

DEI MEAS

“Golden Soil”

Government initiative led by GDA/DALRM



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3. DEI MEAS “Golden Soil”
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1. KEY MESSAGE

3-YEAR PILOT (2022-2024)

DEI MEAS aims to explore financial mechanisms for a sustainable and long-term transition of smallholder farmers toward agroecological practices.

PILLAR 2

IMPACT
QUANTIFICATION

PILLAR 1

FARMER
TRANSITION

PILLAR 3

FINANCIAL
MECHANISM

EXPECTED IMPACT

180

HOUSEHOLDS
IMPACTED

\$25,000

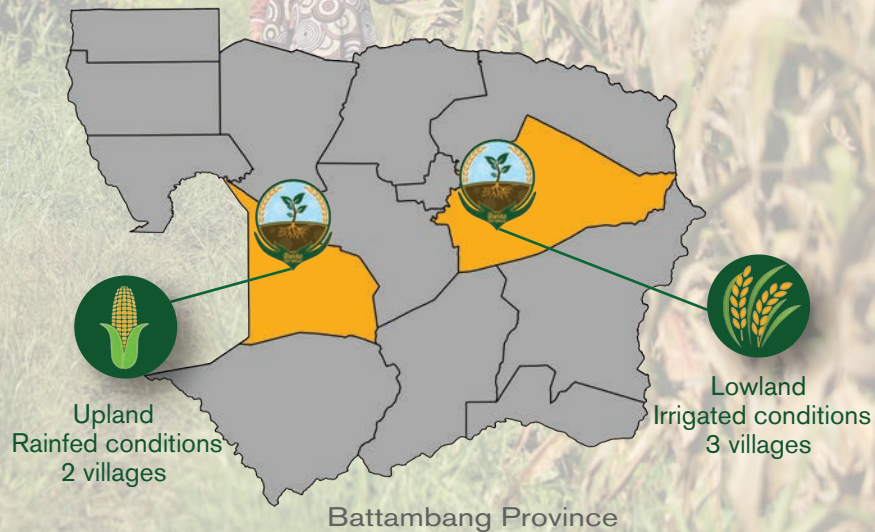
OF INCENTIVE
PER YEAR TO
FARMER

500

HECTARES UNDER
AGROECOLOGICAL
TRANSITION

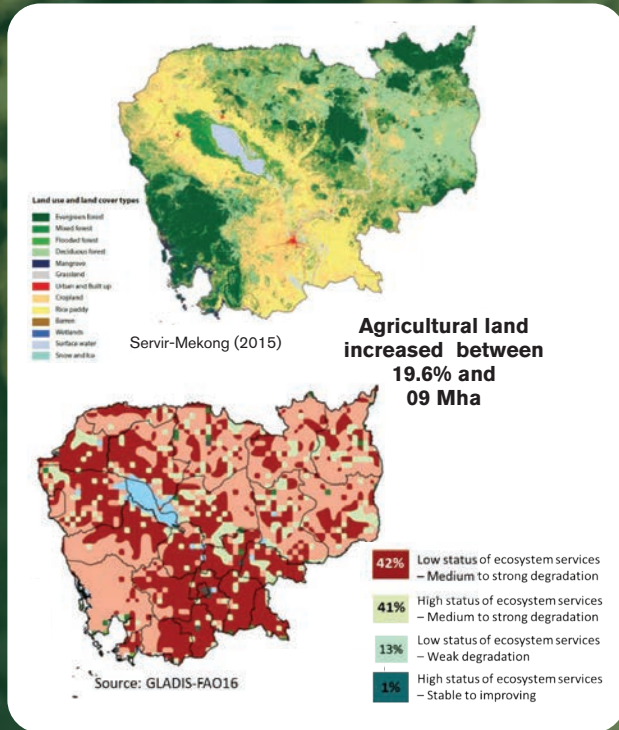
EST 200

METRIC TONS OF
CO₂EQ
SEQUESTERED



2. BACKGROUND

CHALLENGES IN AGRICULTURE



Small holder 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.

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 toward Agro-ecology.

NEED FOR TRANSITION

AGRO-ECOLOGY IN CAMBODIA: IMPACTS AND CO-BENEFITS

AGRO-ECOLOGY PRACTICES

- Permanent soil cover (Cover crops)
- Diversification
- Reduced to no-tillage
- Appropriate-scale machinery (no-till planter, land leveling...)
- Chemical inputs management
- Alternate Wetting and Drying (AWD)

IMPACTS

Climate Change Mitigation

CARBON SEQUESTRATION

Removal

EMISSIONS REDUCTION

Avoidance

CO-BENEFITS

Climate Change Adaptation

SOIL FERTILITY

ENHANCE BIODIVERSITY

HALT EROSION

IMPROVE LIVELIHOOD

WATER SAVING

LIMITATION TO AGROECOLOGICAL ADOPTION

Year 0
Project starts

Year 1
Sustainable practices adoption

CHALLENGES TO TRANSITION



TRANSITION COSTS



ASSETS AVAILABILITY



TECHNICAL KNOWLEDGE



SHORT-TERM YIELD LOSS

Year 3-5
Independent convinced farmers

Farmers are not willing to wait 3 to 5 years and risk transition to new practices without incentives.... What if farmers were **Incentivized in the first year of transition.**

3. DEI MEAS “Golden Soil”

THE SOLUTION

A FINANCIAL MECANISM TO SUPPORT SMALLHOLDER FARMERS IN THEIR TRANSITION TOWARD AGROECOLOGY.

PILLAR 1: TRANSITION

Support smallholder farmers to adopt agroecology with a transparent practice-based reward system



PILLAR 2: QUANTIFICATION

Create a precise and cost effective Measurement, Reporting and Verification (MRV) system, calibrating different innovative technologies to quantify measurable outcomes.



PILLAR 3: FINANCE

A financial mechanism exploring access to markets for measurable outcomes, ensuring a sustainable business model for the initiative and its replicability.



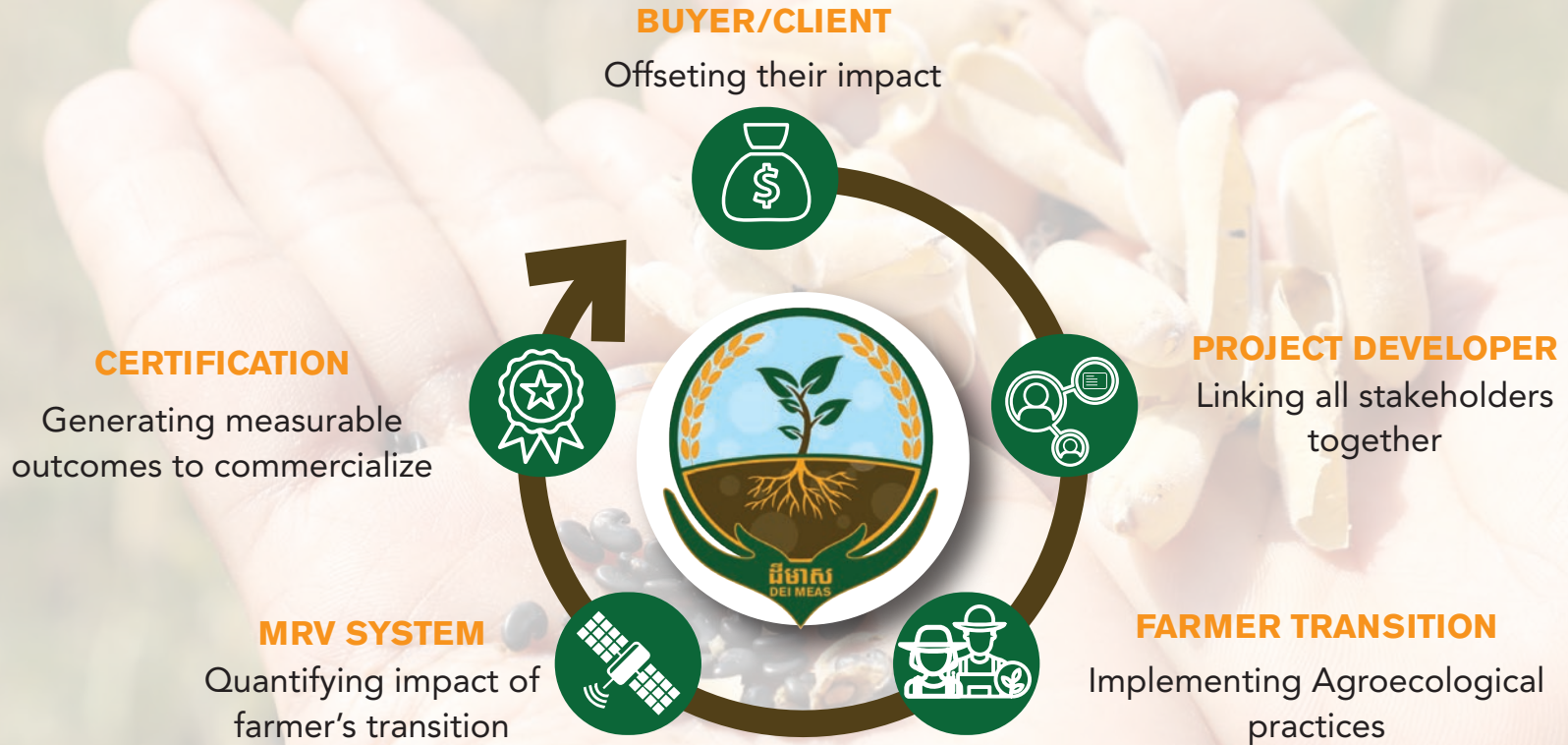
UNIQUE FEATURES

Opening smallholder farmers access to new source of finances to support their Agroecological transition.

Recognizing smallholder farmers as part of the solution for climate change mitigation and ecosystem services preservation.

Monitization of farmers positive impacts on climate change adaptation and ecosystem services.

THE DEI MEAS MODEL



STAGES OF IMPLEMENTATION



YEAR 0

ALL THE TIME

ANNUALLY

1

REGISTRATION

- Demand-creation events
- Individual interviews
- Farmer training



2

MONITORING

- Link farmers to service providers
- Agroecological practice implementation
- Technical assistance



3

REWARDING

- Annual verification
- Reward events
- Farmer's payment



REWARDING SYSTEM FOR DEI MEAS

SCENARIO 1

INTRODUCTION OF COVER CROPS

- Soil health improvement
- Nitrogen-fixing capacity
- Reduction of soil depletion (compaction, erosion...)

\$

SCENARIO 2

SCENARIO 1 + LAND LEVELING AND NO/REDUCED-TILLAGE

- Improvement soil structure
- Improvement soil biological activity

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SCENARIO 3

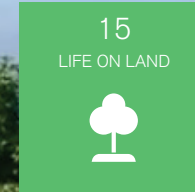
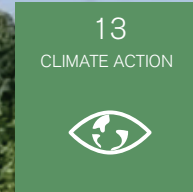
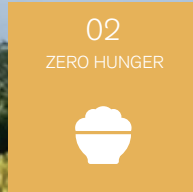
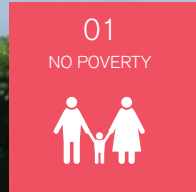
SCENARIO 2 + CROP DIVERSIFICATION

- Diversified production
- Accumulation of SOC and other ecosystem services (nutrient cycling, soil biological activity ...)

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OUTCOMES AND IMPACTS

DEVELOPMENT GOALS



IMPACT

180

HOUSEHOLDS
IMPACTED

500

HECTARES UNDER
AGROECOLOGICAL
TRANSITION

\$25,000

OF INCENTIVE
PER YEAR TO FARMER

4 PRACTICES

COVER CROPS, LAND
LEVELING, NO-TILL,
DIVERSIFIED ROTATIONS

CO-BENEFITS

Enhanced biodiversity
and ecosystem services

Est. 2000 metric tons
of CO₂eq sequestered

Reduction of farmland
greenhouse gas emissions

TESTIMONIAL



“ DEI MEAS has made the transition to Regenerative Agriculture a much more affordable and accessible option for me. I am happy to implement cover crops as my productivity has gone up and my rice plants are taller and deep rooted. ”

Mrs. Naev Sombo
Domnak Dankar village, Battambang province



“ DEI MEAS reward system eased my decision to transition to Regenerative Agriculture a more sustainable method of farming. Following the transition, I have observed gradual increase in my farm soil health and my productivity. I have also reduce my production expenses by 60%. ”

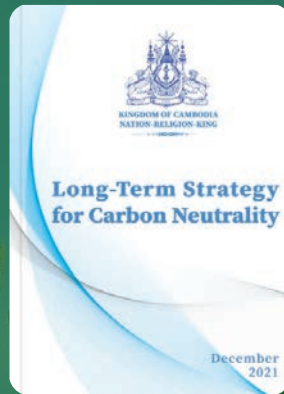
Mr. Phol Ratha
Reang Kessei village, Battambang province

ASPIRATIONS TOWARDS SCALE

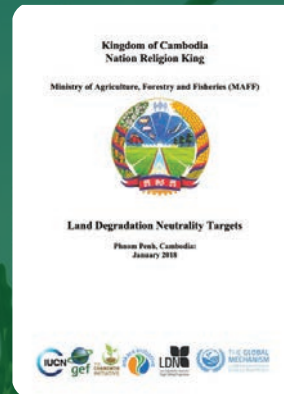
DEI MEAS IS INSTITUTIONALIZED WITHIN DALRM, AND FUNCTIONS AS A PRODUCT OF THE GOVERNMENT THAT EFFECTIVELY CONTRIBUTES TO THE RGC'S POLICIES AND ACTION PLANS.



Reduce national greenhouse gas emissions by half by 2030 compared to 2016 scenario



Achieve carbon neutrality in 2050, while providing a carbon sink of 50 megatons of carbon dioxide equivalent (MtCO₂e)



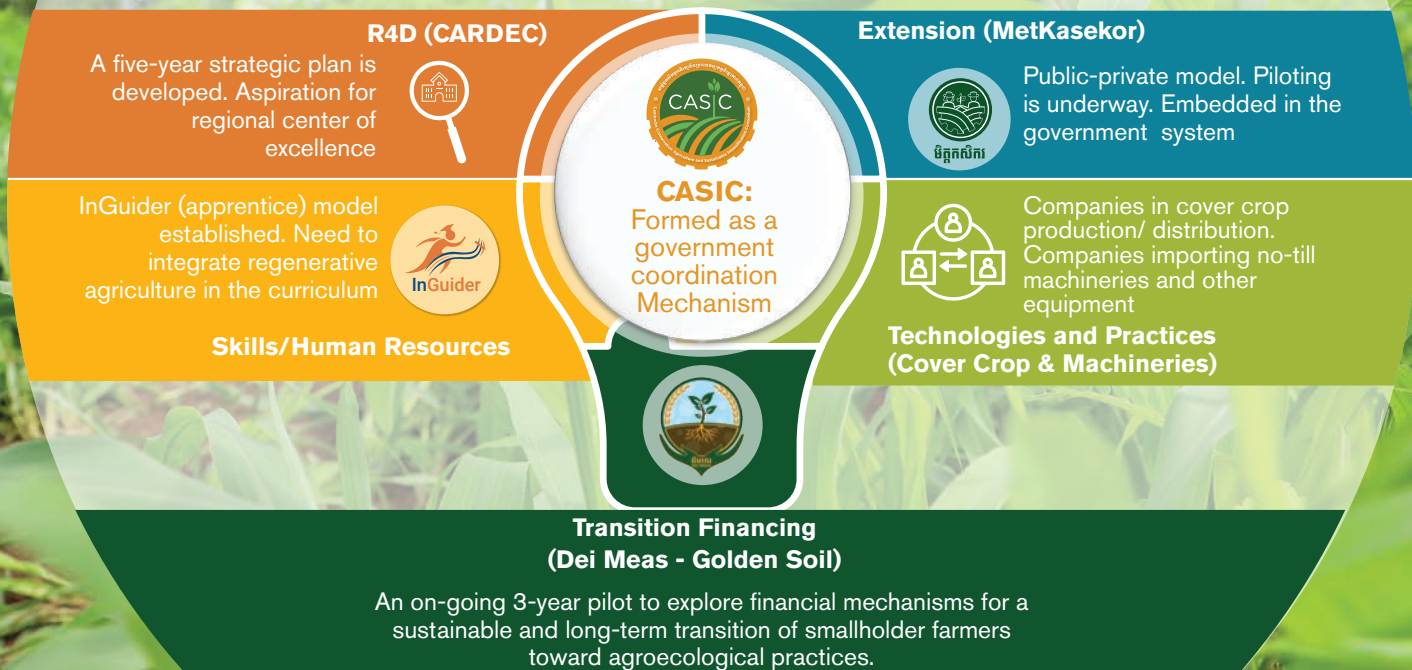
By 2030:

- Increasing forest land of 47%
- Increase in agricultural growth by 5% per annum
- Increase by 0.12% per year SOC stocks
- Restoring at least 8% of degraded areas

*RGC: Royal Government of Cambodia

DEI MEAS IS ALSO A KEY PART OF THE INTEGRATED APPROACH LED BY CASIC* IN CAMBODIA

RECTANGULAR APPROACH FOR REGENERATIVE AGRICULTURE IN CAMBODIA



* CASIC: Cambodia Conservation Agriculture and Sustainable Intensification Consortium

4. PARTNERS

PROJECT LEADS:



PROJECT DEVELOPERS:



PARTNERS:



មីក្លូកសិករ



SUPPORTERS:



Agroecology and
Safe Food System
Transitions



AFD
AGENCE FRANÇAISE
DE DÉVELOPPEMENT



Co-funded by
the European Union



FONDOS FRANÇAIS POUR
L'ENVIRONNEMENT MONDIAL



REGEN
NETWORK



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC



THANK YOU