Innovation for Sustainable Agriculture (ISA)
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FOCUS ON IMPLEMENTATION OF CONSERVATION AGRICULTURE AND SUSTAINABLE INTENSIFICATION (CASI) IN CAMBODIA

INNOVATION SUSTAINABLE AGRICULTURE

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WHY FOCUS ON CONSERVATION AGRICULTURE/SUSTAINABLE INTENSIFICATION (CA/SI)
II. CHALLENGES IN AGRICULTURE

There is a need for the Cambodian agriculture sector to reinvent itself by shifting from increased production through land expansion and excessive use of inputs towards sustainable intensification.

Smallholder farmers are particularly vulnerable to climate change given their high dependence on rainfall and minimal crop diversification.

Cambodian agricultural lands are under threat of degradation and soil fertility depletion due to deforestation.

42% of land in Cambodia is under strong degradation.

The annual cost of land degradation in Cambodia is estimated at USD 677 million.
Sustainable Intensification looks at optimizing resource utilization and management whereby farmers produce greater yields by using fewer inputs and without increasing land area. The key components of sustainable intensification (SI) are Conservation Agriculture (CA) and Agroecological Crop Protection (ACP).

III. NEED FOR A SUSTAINABLE INTENSIFICATION SOLUTION

- EFFICIENCY: better use of on-farm and imported resources.
- SUBSTITUTION: focuses on the replacement of technologies and practices.
- REDESIGN: (transformative) to harness ecological processes and connect scales (field to markets).
IV. PROMOTION OF SUSTAINABLE INTENSIFICATION SOLUTION THROUGH ISA

Objective

In line with the aspirations of the Royal Government of Cambodia, ISA will work to make the Cambodian agriculture sector move towards sustainable intensification by promoting conservation agriculture (CA/SI). The project will support existing public and private institutions to provide appropriate sustainable technologies and techniques to smallholder farmers.

Development Plan

- To strengthen coordination and sharing of information and knowledge
- To promote sustainable agriculture extension services
- To promote sustainable agriculture techniques and technologies
- To increase knowledge of system actors by collaborating with universities and research institutes.

Geographic Focus

ISA is in 4 provinces: Battambang, Preah Vihear, Kampong Thom, and Siem Reap.
ISA ELEMENTS

COLLABORATION  EXTENSION  PROMOTION  KNOWLEDGE
V. TARGET GROUPS AND OUTREACH

The project will have two target groups, namely the farmers and the students. ISA seeks to create an impact by a) increasing the income of the farmers; and b) improving the skills of the students so that they would be the future technical experts to promote Conservation Agriculture and Sustainable Intensification.
VI. PARTNERS

ISA delivers interventions by fostering collaboration with relevant private and public actors.
VII. STRATEGIC FRAMEWORK

Strategic framework

Sustainable agriculture vision of change

- Poverty reduction
- Improved access and growth for poor target group
- Market system change
- Intervention areas

- Farmers increase their productivity and social and environmental sustainability
- Farmers gain access to appropriate and relevant agricultural techniques and technologies
- Actors work together for the promotion of sustainable agriculture
- Facilitate collaboration among stakeholders

- Employment opportunities for students
- Students increases hands on experience and better suitable to enter the workforce
- Students get access to the internship opportunities with private sector
- Universities provide better internship opportunities with private sector
- Public and private sector coordinate to provide extension services
- Promote agriculture extension services
- Machinery retailers sell appropriate technology
- Promote sustainable agriculture technology and techniques

IA1
IA2
IA3
IA4

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VIII. INTERVENTION AREAS

IA1: Collaboration
Strengthen coordination and sharing of information and knowledge

IA2: Extension
Promote sustainable agriculture extension services

IA3: Promotion
Work on various mechanisms to promote sustainable agriculture techniques and technologies

IA4: Knowledge
Increase knowledge of system actors by collaborating with universities and research institutes
IX. HOW THE INTERVENTION AREAS COME TOGETHER

IA1. Facilitate stakeholder Collaboration

IA2. Strengthen Extension System

IA3. Promote technologies (machineries and inputs)

IA4. Strengthen the Knowledge Management (Internship)

SCALE UP CA PRACTICE

Provides the platform for private sector to promote CA technologies

Provides the necessary human resources

Provides enabling environment

Provides inputs for actions

Provides the platform for private sector to promote CA technologies
X. MODELS

**Metkasekor**, literally translated as farmers’ friend, an “opening-the-market” conservation agriculture/sustainable intensification extension service model.

**4S Model**, a go-to-market strategy developed specifically for private sectors to introduce and promote new agriculture technology to farmers.

**InGuider** a four-stage guideline in preparing and running a standard internship program for universities.
XI. TECHNOLOGIES

1. Preparing land for plantation
2. Land levelling
3. Planting of cover crop
4. Cover crop management
5. Planting of main crop
6. Harvesting main crop

- Soil cultivator
- Land leveller
- Combine harvester
- No-till planter
- Seed broadcaster & cover crops
- Roller crimper

- Soil
- Main crop
- Cover crop
XII. GENDER INCLUSION STRATEGY

ISA aims to engage women farmer’s participation in project activity and encourage female university students to participate in internship program, also known as InGuider.

ISA will employ Gender Equity and Social Inclusion (GESI) Policy which will ensure that, male and female both have equal access to information and extension services.

Apart from women farmers, ISA will also be working with female university students at Royal University of Agriculture and National University of Battambang.
ISA LAB

WE INTEND TO SUPPORT APPLIED RESEARCH. WE WILL WORK WITH RESEARCH INSTITUTIONS, UNIVERSITIES AND OTHERS TO CONDUCT THE RESEARCH. SOME OF THE RESEARCH AREAS ARE...
“Valley of Death” to get an in-depth understanding of the various factors that contribute to narrowing the gap between researched technology and commercialization. We envision that the findings will help improve our understanding and also serve as a guiding document for researchers, development agents and relevant stakeholders to understand what factors help in overcoming the gaps.
“Diffusion of Innovation” to validate and identify factors that incentivize innovators and early adopters to try out the new technology. ISA envisions that the findings will serve as guiding document for other development agents or stakeholders to implement efficient interventions when it comes to introduction of new technologies in Cambodia and beyond.
"Metkasekor Model" to understand the effectiveness of promoting CA technologies through "opening the market" extension model, the success will allow the Government to plan on "opening the market" in other areas so that the private sector can expand their activities in those "sensitized" locations.

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Technical support provided by Department of Agriculture land Resources Management and Department of Engineering and Royal University of Agriculture

Pilot Private Sector Partners

Promoted by and based on the experiences of PADAC, SANREM, CASF and MIGIP in joint partnership with CASC/DALRM, CIRAD, CESAIN/RUA, SIIL/KSU and Swisscontact.
METKASEKOR EXTENSION MODEL

Ministry of Agriculture, Forestry and Fisheries

PDAFF

Spokes/ Early Adopters

SHFs

Private Sector

Feedback

Provides trainings

Coordination and information

feedback & outreach

Provides trainings

Provides trainings, service & products

Provides trainings, service and products

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innovation for sustainable agriculture
OUR TEAM
XIII. MEET THE TEAM

For more information, please visit our website: Innovation for Sustainable Agriculture (ISA) www.swisscontact.org/isa or e-mail Rajiv or Erica.

Rajiv Pradhan
Project Manager
rajiv.pradhan@swisscontact.org

Erica Wu
Deputy Project Manager
erica.wu@swisscontact.org
XIII. MEET THE TEAM

Sorkunthika Srour
Intervention Area Lead

Dennamanith Premprey
Intervention Area Lead

Dorabondeth Seng
Intervention Area Lead

Davith Eang
Intervention Officer

Sovannoret Mak
System Specialist

Vathana Chamroeun
Intervention Officer

Chakriya Soeun
Intervention Officer

Soveth Ream
Intervention Officer

Rosa Ratha
Junior Project Officer

Rathanakvichea Phann
Junior Project Officer
XIII. MEET THE TEAM

Wensydy Yort
MRM Officer

Kimchean Prum
Director of Business Administration

Sovantola Sin
Admin/IT Coordinator

Bopha Theang
Senior Human Resource Officer

Chanmonichroza Sambath
Secretary/Receptionist

Tola Hang
Senior Project Accountant

Sokuntheary Oeung
Junior Finance Officer

Pritesh Chalise
Quality Assurance Manager

Sorphorn Souk
Communications & Partnership Director

Vearyda Oeu
Communication Officer
Thank You!

Please be in touch with us if you are interested in

- Expanding your business in the sustainable intensification (machinery, credit, inputs, etc)
- Providing support to expand the ISA model or parts of it in other parts of Cambodia
- Doing more research on how sustainable intensification can scale up in Cambodia