursat	Aquaculture Farmer in Kraing Veng village	
Sim Sun	Sna Ansar Commune, Pursat	Aquaculture Farmer in Kraing Veng village	
Sorn Seng	Sna Ansar Commune, Pursat	Aquaculture Farmer in Kraing Veng village	
Gnoeup Sakoeun	Thaneakea Phum Cambodia Ltd.	Regional Manager	
Touch Visalsok	University of Battambang	President	
William Bradley	USAID/CAMBODIA	Agricultural Officer	Phnom Penh

Brett Arsenal	USAID/CAMBODIA	Environmental Officer	Phnom Penh
Sak Sambath	USAID/CAMBODIA	Senior Economist	Phnom Penh
Tohn Mok	USAID/CAMBODIA	Development Assistant	Phnom Penh
Sok Sophat	VSG	Liaison Officer	
Sun Visal	WCS	Senior Project Officer	Prek Toal
Simon Mahood	WCS	Technical Advisor	Siem Reap

## Annex D: MTPE Evaluation of two high-level standard indicators used by HARVEST for the NRM component

### First Indicator:

- a. **Name of Indicator:** Number of hectares in areas of biological significance under improved management as a result of USG assistance.
- b. **Precise Definition(s)** (taken from page 58 of the December 2012 HARVEST PMP) : —Improved Management includes activities that promote enhanced management of natural resources for the objective of conserving biodiversity in areas that are identified as biologically significant through national, regional, or global priority-setting processes. Management should be guided by a stakeholder-endorsed process following principles of sustainable NRM and conservation, improved human and institutional capacity for sustainable NRM and conservation, access to better information for decision-making, and/or adoption of sustainable NRM and conservation practices.
- c. MTPE evaluation of this indicator:
  - i. The term “biological significance” appears to be wide open to interpretation. The national, regional or global priority-setting processes probably won’t use the precise term “Biological significance” leaving USAID administrators and program staff to make their own determination of what they think it means, or, worse, to come up with their own interpretation based on what is advantageous to them.
  - ii. The definition states, “Improved Management includes activities that promote enhanced management of natural resources...” This definition states that one does not need to actually improve management – one only needs to undertake activities that “promote enhanced management”. This definition renders the indicator trivial and largely devoid of any useful meaning.

### Second Indicator

- a. **Name of Indicator:** Number of people with increased economic benefits derived from sustainable natural resource management and conservation as a result of USG assistance
- b. **Precise Definition(s):** This indicator measures the success of NRM/conservation efforts to engage civil society in sustainable income generating activities with limited negative impact on fragile ecosystems. Increased economic benefits include: increased household income, average increase in income per household,

number of new enterprises developed (including but not limited to fisheries, sustainable tourism, forestry/agroforestry, sustainable agriculture, microenterprise, etc.), economic benefits from ecosystem services, etc. Economic benefits may be based on actual cash transactions or other economic value of natural resources.

Note: Assumes improved NRM practices on beneficiary farms is included, average household size of 4.7 persons.

- c. MTPE evaluation of this Indicator:
- i. This definition states that an increased economic benefit of fisheries management is fisheries. An increased economic benefit of forest management is forestry. According to this, all Cambodians who are member of a CF or a CFi, are realizing increased economic benefits, even though the law makes it illegal for them to sell the fish or the NTFP or the wood products produced by the resources they manage.
  - ii. Sustainable natural resource management is a very imprecise term. Opinions as to what should qualify as “sustainable” vary widely. How is a USAID administrator to know whether a NRM activity is “sustainable” or not?
  - iii. The “Note” states that it is assumed that improved NRM practices on beneficiary farms are included. Here, USAID changed the very definition of NRM. Agriculture is not normally included under natural resources or natural resource management. Most state governments in the US have a “Department of Natural Resources” or DNR. Agriculture is not the responsibility of a DNR. Agriculture is covered the Department of Agriculture. But under the definition of this indicator, agricultural practices can be counted as NRM.

## Annex E: Policy Table

<i>Rationale (Issues/Obstacles/Constraints)</i>	<i>Objectives/Strategy</i>	<i>Policy Area/References / Donors</i>	<i>Actions/Measures</i>	<i>Targets/Indicators</i>	<i>Status as of 26 July 2013</i>
<p><i>Donor and implementing partners' review of the draft Law on Aquaculture indicates that as currently written it will negatively impact small and medium family farms and businesses, unless revised significantly. It is urgent to promote aquaculture because freshwater, capture fisheries are now close to maximum, while the population keeps rising, adding pressure on wild fisheries, and erosion of the</i></p>	<p><i>Broad Objective: Promote the production of fish, which is the main source of protein for Cambodians. Widely available and affordable fish enhance the food security and nutrition status of Cambodian poor.</i></p> <p><i>Promote land and resource tenure policies that clarify and strengthen rights of users along the production continuum recognizing the importance to vulnerable group to stimulate an array</i></p>	<p><i>1) Policy and regulations on aquaculture</i></p> <p><i>References:</i></p> <ul style="list-style-type: none"> <li><i>- Assistance provided by USAID through MSME Program on drafting Law of Aquaculture</i></li> <li><i>- Meetings with Fisheries Administration (Dec. 5, 2012)</i></li> <li><i>- Strategic Planning for Fisheries 2010-2019</i></li> </ul> <p><i>Donors:</i></p>	<p><i>Actions:</i></p> <p><i>1) Assist the Cambodian government in the process of revising the draft Law on Aquaculture in order to ensure that the law will promote Cambodia's private sector aquaculture industry and ensure the use of technologies by the private sector do not negatively impact the biodiversity of the country.</i></p> <p><i>2) Develop policies and regulations to improve management approaches to</i></p>	<ul style="list-style-type: none"> <li><i>• Formal request for assistance from USAID made by Cambodian authority by Jan. 31, 2013</i></li> <li><i>• Technical assistants procured by Cambodia HARVEST Program by March 31, 2013</i></li> <li><i>• Analysis of chemicals used in fish ponds completed by Aug. 2013</i></li> <li><i>• Draft law on Aquaculture reviewed by technical experts by May 2013</i></li> </ul>	<p><i>Dropped in March 2013 as Fisheries Administration opted for EU Assistance provided without demanding formal request from FiA.</i></p> <p><i>HARVEST needed a formal request letter, which FiA kept promising for many weeks but in the process they took an offer from EU.</i></p> <p><i>This was reported to USAID Cambodia on April 24th 2013.</i></p>

<p><i>natural ecosystem habitat. Meanwhile various imported chemicals have been applied in aquaculture ponds but they are not known to the authorities. It is therefore important to study such chemicals, their potential impact on fish and consumers, and address the matters in the Law on Aquaculture as well as formulating a policy on aquaculture.</i></p>	<p><i>of investments in agricultural income-generating assets.</i></p> <p><i>Specific objective: Establish and implement new policy and regulations on aquaculture, which improves sustainable production and promotes natural resources management</i></p>	<p><i>- USAID through MSME Program (already completed)</i></p> <p><i>- No other donors have pledged support as of Dec. 2012</i></p>	<p><i>enhance the productivity of capture fisheries while maintaining the resources biodiversity.</i></p> <p><i>Measures:</i></p> <p><i>1) The U.S.G. assists the Cambodian Ministry of Agriculture, Forestry, and Fisheries (MAFF), Fisheries Administration to review the draft Law on Aquaculture. USAID will assist the Cambodian government to organize public consultations around the draft law.</i></p> <p><i>2) The U.S.G. will provide additional analysis and support to the policies and regulations on</i></p>	<ul style="list-style-type: none"> <li><i>• Public consultations are held about the draft law by July 2013</i></li> <li><i>• Final revised draft law incorporates public comments and sent to the legislature for review by December 2013</i></li> <li><i>• The improved law on Aquaculture is passed by mid 2014</i></li> <li><i>• Draft policy on aquaculture completed by end 2013</i></li> <li><i>• Regulations on capture fisheries are prepared and issued by end 2014.</i></li> </ul>	
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			<i>aquaculture and capture fisheries upon request from the Cambodian government.</i>		
<p><i>Most farmers in Cambodia are micro in nature, holding less than one hectare of farmland. It is important that they join cooperatives in order to reduce transactions costs in receiving technical assistance/technologies, procuring inputs, and selling their products.</i></p> <p><i>It is difficult for the Cambodian government to develop sound business-based farmer cooperatives and/or associations because of the lack of a legal framework and</i></p>	<p><i>Broad Objective: Promote the gains from networking and economies of scales to be accrued to micro and small farmers in Cambodia, thereby enhancing their incomes, food security and nutritional status.</i></p> <p><i>Cooperatives are expected to reduce transaction costs and thereby increase competitiveness of smallholders. This will stimulate more investment in agriculture and generate more employment for landless poor,</i></p>	<p><i>2) National Policy on Agricultural Cooperatives</i></p> <p><i>References:</i></p> <ul style="list-style-type: none"> <li><i>- Meeting with Department of Agricultural Extension (Dec. 5, 2012)</i></li> <li><i>- Agriculture Policy Workshop (Oct. 19, 2012)</i></li> <li><i>- Policy Paper on the Promotion of Paddy Production and Rice Export (2010)</i></li> <li><i>- Action Plan for Implementing Policy Paper on the Promotion of Paddy Production and Rice Export (2011)</i></li> <li><i>- Strategic Plan for Agricultural Sector Development 2009-</i></li> </ul>	<p><i>Actions:</i></p> <p><i>Assist the Royal Government of Cambodia in formulating the National Policy on Agricultural Cooperatives, in line with the Law on Agricultural Cooperatives expected to be passed by mid 2013. This will be carried out in a participatory and coordinated manner.</i></p> <p><i>Measures:</i></p> <p><i>1) In close cooperation with key partners, the U.S. government will provide technical assistants</i></p>	<ul style="list-style-type: none"> <li><i>• Formal request for assistance from USAID made by Cambodian authority by January 31, 2013</i></li> <li><i>• Technical assistants procured by Cambodia HARVEST Program by April 30, 2013</i></li> <li><i>• National Policy on Agriculture Cooperatives drafted in participatory way by November 31, 2013</i> <ul style="list-style-type: none"> <li><i>- Public consultations held to discuss the revised draft law.</i></li> <li><i>- Inputs from the public consultations</i></li> </ul> </li> </ul>	<p><i>This is now delayed till Feb. 2014 due to lack of budget.</i></p> <p><i>It took the General Directorate of Agriculture five months to write a formal letter of request for assistance in preparing the national policy and regulations under the law on agricultural cooperatives. It was partly because the law was just passed in June 2013.</i></p> <p><i>The request was received in June 2013 (signed on June 5, 2013)</i></p>

<p><i>policy.</i></p> <p><i>As of December 2012, the draft law on agricultural cooperatives, having undergone several rounds of revision, is expected to be endorsed by RGC. Then, the law is expected to be passed by the National Assembly and Senate by mid 2013.</i></p> <p><i>A national policy to develop agricultural cooperatives shall be formulated to reinforce the law on agricultural cooperatives.</i></p>	<p><i>among others.</i></p>	<p><b>2013</b> - <i>Strategy for Agriculture and Water 2010-2013</i></p> <p><b>Donors:</b> - <i>ADB could be a partner</i></p>	<p><i>to draft the development of the National Policy on Agricultural Cooperatives.</i></p> <p><i>2) The U.S.G. continues to provide support for public discussions of the National Policy on Agricultural Cooperatives.</i></p>	<p><i>incorporated in revised draft law.</i></p> <ul style="list-style-type: none"> <li>• <i>National Policy on Agriculture Cooperatives adopted by MAFF by March 31, 2013</i></li> <li>• <i>National Policy on Agriculture Cooperatives implemented by June 2013.</i></li> </ul>	
<p><i>The existing system of food control in Cambodia is complex. Multiple laws and regulations have been created</i></p>	<p><b>Broad Objective:</b> <i>Enhance the quality and safety of agricultural products, which minimize the health risks of consumers.</i></p>	<p><b>3) Law on Quality and Safety of Agricultural Products</b></p> <p><b>References:</b></p>	<p><b>Actions:</b> <i>Assist MAFF's Department of Agro Industry to develop the law on safety and quality of agricultural</i></p>	<ul style="list-style-type: none"> <li>• <i>Formal request for assistance from USAID made by Cambodian authority by March 31, 2012</i></li> </ul>	<p><i>- First draft competed in September 2012</i></p> <p><i>- Third round of consultant trip in May/June 2013</i></p>

<p><i>without appropriate coordination and consultation, which has led to an overlap in roles and responsibilities among various ministries. To enhance coordination of the inspection of quality and safety of products and services, an inter-ministerial Prakas (Proclamation) was created in 2010 setting up institutional mechanisms for facilitating and coordinating activities from five ministries related to food safety. But it has not been implemented due to the lack of coordination and weak nature of the document.</i></p>	<p><i>Specific Objectives: Establish the legal framework and institutional capacity to address international obligations for a fully functional SPS regime by improving science based harmonization of SPS regimes, promoting legal reforms, and building human and institutional capacity to manage safe food production and handling.</i></p>	<p><i>- Meeting with Department of Agro Industry (January 2012)</i></p> <p><i>- Agriculture Policy Workshop (Oct. 19, 2012)</i></p> <p><i>- Strategic Plan for Agricultural Sector Development 2009-2013</i></p> <p><i>- Strategy for Agriculture and Water 2010-2013</i></p> <p><i>Donors:</i></p> <p><i>- No other donors have pledged support as of Dec. 2012</i></p>	<p><i>products</i></p> <p><i>Measures:</i></p> <p><i>1) Assist MAFF to disseminate the recent law on management of pesticide and fertilizer to stakeholders</i></p> <p><i>2) Provide TA and training to the Cambodian government and private sector to better understand the roles for setting, disseminating, updating, and implementing regulations for food safety.</i></p>	<ul style="list-style-type: none"> <li><i>• Technical assistant procured by Cambodia HARVEST Program by May 31, 2012</i></li> <li><i>• Law on management of pesticide and fertilizer disseminated at national and provincial level by Nov. 2012</i></li> <li><i>• Draft Law on safety and quality of agricultural products developed by September 2012</i></li> <li><i>• Draft Law on safety and quality of agricultural products is discussed in public consultations by June 2013</i></li> <li><i>• Draft Law on safety and quality of</i></li> </ul>	<p><i>- Draft for public consultation by December 2013</i></p>
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<p><b><i>MAFF's role is for safe food practices at primary production through processing. It has been drafting a law on quality and safety of agricultural products with assistance from USAID through Cambodia HARVEST Program</i></b></p>				<p><b><i>agricultural products adopted by Cambodian government by mid 2014</i></b></p> <ul style="list-style-type: none"> <li><b><i>• Law on safety and quality of agricultural products passed by National Assembly and Senate by end 2014</i></b></li> <li><b><i>• Technical and institutional capacity related to food safety and quality improved by December 2013</i></b></li> </ul>	
<p><b><i>There is acute need for domestically produced, certified rice seed as well as a legal framework that fosters quality rice seed distribution systems.</i></b></p> <p><b><i>Cambodia Seed</i></b></p>	<p><b><i>Broad Objective: Promote the private sector to develop, commercialize and use improved inputs to increase smallholder productivity and incomes, thereby increasing</i></b></p>	<p><b><i>4) Rice Seed Strategic Plan</i></b></p> <p><b><i>References:</i></b></p> <ul style="list-style-type: none"> <li><b><i>- Meeting with Department of Rice Crop (Dec. 5, 2012)</i></b></li> <li><b><i>- Agriculture Policy Workshop (Oct. 19,</i></b></li> </ul>	<p><b><i>Actions:</i></b></p> <ul style="list-style-type: none"> <li><b><i>- Finalize Cambodia Seed Policy developed by FAO/EU Food Security Program</i></b></li> <li><b><i>- Establish national seed standards and the mechanism to certify them</i></b></li> </ul>	<ul style="list-style-type: none"> <li><b><i>• Formal request for assistance from USAID made by Cambodian authority by Jan. 31, 2013</i></b></li> <li><b><i>• Technical assistants procured by Cambodia</i></b></li> </ul>	<ul style="list-style-type: none"> <li><b><i>- STTA being prepared and two local consultants are expected to start in September 2013</i></b></li> <li><b><i>- It took a long time to find consultants, while government counterparts also</i></b></li> </ul>

<p><b>Policy, formulated with assistance of FAO and USAID, is expected to be adopted by MAFF by March 31, 2013. This will provide policy direction aiming at increasing production and farmers' accessibility to quality seeds.</b></p> <p><b>Rice is by far the largest commodity in Cambodia and stable food crop for all Cambodians. However, the rice industry is constrained by the lack of quality seeds, especially when it seeks to improve productivity and increase value for both consumption and export. While the surplus (about 4</b></p>	<p><b>availability of food for domestic consumption and income generation.</b></p> <p><b>Quality seeds will enhance the value of the rice surplus that generates more income by various actors along the value chains such as input suppliers, millers, transporters, creditors, and exporters.</b></p> <p><b>Specific Objectives:</b></p> <ul style="list-style-type: none"> <li>- Increase access to the high yield varieties and high yielding Cambodian rice germplasm through widely available seed stocks,</li> <li>- Facilitate the distribution of improved seed varieties (including</li> </ul>	<p><b>2012)</b></p> <ul style="list-style-type: none"> <li>- Policy Paper on the Promotion of Paddy Production and Rice Export (2010)</li> <li>- Action Plan for Implementing Policy Paper on the Promotion of Paddy Production and Rice Export (2011)</li> <li>- Strategic Plan for Agricultural Sector Development 2009-2013</li> <li>- Strategy for Agriculture and Water 2010-2013</li> </ul> <p><b>Donors:</b></p> <ul style="list-style-type: none"> <li>- No other donors have pledged support as of Dec. 2012</li> </ul>	<ul style="list-style-type: none"> <li>- Formulate Rice Seed Strategic Plan that is action oriented and address the obstacles to increasing farmer's access to quality rice seeds</li> </ul> <p><b>Measures:</b></p> <p><b>The USG will support the Cambodian government to: 1) enable farmers and private sector to produce and disseminate prioritized rice varieties, 2) prepare the legal frameworks and mechanisms to promote quality domestic rice seed production and distribution</b></p>	<p><b>HARVEST Program by June 30, 2013</b></p> <ul style="list-style-type: none"> <li>• Drafts of Cambodia Seed Policy, National Seed Standards, and Prakas on Procedure to Certify Seeds finalized by January 31, 2013</li> <li>• Technical assistants to draft Rice Seed Strategic Plan procured by HARVEST by March 31, 2013</li> <li>• Draft Rice Seed Strategic Plan is discussed in public consultations by October 31, 2013</li> <li>• Rice Seed Strategic Plan adopted by MAFF by Jan. 31, 2014</li> <li>• Rice Seed Strategic Plan implemented</li> </ul>	<p><b>busy with elections.</b></p>
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<p><i>million tons of paddy per year) is significant, farmers are forced to retain paddy grain for seed for many generations as the quality seeds are either absent or unaffordable due to the high costs and meager volume.</i></p>	<p><i>imported ones) by local seed producers and distributors.</i></p>			<p><i>by MAFF by March 31, 2014</i></p> <ul style="list-style-type: none"> <li>• <i>Production and distribution of improved seed varieties by local seed producers and distributors facilitated improved significantly by December 31, 2014</i></li> </ul>	
<p><i>The state of agricultural extension in Cambodia is patchy. The public sector is doing less due to less support, and different donor programs do different things while the majority of smallholding farmers are left without extension services. As a result, Cambodia's agricultural productivity in</i></p>	<p><i>Broad Objective: Improve productivity of small farms through technology transfer from national level and various donor programs to smallholders. This will increase food production, food security and income.</i></p> <p><i>Ensure sustainable extension systems and that the majority of farmers will have access to</i></p>	<p><i>5) Agricultural Extension Policy</i></p> <p><i>References:</i></p> <ul style="list-style-type: none"> <li>- <i>Meeting with Department of Agricultural Extension (Dec. 6, 2012)</i></li> <li>- <i>Agriculture Policy Workshop (Oct. 19, 2012)</i></li> <li>- <i>Policy Paper on the Promotion of Paddy Production and Rice Export (2010)</i></li> <li>- <i>Action Plan for Implementing Policy</i></li> </ul>	<p><i>Actions:</i></p> <p><i>Assist MAFF in formulating an agricultural extension policy aiming at establishing a sustainable national system of technology transfer to smallholders.</i></p> <p><i>Measures:</i></p> <ul style="list-style-type: none"> <li>- <i>Review the past and current practices of extension service delivery</i></li> <li>- <i>Widely consult</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Formal request for assistance from USAID made by Cambodian authority by January 31, 2013</i></li> <li>• <i>Technical assistants procured by Cambodia HARVEST Program by May 31, 2013</i></li> <li>• <i>Review of Agricultural Extension Practices completed by September 30, 2013</i></li> </ul>	<p><i>It took the General Directorate of Agriculture five months to write a formal letter of request for assistance in preparing the National Agricultural Extension Policy. It was partly because the law was just passed in June 2013.</i></p> <p><i>The request was received in June 2013 (signed on</i></p>

<p><i>general is among the lowest in the region.</i></p> <p><i>ADB produced a document called Cambodia Agricultural Research and Extension Policy Statement in 1998 and AusAID provided a paper called Guidelines for the Cambodian Agricultural Extension System in 2000 during its heavy support of the sector. Since then there have been do strategy or policy documents on agricultural extension in Cambodia.</i></p> <p><i>The role of the state, the private sector and various development</i></p>	<p><i>reliable agricultural extension provided by either the state or non-state sector.</i></p> <p><i>The Agricultural Extension Policy will set up guidelines and define roles for different actors (public sector, private sector and development partners) and provide directions for institutional system development at both the national and sub-national levels.</i></p>	<p><i>Paper on the Promotion of Paddy Production and Rice Export (2011)</i></p> <p><i>- Strategic Plan for Agricultural Sector Development 2009-2013</i></p> <p><i>- Strategy for Agriculture and Water 2010-2013</i></p> <p><i>Donors:</i></p> <p><i>- No other donors have pledged support as of Dec. 2012</i></p>	<p><i>stakeholders in defining the role of actor involved in agricultural service delivery</i></p> <p><i>- Explain the important role of the Cambodian government in establishing a widely accessible public agricultural extension service complementary to the private sector.</i></p>	<ul style="list-style-type: none"> <li>• <i>Draft Agricultural Extension Policy in participatory manner by March 31, 2014</i> <ul style="list-style-type: none"> <li>- <i>Public consultations held to discuss the revised draft policy.</i></li> <li>- <i>Inputs from the public consultations incorporated in revised draft policy.</i></li> </ul> </li> <li>• <i>Agricultural Extension Policy adopted by MAFF by July 31, 2014</i></li> <li>• <i>Implementation of Agricultural Extension Policy by December 2014.</i></li> </ul>	<p><i>June5, 2013)</i></p> <p><i>With revised budget after the recent cut, an STTA is being proposed now.</i></p>
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<p><i>partners including NGOs working on agricultural extension should be defined in an up to date policy document.</i></p>					
<p><i>There is acute need for certified seeds as well as a legal framework that fosters quality seed distribution systems. Currently, there is no seed policy or strategic framework, leaving farmers to rely heavily on their retained seeds for generations and on imported seeds in the case of horticulture, corn and other cash crops.</i></p> <p><i>Cambodia Seed Policy was formulated with assistance of</i></p>	<p><b>Broad Objective:</b> <i>Promote the private sector to develop, commercialize and use improved inputs to increase smallholder productivity and incomes, thereby increasing availability of food for domestic consumption and income generation.</i></p> <p><i>Quality seeds will enhance the value of production, thus generating more income by various actors along the value chains such as input suppliers, millers,</i></p>	<p><b>6) Seed Policy</b></p> <p><b>References:</b></p> <ul style="list-style-type: none"> <li>- Meeting with Department of Rice Crop (late 2011)</li> <li>- Policy Paper on the Promotion of Paddy Production and Rice Export (2010)</li> <li>- Action Plan for Implementing Policy Paper on the Promotion of Paddy Production and Rice Export (2011)</li> <li>- Strategic Plan for Agricultural Sector Development 2009-2013</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>- Provide STTAs to assist GDA/MAFF in reviewing and finalizing the seed policy in both Khmer and English language</li> <li>- Conduct inclusive consultative workshops to comment on the draft seed policy document</li> <li>- Finalize Cambodia Seed Policy developed by FAO/EU Food Security Program</li> </ul> <p><b>Measures:</b> <i>The USG will support the</i></p>	<ul style="list-style-type: none"> <li>• <i>Formal request for assistance from USAID made by Director General of GDA/MAFF in early 2012</i></li> <li>• <i>Technical assistants procured by Cambodia HARVEST Program by June 30, 2012</i></li> <li>• <i>First consultative workshop on November 8, 2012</i></li> <li>• <i>Second consultative workshop on December 21, 2012</i></li> <li>• <i>Draft finalized by end January 2013</i></li> </ul>	<ul style="list-style-type: none"> <li>- <i>Draft finalized by consultants and last round of comments by development partners in July 2013</i></li> <li>- <i>Ready for MAFF internal working group when the new government is in place.</i></li> </ul>

<p><b>FAO/EU Food Facility and submitted to GDA/MAFF in July 2011 as the program came to an end. The policy document is intended to provide policy direction aiming at increasing production and farmers' accessibility to quality seeds be they locally produced or imported.</b></p>	<p><b>transporters, creditors, and exporters.</b></p> <p><b>Specific Objectives:</b></p> <ul style="list-style-type: none"> <li>- Increase access to the high yield varieties and seeds through widely available seed trade and production,</li> <li>- Facilitate the distribution of improved seed varieties (including imported ones) by local seed producers and distributors.</li> </ul>	<p><b>- Strategy for Agriculture and Water 2010-2013</b></p> <p><b>Donors:</b></p> <ul style="list-style-type: none"> <li>- FAO/EU Food Facility Program drafted the seed policy but it didn't receive adequate scrutiny and revision by GDA/MAFF</li> </ul>	<p><b>Cambodian government to: 1) enable farmers and private sector to produce and disseminate prioritized seed varieties, 2) prepare the legal frameworks and mechanisms needed to promote quality domestic seed production and distribution</b></p>	<ul style="list-style-type: none"> <li>• <b>Cambodia Seed Policy adopted by MAFF by June 30, 2013</b></li> <li>• <b>Preparation of related legal framework following the seed policy such as Rice Seed Strategic Plan by December 31, 2014</b></li> </ul>	
<p><b>There is a need for certified seeds as well as a legal framework that fosters quality seed distribution systems. Currently, there are no national standards, making it impossible for the</b></p>	<p><b>Broad Objective:</b></p> <p><b>Promote the private sector to develop, commercialize and use improved inputs to increase smallholder productivity and incomes, thereby increasing</b></p>	<p><b>7) National Seed Standards</b></p> <p><b>References:</b></p> <ul style="list-style-type: none"> <li>- Meeting with Department of Rice Crop (late 2011)</li> <li>- Policy Paper on the Promotion of Paddy</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>- Provide STTAs to assist GDA/MAFF in drafting seed standards in both Khmer and English language</li> <li>- Conduct inclusive consultative workshops to</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Formal request for assistance from USAID made by Director General of GDA/MAFF in early 2012</b></li> <li>• <b>Technical assistants procured by Cambodia</b></li> </ul>	<ul style="list-style-type: none"> <li>- <b>Draft finalized by consultants by end Jan. 2013</b></li> <li>- <b>Awaits discussions and adoptions by MAFF</b></li> </ul>

<p><b>authority to certify production and handling of seeds.</b></p> <p><b>In 2008, the National Assembly and the Senate passed a National Law on Seed Management and Plant Breeder's Rights. However, the implementation has not begun due to the lack of supporting legal and technical documents.</b></p> <p><b>Among other things, seed standards are needed for the government and private sector, including farmers, to hold themselves up to.</b></p>	<p><b>availability of food for domestic consumption and income generation.</b></p> <p><b>Certified seeds will guarantee the quality of seeds and therefore enhance the value of production, thus generating more income by various actors along the value chains such as input suppliers, millers, transporters, creditors, and exporters.</b></p> <p><b>Specific Objectives:</b></p> <ul style="list-style-type: none"> <li>- Increase the production of standard seeds to expand the access to the high yield varieties and through widely available production,</li> </ul>	<p><b>Production and Rice Export (2010)</b></p> <ul style="list-style-type: none"> <li>- Action Plan for Implementing Policy Paper on the Promotion of Paddy Production and Rice Export (2011)</li> <li>- Strategic Plan for Agricultural Sector Development 2009-2013</li> <li>- Strategy for Agriculture and Water 2010-2013</li> </ul> <p><b>Donors:</b></p> <ul style="list-style-type: none"> <li>- No donors work on seed standards</li> </ul>	<p><b>comment on the draft documents</b></p> <ul style="list-style-type: none"> <li>- Finalize National Seed Standards for adoption by GDA/MAFF and implementation by the private sector</li> </ul> <p><b>Measures:</b></p> <p><b>The USG will support the Cambodian government to: 1) enable farmers and private sector to produce and disseminate standard seed varieties, 2) prepare the legal frameworks and mechanisms needed to promote quality domestic seed production and distribution</b></p>	<p><b>HARVEST Program by June 30, 2012</b></p> <ul style="list-style-type: none"> <li>• First consultative workshop on November 8, 2012</li> <li>• Second consultative workshop on December 21, 2012</li> <li>• Draft finalized by end January 2013</li> <li>• Cambodia National Seed Standards adopted by MAFF by June 30, 2013</li> <li>• Preparation of related legal framework following the seed policy such as Rice Seed Strategic Plan by December 31, 2014</li> </ul>	
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	<b>- Facilitate the distribution of improved seed varieties by local seed producers and distributors.</b>				
<p><b>There is a need for protection of plant breeders' rights in order to promote the interest among breeders, although Cambodia relies more on imported seeds rather than local seed breeders.</b></p> <p><b>In 2008, the National Assembly and the Senate passed a National Law on Seed Management and Plant Breeder's Rights. However, the implementation has not begun due to the lack of supporting legal and technical</b></p>	<p><b>Broad Objective:</b> <b>Promote the private sector to develop, commercialize and use improved inputs to increase smallholder productivity and incomes, thereby increasing availability of food for domestic consumption and income generation.</b></p> <p><b>Legal and technical frameworks on plant breeders' rights are expected to encourage plant breeders to work harder for their protected intellectual property</b></p>	<p><b>8) Plant Breeders' Rights</b></p> <p><b>References:</b></p> <ul style="list-style-type: none"> <li>- Meeting with Department of Rice Crop (late 2011)</li> <li>- Policy Paper on the Promotion of Paddy Production and Rice Export (2010)</li> <li>- Action Plan for Implementing Policy Paper on the Promotion of Paddy Production and Rice Export (2011)</li> <li>- Strategic Plan for Agricultural Sector Development 2009-2013</li> </ul>	<p><b>- Provide STTAs to assist GDA/MAFF in drafting supporting documents for plant breeders' rights in both Khmer and English language.</b></p> <p><b>These are:</b></p> <ul style="list-style-type: none"> <li>- General Introduction to Examination of Distinctness, Uniformity and Stability of New Plant Varieties,</li> <li>- Guidelines for Examination of Distinctness, Uniformity and Stability of New Plant Varieties</li> <li>- Conduct inclusive consultative workshops to</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Formal request for assistance from USAID made by Director General of GDA/MAFF in early 2012</b></li> <li>• <b>Technical assistants procured by Cambodia HARVEST Program by June 30, 2012</b></li> <li>• <b>First consultative workshop on November 8, 2012</b></li> <li>• <b>Second consultative workshop on December 21, 2012</b></li> <li>• <b>Drafts finalized by end January 2013</b></li> </ul>	<ul style="list-style-type: none"> <li>- <b>Draft finalized by consultants end Jan. 2013</b></li> <li>- <b>Awaits discussions and adoptions by MAFF</b></li> </ul>

<p><b>documents.</b></p> <p><b>Among other things, two documents are needed to implement plant breeders' rights. These are (i) General Introduction to Examination of Distinctness, Uniformity and Stability of New Plant Varieties, and (ii) Guidelines for Examination of Distinctness, Uniformity and Stability of New Plant Varieties</b></p>	<p><b>rights. Therefore, new and improved varieties will be produced for the benefits of farmers and consumers at large.</b></p>	<p><b>- Strategy for Agriculture and Water 2010-2013</b></p> <p><b>Donors:</b></p> <p><b>- No donors work on seed standards</b></p>	<p><b>comment on the draft documents</b></p>	<p><b>• The two documents adopted by GDA/MAFF by June 30, 2013</b></p>	
<p><b>Due to the monopoly and limited capacity of a sole public institute to produce foundation rice seeds, production of quality local rice seeds has been very limited. It cannot</b></p>	<p><b>Broad Objective: Promote the private sector to develop, commercialize and use improved seeds from foreign countries to increase smallholder productivity and incomes, thereby</b></p>	<p><b>9) Legal aspects of exporting Cambodian rice originating in foreign countries</b></p> <p><b>References:</b></p> <p><b>- Meeting with Department of Rice Crop (late 2011)</b></p>	<p><b>- Provide STTA to provide legal opinions on legal aspects of exporting Cambodian rice originating in foreign countries. The review includes:</b></p> <p><b>- Intellectual property rights,</b></p>	<p><b>- STTA procured in March 2012</b></p> <p><b>- Draft report submitted in June 2012</b></p> <p><b>- High-level Roundtable conducted on late June 2012 presided</b></p>	<p><b>- Study completed and high-level roundtable conducted in late 2012</b></p> <p><b>- Dissemination by March 2013</b></p>

<p><b>catch up with the growing needs of more and more farmers to adopt better seeds. Therefore, a number of farmers have adopted rice seeds developed in neighboring countries (especially Vietnam and Thailand).</b></p> <p><b>While this has been occurring and trading of produce from such seeds has been going on for a number of years, opinions are divided on whether or not this will face a problem down the road in export markets.</b></p> <p><b>The regulatory institution, MAFF, which oversees the sole rice seed</b></p>	<p><b>increasing availability of food for domestic consumption and income generation.</b></p> <p><b>Promote the openness spirit in the rice seed sector, which is called for in the Rice Production and Export Policy.</b></p> <p><b>Feed into policymaking on rice seeds adoption, dissemination and extension in the whole country, as well as in the HARVEST target provinces.</b></p> <p><b>Ultimately raise rice productivity, quality and revenue for farmers as well as other entrepreneurs along the rice value chain.</b></p>	<p><b>- Policy Paper on the Promotion of Paddy Production and Rice Export (2010)</b></p> <p><b>- Action Plan for Implementing Policy Paper on the Promotion of Paddy Production and Rice Export (2011)</b></p> <p><b>- Strategic Plan for Agricultural Sector Development 2009-2013</b></p> <p><b>- Strategy for Agriculture and Water 2010-2013</b></p> <p><b>Donors:</b></p> <p><b>- No donors work on seed standards</b></p>	<p><b>which are envisaged by the TRIPS Agreement.</b></p> <p><b>- The rules of origin (RO).</b></p> <p><b>- The TWO Framework for legal disputes on agricultural products with a special attention on rice.</b></p> <p><b>- The EU Framework and mechanism for dispute in identical rice imported into the market as EU is the main importer of Cambodian rice.</b></p>	<p><b>by the Supreme National Economic Council (SNEC)</b></p> <p><b>- Final draft delivered in August 2012</b></p> <p><b>- Wide dissemination by March 2013</b></p>	
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<p><i>research institute (called CARDI) that produces foundation seeds, is of the opinion that neighboring countries can sue Cambodia for adopting their seeds and exporting the products.</i></p>					
<p><i>There is a need to integrate biodiversity into national legislation, policies, and sectoral planning. The existing national biodiversity strategy and action plan needs updating. One of the preliminary steps toward developing an updated NBSAP is the identification and establishment of agreed-upon Biodiversity Indicators and</i></p>	<p><i>Broad Objective: Promote conservation of biodiversity in Cambodia Contribute to the updating of national biodiversity strategy and action plan</i></p>	<p><i>10) National Biodiversity Strategy and Action Plan (NBSAP)</i></p> <p><i>- Working agreement between Cambodia HARVEST and the Ministry of Environment's (MoE) General Department of Administration, Nature Conservation and Protection (GDANCP)</i></p>	<p><i>- Provide STTAs to assist GDANCP in conducting studies and consultations to develop biodiversity indicators and targets</i></p> <p><i>The main tasks of STTAs include:</i></p> <p><i>- Develop desk study to summarize relevant international &amp; national examples of biodiversity indicators and targets.</i></p> <p><i>- Formulate a Development Plan to identify</i></p>	<p><i>- STTAs procured by July 2012</i></p> <p><i>- NBSAP Technical Working Group (TWG) Meetings and Consultation Workshop held by end Aug 2012</i></p> <p><i>- Steering Committee Meeting and Final Report submission by end September 2012</i></p> <p><i>- Final report by end October 2012</i></p>	<p><i>Completed in late 2012</i></p>

<p><b>Targets for Cambodia. These indicators and targets can be challenging to develop but are critical to ensure Cambodia's progress towards an updated NBSAP and are required of Cambodia as part of its obligations as a signatory to the Convention on Biological Diversity (CBD). It is expected that these will be shared at the 12th Conference of Parties (COP) for the CBD to be held in October 2012 in India.</b></p>			<p><b>Cambodian Biodiversity Indicators &amp; Targets</b>  <b>- Develop preliminary biodiversity indicators and targets</b></p>		
<p><b>Protected areas have been stipulated on Royal Decree and Protected Area Law (2008). It requires a</b></p>	<p><b>Broad Objective: Improve the management of protected areas in Cambodia</b>  <b>The support will</b></p>	<p><b>11) National Protected Area Strategic Management Framework</b></p>	<p><b>- Provide STTA to assist the Ministry of Environment in developing National Protected Area Strategic</b></p>	<p><b>- Stakeholder engagement plan developed and implemented</b>  <b>- GDANCP</b></p>	<p><b>- STTA is undergoing</b>  <b>- Completion of STTA by end Sep. 2013</b></p>

<p><b><i>national strategic management plan to provide directions and guidance on the actual implementation.</i></b></p> <p><b><i>There is a need to balance between the economic development and biodiversity conservation goals in Protected Areas. There is also a need for guidelines and sub-decrees, sustainable funding arrangements, management planning and zoning, monitoring and reporting.</i></b></p>	<p><b><i>contribute substantially to the development of a National Protected Areas Strategic Management Plan (NPASMP), which is a regulatory instrument indicating how to implement the national protected area effectively. It will define the overall institutional arrangements and priority strategies that are required to design, manage and finance protected areas.</i></b></p>	<p><b><i>- Working agreement between Cambodia HARVEST and the Ministry of Environment's (MoE) General Department of Administration, Nature Conservation and Protection (GDANCP)</i></b></p>	<p><b><i>Management Framework</i></b></p> <p><b><i>- Specific actions include:</i></b></p> <ul style="list-style-type: none"> <li><b><i>- Develop PA strategic planning</i></b></li> <li><b><i>- Create a working group, led by GDANCP, to coordinate the development of the National Protected Areas Management Plan.</i></b></li> <li><b><i>- Undertake a stakeholder consultation (managed by GDANCP).</i></b></li> <li><b><i>- Assess the Protected Area management approaches and their status and draw lessons learnt and good practices to support the</i></b></li> </ul>	<p><b><i>working group to coordinate the development of the plan is formed and functioning</i></b></p> <ul style="list-style-type: none"> <li><b><i>- Summary report outlining existing approaches, practices and lessons learnt on Protected Area management</i></b></li> <li><b><i>- Summary report on Status of Protected Areas management developed</i></b></li> <li><b><i>- Scope, outline , roadmap for the development of Protected Areas Strategic Management Plan developed</i></b></li> <li><b><i>- National Protected Areas Strategic Management Plan developed</i></b></li> </ul>	
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			<i>development of the National Protected Areas Strategic Management Plan (technical support from consultants under the coordination of GDANCP).</i>		
<i>Community protected areas have been stipulated on decree and Protected Area Law (2008). It requires policy and guidelines for community protected areas (CPA) to be well managed and sustained.</i>  <i>There is a need to balance between the economic development and</i>	<i>Broad Objective: Improve the management of community protected areas and therefore sustainability of natural resources in Cambodia</i> <i>The policy and guidelines will define the overall institutional arrangements and priority strategies that are required to design, manage and finance community</i>	<i>12) Policy and Guidelines for Establishing Community Protected Areas</i>  <i>- Working agreement between Cambodia HARVEST and the Ministry of Environment's (MoE) General Department of Administration, Nature Conservation and Protection (GDANCP)</i>	<i>- Provide STTA to assist the Ministry of Environment in developing policy and guidelines for establishing and managing community protected areas</i>  <i>- Specific actions include:</i> <i>- Develop PA zoning guideline</i> <i>- Develop guideline for establishment Community</i>	<i>- STTA procured in 2014</i>	<i>- To begin in 2014</i>  <i>- Likely to be dropped due to lack of funding</i>

<p><b>biodiversity conservation goals in Community Protected Areas. There is also a need for developing further guidelines and sub-decrees, sustainable funding arrangements, management planning and zoning, monitoring and reporting.</b></p>	<p><b>protected areas.</b></p>		<p><b>Protected Areas</b></p> <ul style="list-style-type: none"> <li>- <b>Establish PA system management coordination body (WG, Steering Committee...)</b></li> <li>- <b>Develop policy and guideline for establishment of PA/Biodiversity Trust Fund</b></li> </ul>		
<p><b>Agro Processing in Cambodia is one of the weakest industries. However, it has ample potential given the raw produce in the country, often with good quality due to superior soil.</b></p>		<p><b>13) Policy on Agro Processing</b></p>			<p><b>- To begin in 2014</b></p> <p><b>- Likely to be dropped due to lack of funding</b></p>
<p><b>Farmers in Cambodia are paying very high interest rate (around 30%-40% p.a.) for loans from</b></p>		<p><b>14) Policy on Agriculture Credit</b></p>			<p><b>To begin in 2014</b></p> <p><b>- Likely to be dropped due to lack of funding</b></p>

<p><b><i>MFIs, banks or moneylenders. No doubt they find it very difficult to compete with farmers in Thailand or Vietnam who pay only 7% p.a. for interest rate</i></b></p>					
<p><b><i>One of the most important impediments to rice, the biggest crop in Cambodia, is its moisture content after the harvest. Many smallholders have no means to dry their produce, especially during the rainy season, and have to face a substantial reduction in price. A concrete strategy to address this problem will help the sector and smallholders considerably.</i></b></p>		<p><b><i>15) Strategy on Rice Drying</i></b></p>			<p><b><i>To begin in 2014</i></b></p>

<p><b><i>Soybean is one of the major cash crops in Cambodia. Farmers lack access to quality seeds and therefore cannot increase productivity to the level they should have. A code of practice for soybean seed production and management will help seed producers tremendously.</i></b></p>		<p><b><i>16) Code of Practice for Soybean Seed Production and Management</i></b></p>			<p><b><i>To begin in 2014</i></b></p> <p><b><i>- Likely to be dropped due to lack of funding</i></b></p>
<p><b><i>Sub-Decree on Contract Farming was adopted but needs policy and action plans to be practically implemented. The Sub-decree has a lot of weaknesses. Supporting MAFF in developing regulations below the Sub-decree can mitigate those weaknesses and assist contract</i></b></p>		<p><b><i>17) Regulations on Contract Farming</i></b></p>			<p><b><i>To begin in 2014</i></b></p> <p><b><i>- Likely to be dropped due to lack of funding</i></b></p>

<p><i>farming practices that are needed by the private sector and farmers.</i></p>					
<p><i>Horticulture is one the weakest agricultural sub-sectors in Cambodia. Most of the vegetable products consumed in Cambodia are imported from neighboring countries. HAVREST has proved that many products can be substituted efficiently by local farming. A strategic development plan drawing experiences from HARVEST and other programs could help the horticulture accelerate.</i></p>		<p><b>18) Horticulture Strategic Development Plan</b></p>			<p><b>To begin in 2014</b></p>

U.S. Agency for International Development  
US Embassy  
#1, Street 96  
Phnom Penh, Cambodia