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Strategic Review

FEED THE FUTURE

November 17, 2010

This presentation represents the preliminary strategic direction of a multi-year, whole-of-government, U.S. strategy to address food security in a Feed the Future country or region. It describes partner country progress and outlines how U.S. investments will align in support of partner country priorities. This document has not yet been approved or funded but will form the basis of a multi-year strategy in development.

- 
- **Executive Summary**
 - **Key Constraints**
 - **Problem Statement & Analysis of Underlying Causes**
 - **Country Readiness**
 - **Highest Potential Interventions**
 - **Proposed USG Engagement**
 - **Impact**
 - **Next Steps**
 - **Annex**

Executive Summary Cambodia

1 **Food security**
Reduced food insecurity for 100,000 households in rural Tonle Sap

2 **Natural resource management & GCC**
Improved ability to adapt to climate change



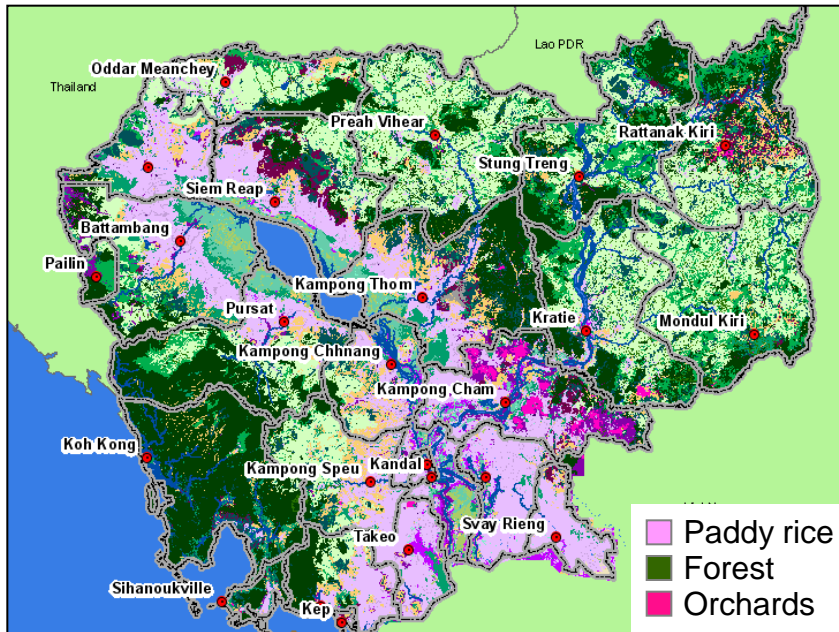
National level capacity building
3 In collaboration with RGC, improved capacity for national-level policy and research

Key constraints in Cambodia

- **Lack of available and reliable data**
- **Technical and project management capacity is low across all levels of society**
- **New field for USAID/Cambodia**
- **Weak governance**



Cambodia is a dynamic country roughly the size of Oklahoma with a population of 15 million people



Crop production concentrates around Mekong river and Tonle Sap lake

Cambodia has made significant progress since 1993...

- Average GDP growth rate 9.5% (1999-08)
- Population under \$1.25/day dropped from ~47% to ~40%
- Underweight prevalence dropped from 45% to 36% (2000-05)
- Food production (vol.) more than doubled

... and benefits from a young population.

- 70% population is <35 years old
- 80% population lives in rural areas
- 25% households are female-headed
- 70% labor force is engaged in agriculture

Cambodia suffers from both chronic and seasonal food security

82-89%

Acceptable food consumption
Food secure

- **Animal protein (meat)** is regularly consumed
- Diet sufficiently **diversified** and adequate for a healthy life

7% drop into food insecurity in lean season

Chronic food insecure

Borderline food consumption
Moderately food insecure

- **Low dietary diversity** but more frequent consumption of **fish**
- Highly **susceptible** to slide into **poor food consumption group**

11-18%

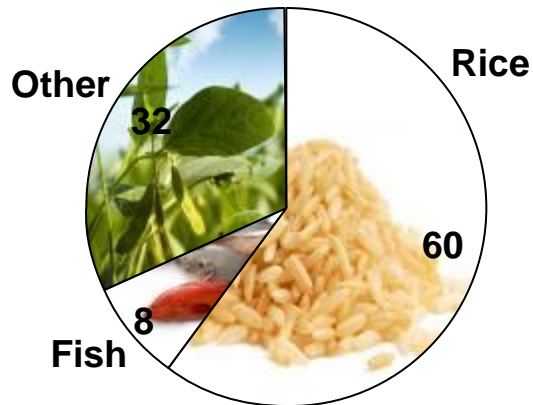
Poor food consumption
Highly food insecure

- **Rice daily; vegetables 2-3 days a week**
- **Rarely eat animal products and pulses** (sources of protein)
- Associated with **micronutrient deficiencies**, esp. children



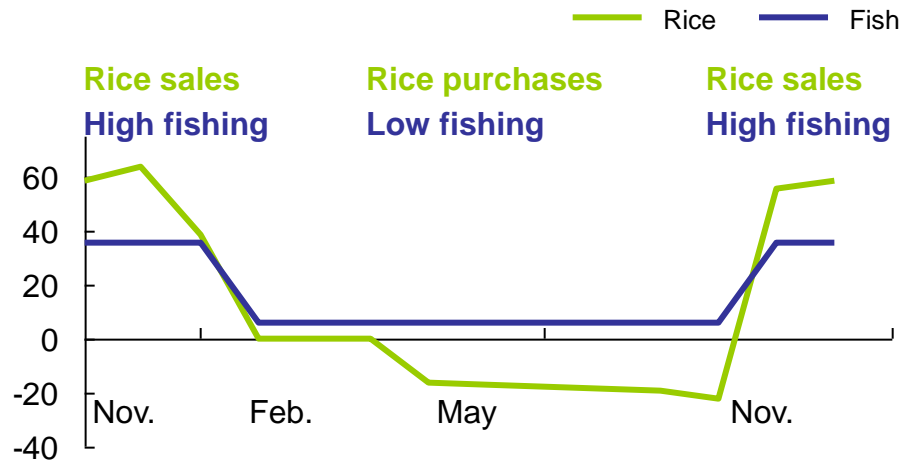
Over reliance on rice and fish for income and diet

Diet composition
% daily caloric intake



- Rice ~60%
- Fish ~8% (75% of animal protein intake)

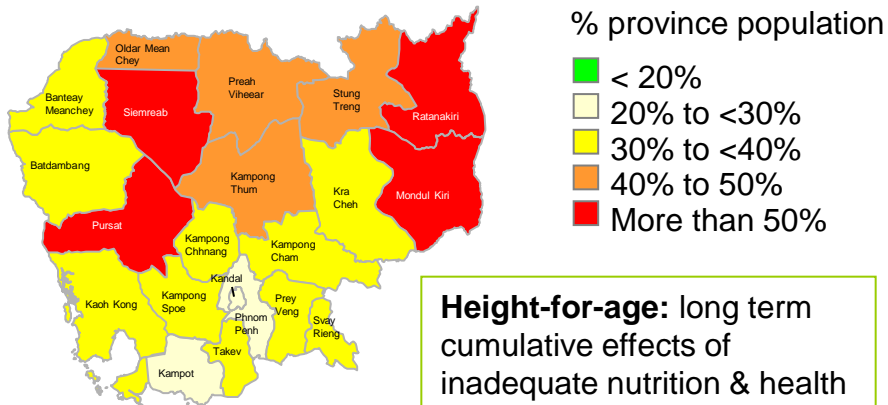
Estimated smallholder cash flow from rice & fish
US\$/month



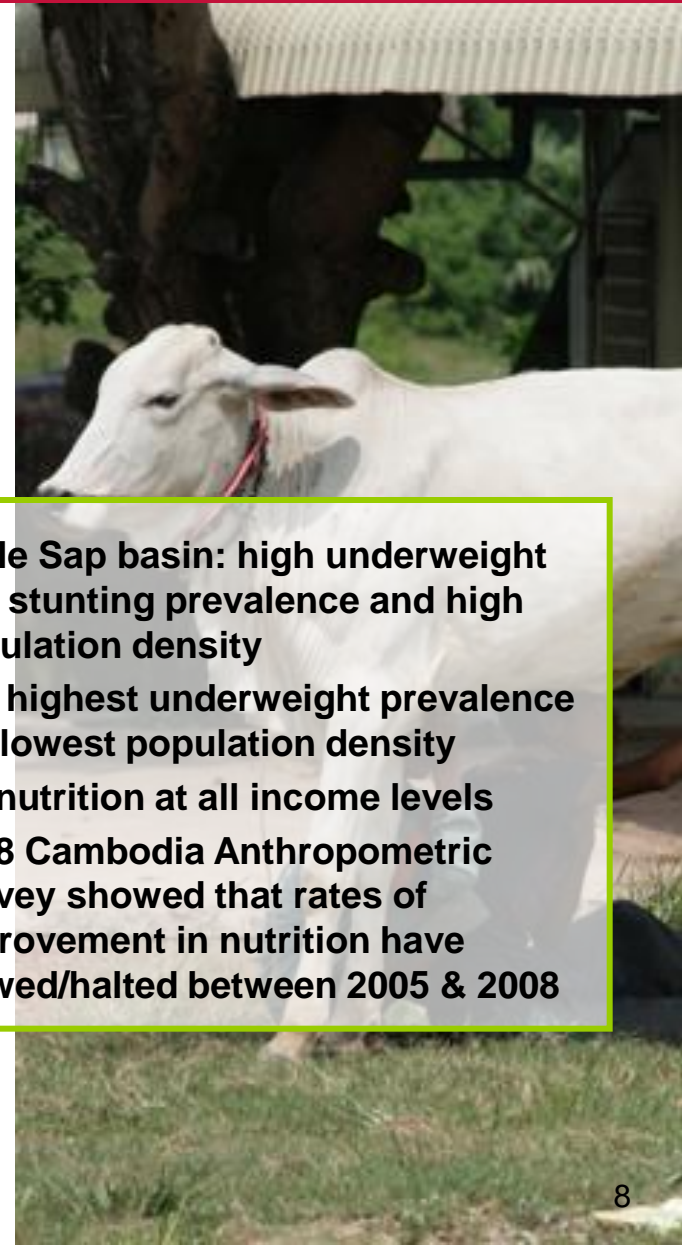
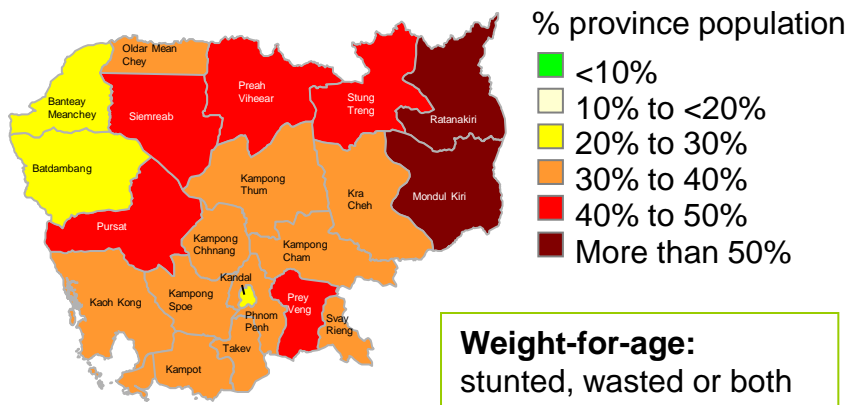
- Sell rice at low prices (lack storage, high debt) & purchase at high prices (out of stock)
- Fish income & availability parallel to rice cycle
- Few off farm income opportunities

Significant improvement in nutrition until 2005, slowed since

37% of Cambodia children <5 yrs are stunted
(down from 45% from 2000 to 2005)

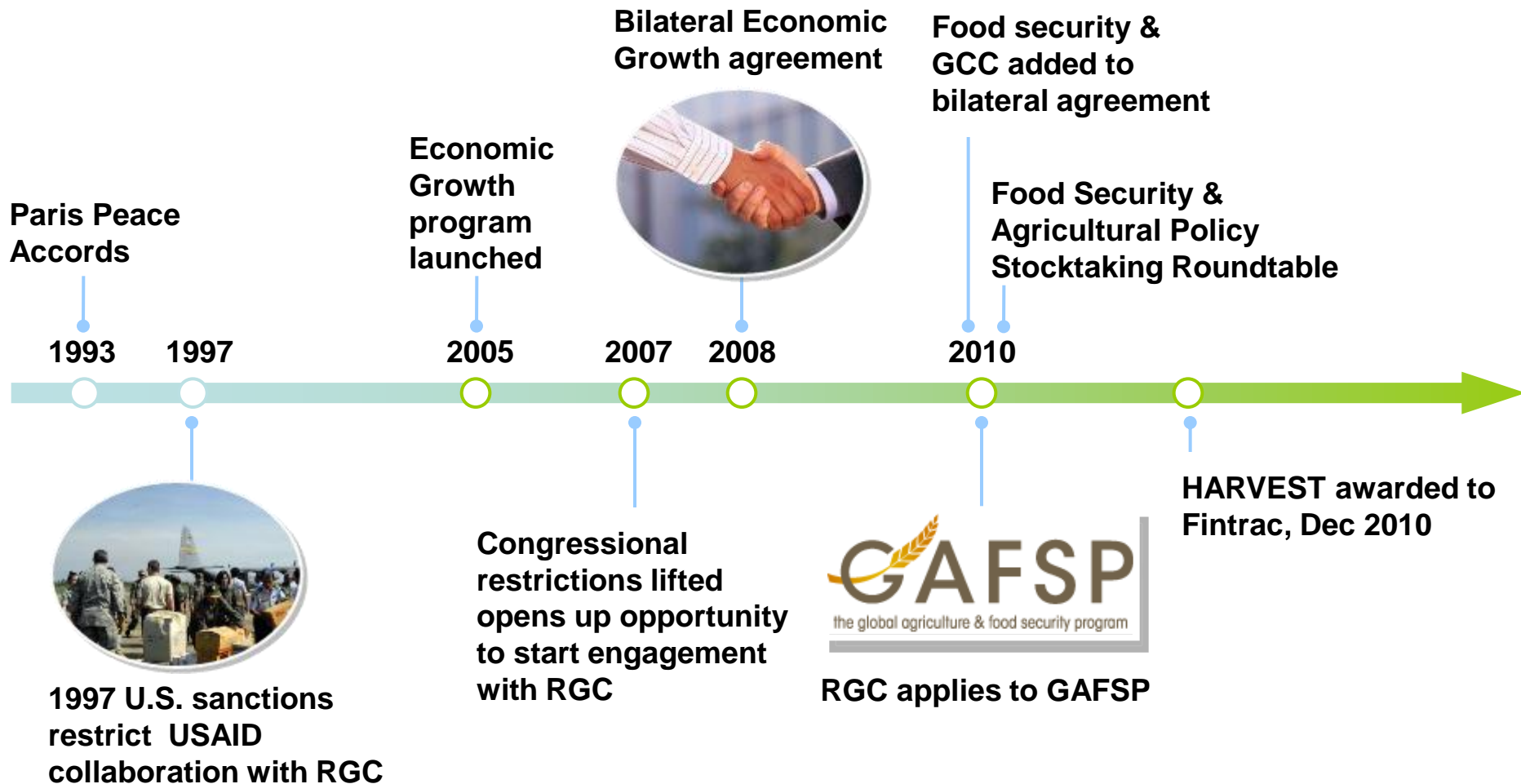


36% of Cambodian children <5 yrs are underweight
(down from 45% from 2000 to 2005)

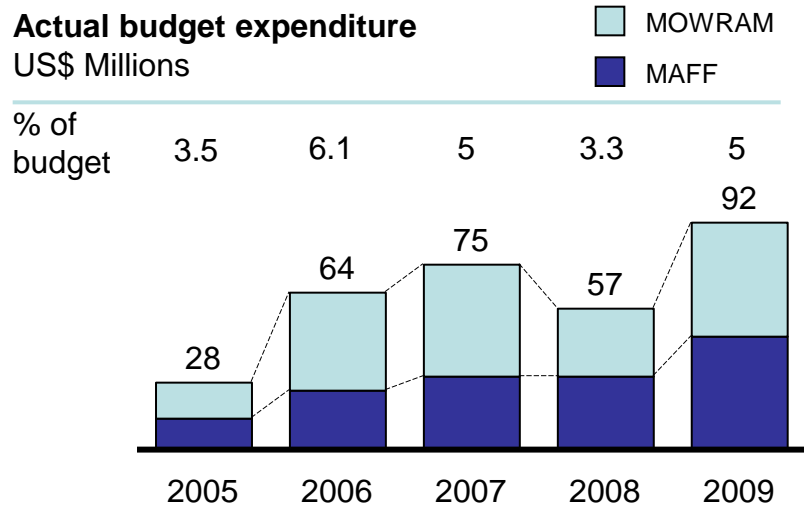


- Tonle Sap basin: high underweight and stunting prevalence and high population density
- NE: highest underweight prevalence but lowest population density
- Malnutrition at all income levels
- 2008 Cambodia Anthropometric Survey showed that rates of improvement in nutrition have slowed/halted between 2005 & 2008

Now is the time to solidify our relationship with the Royal Government of Cambodia (RGC)



RGC recognizes importance of agriculture and food security, gaps remain



RGC announced agriculture boost in 2011 budget but allocation is not clear

Progress includes:

- RGC Strategies for 1) Food Security and Nutrition and 2) Agriculture and Water
- First low income country to join WTO
- Free market environment

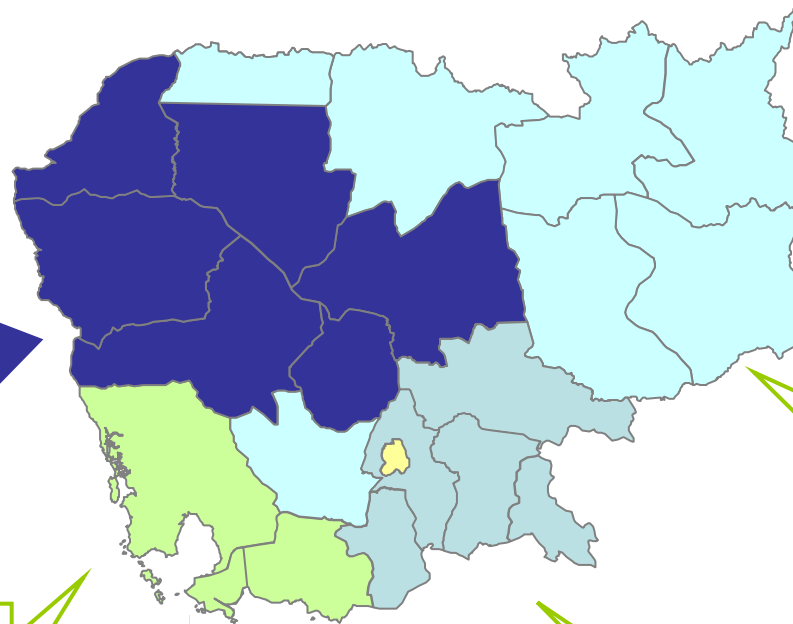
However:

- Limited technical expertise and project management skills in RGC
- Pending fulfillment of WTO requirements
- High informal costs of doing business

Rural Tonle Sap has largest number of food insecure people but good agricultural potential

Rural Tonle Sap:

Very high poverty rate, high number of food insecure people, relatively high soil fertility plus ~80% of total inland fish catch



FTI Impact potential

- High: Tonle Sap
- Med-High: Plains
- Low: Plateau/Mountains
- Low: Coastal
- Very low: Phnom Penh

Rural plateau/mountains:

Highest level of poverty, but very low population density

Rural coast:

Medium level of poverty and low population density

Rural plains:

Highest number of poor people but relatively lower agricultural potential due to medium soil fertility

Phnom Penh and other urban:

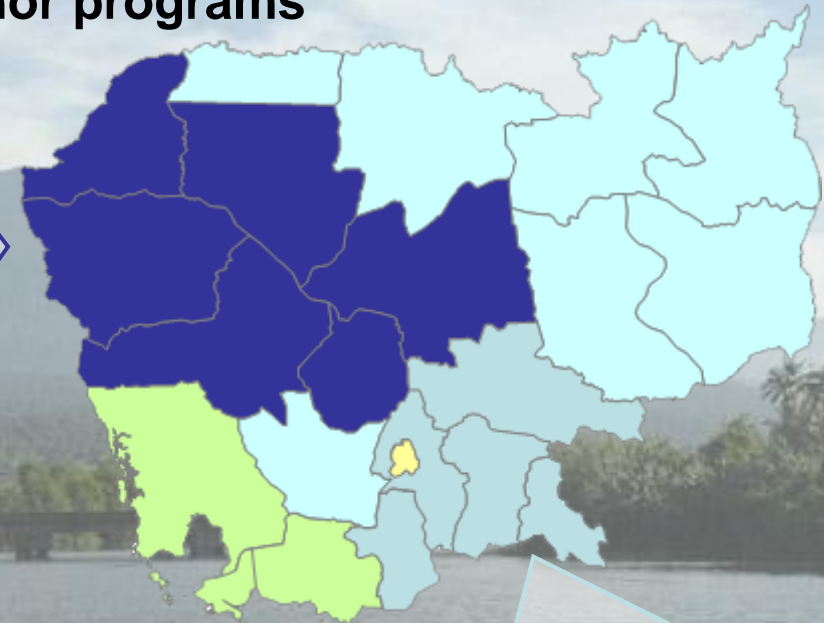
High population density but very low poverty rate

Rural Tonle Sap offers best opportunity for Feed the Future to build on donor programs






Rural Tonle Sap: donor programs

-  Advisory to 21 mid-size mills
-  Investment in water supply and sanitation
-  Post-harvest technology pilot
-  Agricultural productivity promotion
-  Sale of vegetable seed and provision of extension through private manufacturer
-  Agricultural development
-  Infrastructure & rice extension
-  Support to fishery & forestry communities and policy development

Feed the Future will benefit from donor investments while scaling up effective private extension models and proven post harvest technologies where appropriate



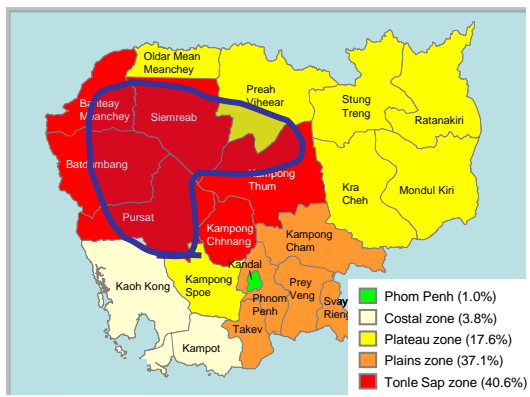
Rural plains: donor programs

-  Business development, extension & research
-  Cashew processing pilot
-  Investment in infrastructure & rice extension
-  Private extension in rice & vegetables
-  Vegetable value chain development

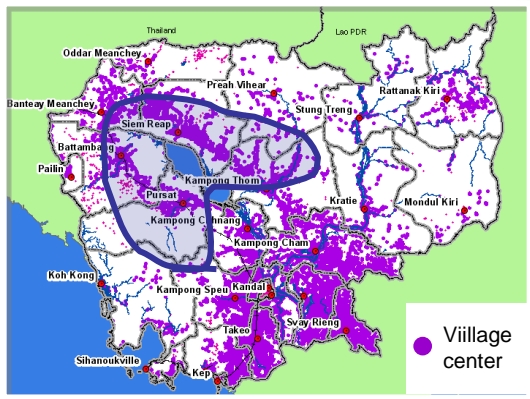
Target pool of 100K food insecure households in key lowland and forest areas

TO BE VALIDATED DURING PHASE 1

Tonle Sap has highest share of food insecure and is 2nd in poverty



Tonle Sap is 2nd most populated region

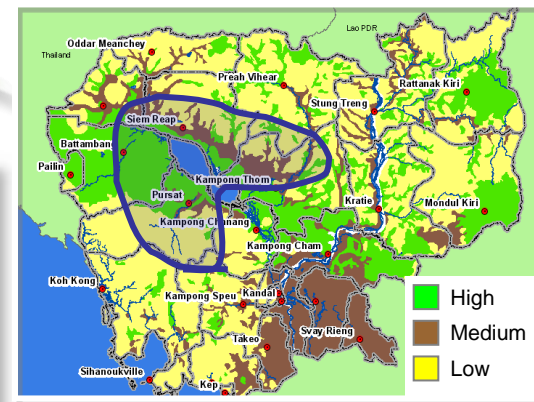


Proposed focus

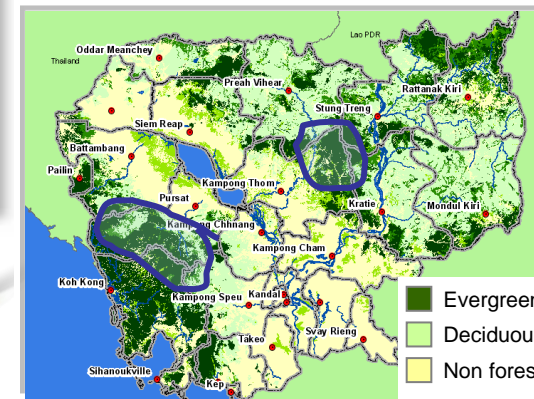
Rural Tonle Sap:

- 200K food insecure HH lean season
- 45% poverty rate
- 36% of Cambodia's poor
- Highest concentration of stunting & malnutrition
- Highest soil fertility
- Good water availability
- 2 of top 10 rice producing provinces

Tonle Sap has highest soil fertility & water availability



GCC: flooded, evergreen & deciduous dry forests



Feed the Future in Cambodia has three integrated components

1 Food security

Reduced food insecurity for 100,000 households in rural Tonle Sap focusing on:

- Rice-fish-horticulture sectors
- Household agricultural production
- Livelihoods diversification
- Post harvest activities
- Access to finance
- Behavior change nutrition education



2 Natural resource management & GCC

Improved ability to adapt to climate change by targeting:

- Agricultural and fisheries management techniques
- Community-based natural resource management of forests, fisheries, water resources and protected areas
- Ecosystem services

3 National level capacity building

In collaboration with RGC, improved capacity for national-level policy and research through:

- Applied research
- Inventory and valuation of key natural resources
- CIP development

FTF aligned with RGC strategies; confirmed in initial stocktaking roundtable

RGC investment plan programs

Strategic Framework for Food Security & Nutrition

- Agriculture and livestock production
- Higher incomes
- Use and utilization
- Social safety nets and capacities to cope with risks and shocks
- Institutional and policy environment



Strategy for Agriculture & Water

- Policy and regulation
- Capacity building
- Research, education and extension
- Food security
- Water and agricultural land resource management
- Agricultural business marketing

Feed the Future strategic areas

- Agricultural productivity & diversification
- Inputs, extension & post harvest
- Natural resource management and climate change adaptation
- Access to finance (credit)
- Institutional capacity

Gender and youth considerations

Role in Agriculture

Implications of **intra-household distribution of food**

Both **men** and **women** very **active** in agriculture

On average, **women** manage **HH finances**, if not always the decisions

>80% fruit & vegetable traders women

Rice drying by women is facilitated by small solar powered **dryers**

300,000 youth entering **labor force** each year



Implications on FTF

Nutrition education will target both **men** and **women**

Trainings in locations **convenient** to both men and women

Women as target **lead entrepreneurs**

Horticulture as focus value chain

Post harvest technology to reduce female workload

Potential **4-H type program**

1

Food security at competitive production costs

By focusing on rice, fish and horticulture, Feed the Future will:

Ensure food security...

- Strengthen availability and affordability of **2 major staples** during lean season
- Stabilize supply of major **animal protein (fish)**
- **Diversification: Dietary** (increase micronutrient intake, reduce lean season shortages), **Crop** (expand horticulture) and **Income** (increased sales & employment for vulnerable households)



...under competitive conditions

- Rice is competitive at **farm gate prices** according to initial analysis
- Cambodia is world's **4th largest fish producer**
- Vegetable producers can **become competitive in short term** ¹



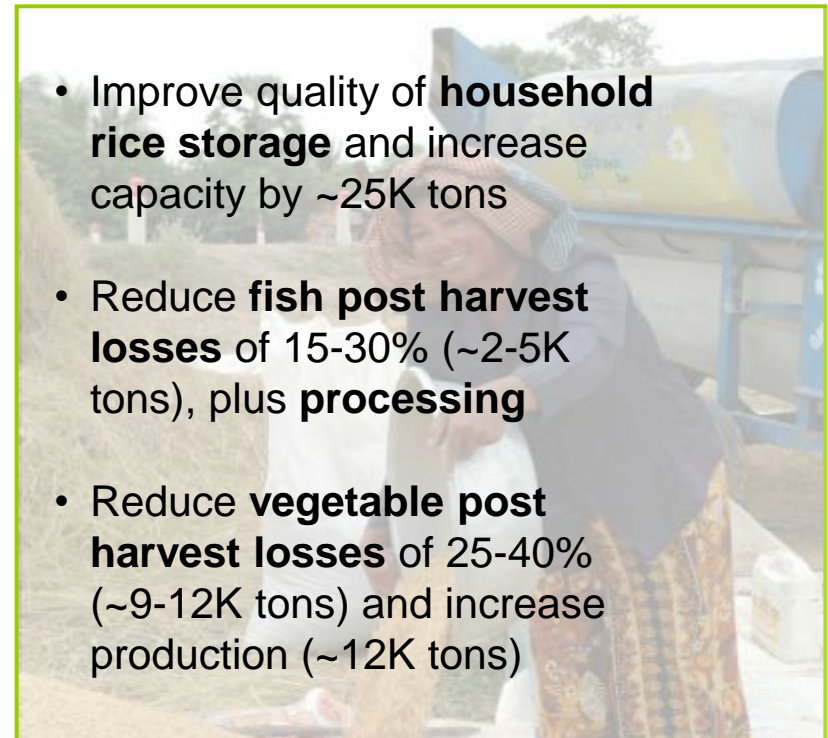
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Post harvest interventions to fill local demand

By focusing on rice, fish and horticulture, Feed the Future will:

Focus on crops with existing demand...

...through targeted interventions



1

Improving yields and reducing losses across value chains

FTF focus

Areas of opportunity

Expected quick win: reduce post harvest losses

Rice

Horti-
culture

Fish

Farming/fishing



Post harvest



Processing



- **50-80% yield improvement** potential
- **15% greater rice** production with **paddy fishing**

- Reduce **damage of 10-40%** from **poor seed & farming practices**

- **Reverse** trend in **fish resource depletion**

- Reduce paddy **losses of 15%** in traditional drying, household storage & village milling
- **30-50% higher prices** if sold during **lean season**

- Reduce **post harvest losses of 25-40%**

- Reduce **post harvest losses of 15-30%**

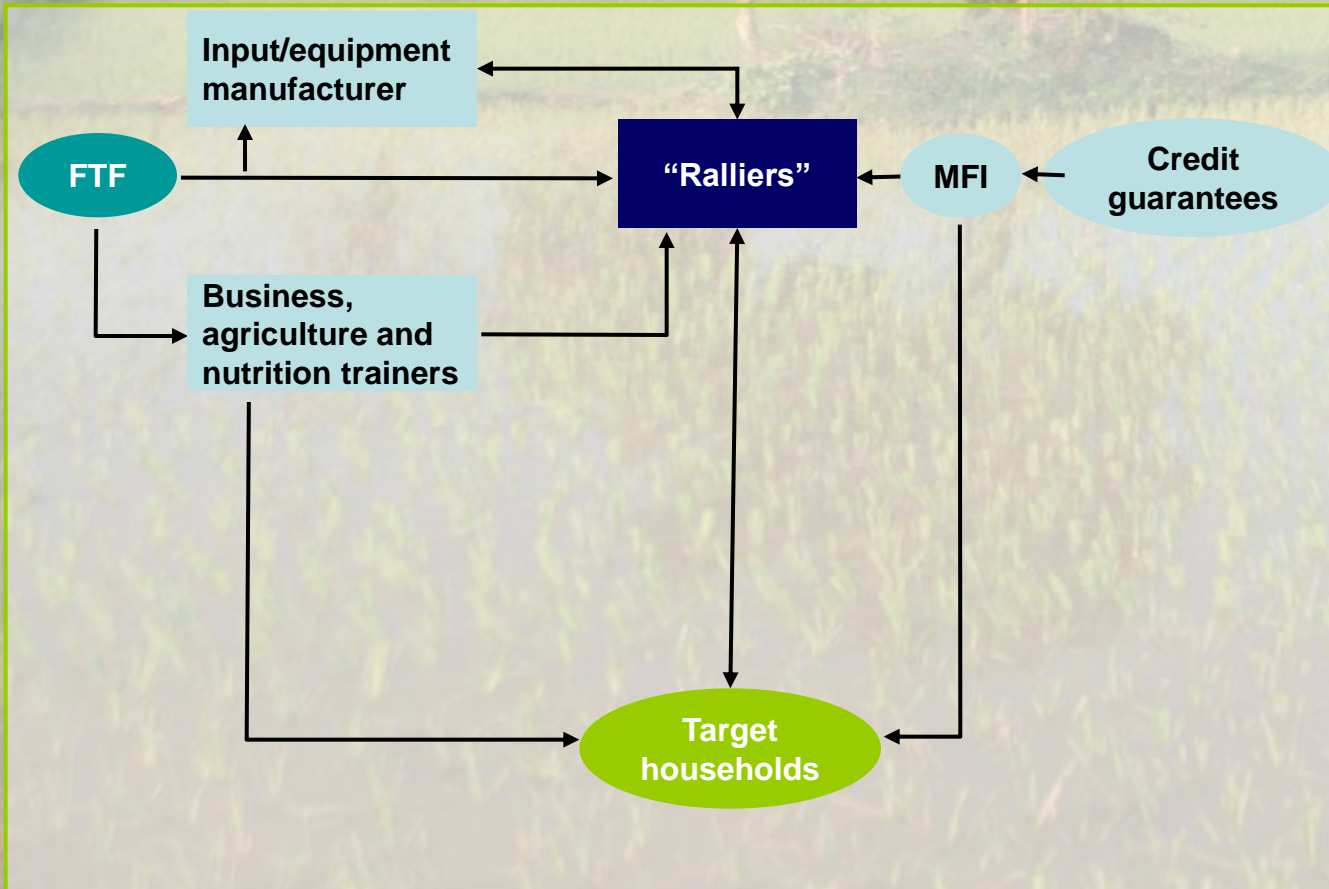
- Reduce 35-40% broken rice
- Reduce 30% mill idle time
- Upgrade equipment to increase efficiency

- Increase current weak processing capacity

- Promote **small scale processing** (<10% of catch is processed)

1

“Rallying the Farmers”: Reaching households through “Ralliers”



“Rallying” role can be played by:

- **Community based organization (CBO)** e.g. community fishery
- **Input supplier** e.g. village seed & fertilizer store
- **Intermediary enterprise** (successful in MSME program) e.g. small fish processor, trader, model farmer
- **Processor** e.g. rice miller
- **RGC agriculture** departments/extension agents
- **Supermarket**

1

Selection of “Ralliers”

FTF impact

Rallier	USAID’s role	Rallying role	Smallholder role	Cambodia context
1 Community based organization (CBO) e.g. community fishery or forestry group, farmer group	<ul style="list-style-type: none"> • Linkages, training, credit • Nutrition education 	<ul style="list-style-type: none"> • Purchase inputs in bulk & provide to farmers on credit • Distribute revenues • Develop management plans for improved farm and natural resource management 	<ul style="list-style-type: none"> • Get inputs from group • Sell through group, not on the side • Implement improved farm and natural resource management 	<ul style="list-style-type: none"> • ~470 fishery and ~420 forestry community groups established • Few farmer groups exist, mostly created by NGOs
2 Input supplier e.g. village seed & fertilizer store	<ul style="list-style-type: none"> • Linkages, training, credit • Support expansion to serve remote farmers • Nutrition education 	<ul style="list-style-type: none"> • Sell inputs & equipment • Technical advice • Provide credit to farmers 	<ul style="list-style-type: none"> • Use inputs effectively and repay credit during harvest • Follow technical advice 	<ul style="list-style-type: none"> • Small scale and traditional, limited availability of reliable inputs in Cambodia
3 Intermediary enterprise e.g. small fish processor, individual trader, model farmer	<ul style="list-style-type: none"> • Linkages, training, credit • Improve quality procedures • Nutrition education 	<ul style="list-style-type: none"> • Pre-harvest capability building & inputs on credit • Get commitments from buyers & commit to farmers in advance 	<ul style="list-style-type: none"> • Agree to price & quantities in advance 	<ul style="list-style-type: none"> • Could be women, even landless
4 Processor e.g. rice miller	<ul style="list-style-type: none"> • Linkages, training, credit • Nutrition education • Contracting support 	<ul style="list-style-type: none"> • Inputs & technical advice to farmers • Sign advance contract to purchase harvest at agreed price 	<ul style="list-style-type: none"> • Grow products to correct standards • Sign contract & don’t side-sell 	<ul style="list-style-type: none"> • Weak contract enforcement • Millers lack capacity to support extension • Very few veg. processors
5 Supermarket	<ul style="list-style-type: none"> • Convince supermarkets to buy from smallholders • Support branding • Nutrition education 	<ul style="list-style-type: none"> • Require suppliers to source 10 to 50% from smallholders 	<ul style="list-style-type: none"> • Grow products to meet supermarket standards 	<ul style="list-style-type: none"> • High barriers (payment terms, SPS standards, distance to market)

1 Cambodia FTF & GHI nutrition and health interventions mutually reinforcing

Improve diet quality and diversity

Improve nutrition-related behaviors

Increase utilization of health and nutrition services

Support country capacity and ownership

Feed the Future interventions

- Value chain investments in **nutrient rich crops**
- Homestead gardening
- Food processing and storage

- Increased access to **piped, potable and affordable water** & sanitation (ongoing)
- Explore use of ag delivery platforms and existing community health volunteers to promote Infant and Young Child Feeding and other interventions
- Community-based nutrition education on food preparation, intra-household food distribution, hygiene, traditional beliefs

- Promote referral to health system when child is sick
- Links to **food aid programs**

- Advocacy to elevate nutrition on national agenda
- Capacity building for development, implementation and monitoring & evaluation of integrated nutrition programs
- Research to inform **policy development and decision-making**

Global Health Initiative interventions

- Salt iodization
- Home-based fortification (Sprinkles)
- **Iron fortified fish sauce**
- Aquatabs distribution and floating water filtration systems on Tonle Sap
- Promotion of immediate and exclusive breastfeeding
- Communication for improved complementary feeding
- Hand washing and hygiene interventions
- Community screening for severe acute malnutrition management
- Maternal micronutrient supplements (iron folate)
- Zinc & Vitamin A supplementation
- Prevention and treatment for malaria, **diarrhea and other diseases** (bednets, zinc)

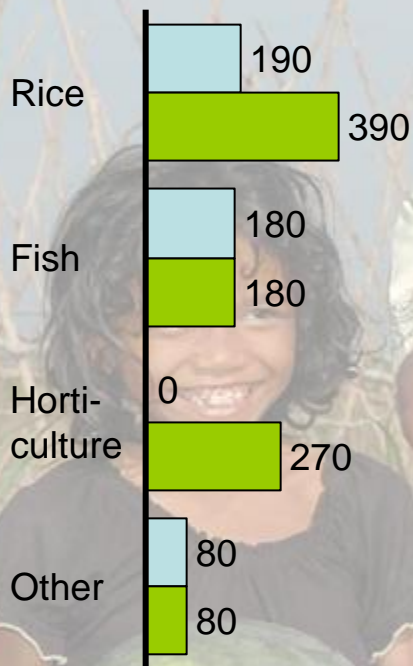
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Household impact & return on investment

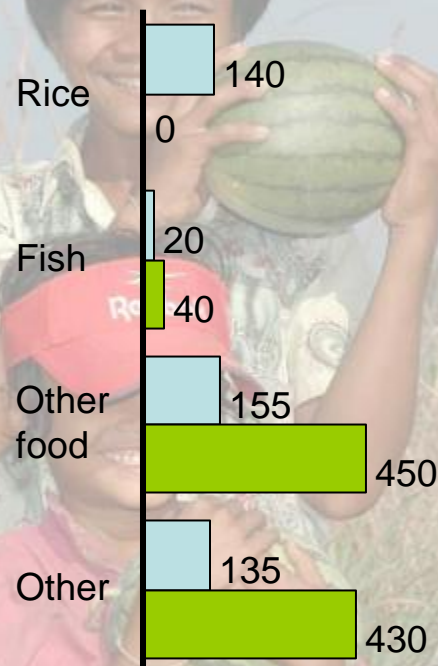
**TO BE VALIDATED
DURING PHASE 1**

- Inputs, farming practices
- Resource management
- Post harvest
- Access to finance/credit
- Nutrition education
- Estimated cost per farmer of \$200-300

Income



Spending



Household impact

- 2x income, stable and diversified
- Rice and fish available during lean season
- Diversified diet

Before
After

HH INCOME BEFORE: \$450 / year

HH INCOME AFTER: \$920 / year

2

Climate change: impacts and adaptation



Potential Climate Change impact

- High vulnerability country
- Extremes in flooding and drought
- Temperature increase of 0.5-2.5 degrees Celsius
- Change in vegetation patterns



Adaptation to Climate Change

- Flooded, evergreen & deciduous dry forests and Tonle Sap basin
- Drought resistant & other appropriate cultivars
- Certification and audit requirements for the CDM, REDD, REDD+ and voluntary markets



Impact on FTF target population

- Increased income opportunities from NTFP and conservation activities
- Improved resilience of agricultural production to climate stressors
- Improved watershed management

3

Capacity building in public, private and civil society

USAID/Cambodia will focus on...

- **Effective technologies**
- **Rice cultivars and other staples that are resilient to changes in growing conditions**
- **Education and awareness campaigns for Cambodian land policy and legal rights for communities**
- **Climate change adaptation and mitigation in development planning**
- **Real-time access to climate and weather forecasting**
- **Research, inspection, monitoring and environmental protection**

Yielding...

Provincial, district and community level government & national research institutions':

- Systems for data collection and monitoring and resource accounting
- Improved policy formulation and implementation

Private sector and civil society:

- Improved production systems for fish, livestock, horticulture and grain crops
- Legal recognition of their organization
- Organizational and financial management, transparency and internal governance, advocacy/negotiations

Intra-agency food security working group led by Mission Director



EGAT

- CRSP (Nutrition, SANREM, IPM, Aquaculture)
- WID
- IARC/CGIAR



OFDA

- Expanding staff
- Disaster Risk Reduction
- Flood Forecasting



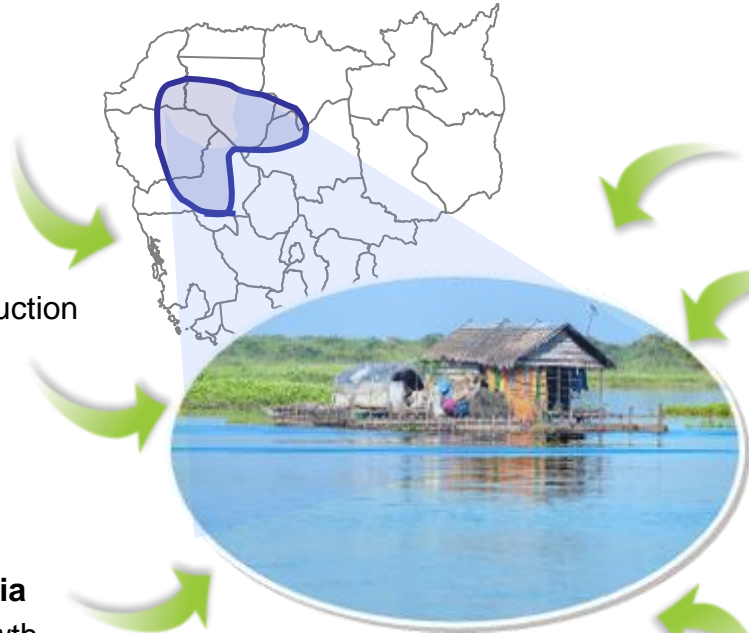
RDMA

- FTF
- GCC
- Regional trade



USAID Cambodia

- Economic Growth
 - FTF, MSME, GCC
- Democracy and Governance
 - Rule of Law
 - Human Rights
- Health and Education
 - Nutrition education for behavior change
 - Complementary feeding
 - Clean water and sanitation
 - Life-skills curriculum pilot



Peace Corps

- Nutrition & sanitation messaging to village health support volunteers & health centers



USGS

- Forecast Mekong climate change scenarios



USDA

- Food for Education
- Local & Regional Procurement Program
- Cochran fellowships
- Analytical, technical, policy and marketing expertise



CDC

- Nutrition and sanitation education to health care workers
- Disease surveillance
- HIV/AIDS and TB



State Department

- Landmine reduction support
- Policy messaging
- Government linkages

Feed the Future impact indicators

**TO BE VALIDATED
DURING PHASE 1**

Overall FTF goals (Forecast includes anticipated impact of other donors & RGC)	2010	2015
• Prevalence of poverty (under \$1.25/day)	40%	33%
• Prevalence of underweight children under 5	Baseline from DHS ¹	-9 %pts
National level (Focus will be on Tonle Sap region)	2010	2015
• Expenditures of rural households (by proxy) ²	Baseline from DHS ¹	+TBD
• Prevalence of wasted children under 5	Baseline from DHS ¹	-8 %pts
• Prevalence of stunted children under 5	Baseline from DHS ¹	-8 %pts
Project level (Indicators listed only for interventions relevant to Cambodia mission)	2010	2015
• Improved access to markets		
– Value of incremental sales (collected at firm level) attributed to FTF implementation	\$0	\$75m
• Increased agricultural sector jobs		
– Number of jobs attributable to FTF implementation (firm level survey) ³	TBD	TBD
• Private sector investment		
– Value of new private sector investment in the ag sector or food chain leveraged by FTF	TBD	TBD
• Improved access to diverse & quality foods		
– Prevalence of maternal anemia	Baseline from DHS ¹	-11 %pts
• Improved nutrition related behaviors		
– Prevalence of exclusive breastfeeding of children under 6 months	Baseline from DHS ¹	+13 %pts

¹ Awaiting final 2010 DHS; ² DHS contains such info in the form of improvements to houses and land; ³ Will be calculated with full time employment and includes self employment at the farm level;

THANK YOU!

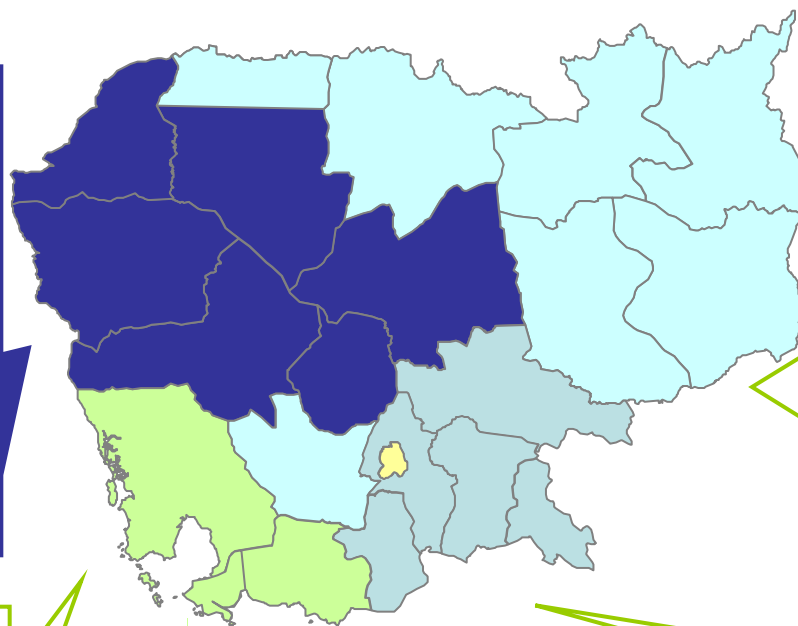


Annex

Rural Tonle Sap has largest number of food insecure people and good agricultural potential

Rural Tonle Sap:

- 3.6m people
- 1m food insecure in lean season (average 18% of HH)
- 45% poverty rate; 36% of total in Cambodia
- High agricultural potential with mixed soils and ~80% of total inland fishing
- Donors in infrastructure, rice milling and vegetable extension



FTI Impact potential

- High: Tonle Sap
- Med-High: Plains
- Low: Plateau/Mountains
- Low: Coastal
- Very low: Phnom Penh

Rural plateau/mountains:

- 1.8m people
- 0.5m food insecure in lean season (average 7% of HH)
- 56% poverty rate; 14% of total in Cambodia
- Little agricultural potential aside from forestry activities
- Few donors

Rural coast:

- 0.9m people
- 0.1m food insecure in lean season (average 7% of HH)
- 27% poverty rate; 4% of total in Cambodia
- Poor soil; forestry and marine fishing (10% total catch)
- Few donors

Phnom Penh and other urban:

- 2.9m people
- 0.2m food insecure in lean season (average 7% of HH)
- 5% poverty rate; 4% of total in Cambodia
- Limited agricultural potential

Rural plains:

- 6m people
- 1m food insecure in lean season (average 9% of HH)
- 33% poverty rate; 42% of total in Cambodia
- Medium agricultural potential, mixed soils
- Donors in rice and horticulture extension