PROGRESS REPORT

YOUTH AND SMART AGRICULTURE PROJECT - *CREATING JOB OPPORTUNITIES FOR YOUTH THROUGH SMART AGRICULTURAL PRACTICES WITH ENVIRONMENTALLY-FRIENDLY FARMING IN PREY VENG PROVINCE*

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Project Background/Rationale in Brief

- Rice production is still one of the main sources of Cambodian farmers' income.
- Due to climate change & lack of manpower, farmers have been shifting from handed-rice transplanting to direct seeding (wet seed and dry seed).
- With new farming techniques, many challenges/issues faced by farmers: weeds, insects, diseases on their crops, low productivities…
- To cope with this, a lot herbicides, pesticides, synthetic fertilizers have been applied without respect to technical regulation (especially for off-season rice farming) to control pests and to increase soil fertility.
- Resulting from agrochemical application, it is a rapid increase of production cost, and harmful to the health of human, animal & environment.

Project Overview

TITLE OF THE ACTION: Creating job opportunities for youth through smart agricultural practices with environmentally-friendly farming in Prey Veng province

GENERAL OBJECTIVE	To contribute to the improvement of job opportunities for youth and standard of living for local community livelihoods in Prey Veng province.
SPECIFIC OBJECTIVE	To improve the decent income of the targeted community people through introduced rice transplanting machine and agroecological practices in Prey Veng province.
EXPECTED RESULTS	1. Rice producers applying direct seeding will be shifted to rice transplanting by using rice transplanting mechanization. 2. Income of AC and rice producers will be improved through applying sustainable rice farming and agroecological practices. 3. Agrochemical inputs (pesticides, fertilizer…) for rice farming will be rapidly deceased and replaced by alternative of agroecological practices. 4. Constraints and needs of youth to get jobs in rice sector will be identified and taken some specific action for improvement.
Project Duration	2 years from January 2024 to December 2025

ACTIVITIES & RESULTS ACHIEVED

Result 1: Shifting from direct seeding to rice transplanting by using rice transplanting machine

Activity 1.1: Support and install rice seedling nursery facilities at BMAC's warehouse compound

2 Rice seedling nursery facilities supported:

- *1 facility with its size of nursery: 24m x 8m and capacity of rice seedling production: approx. 3 ha per cycle.*
- *Another facility with its size of nursery: 14m x 6m and capacity of rice seedling production: approx. 1.5 ha per cycle.*

Result 1: Shifting from direct seeding to rice transplanting by using rice transplanting machine (con't)

Activity 1.2: Deliver training on rice seedling production techniques

- 14 persons from AC leaders, staff and workers of BMAC received a training on rice seedling production.
- Hence, they are able to properly manage a set of this activity.





Result 1: Shifting from direct seeding to rice transplanting by using rice transplanting machine (con't)

Activity 1.3: Support BMAC in preparing yearly activity plan of rice seedling production vs. the need of rice transplanter machine service by rice producers

- 2 meetings were hosted with leaders of BMAC to develop annual activity plan.
- By 12th Nov., **24%** (14.4 ha) of **60 ha** planned as written in the plan: 9.50 ha with transplanted rice and additional 4.9 ha of rice seedlings (12 producers).

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2	ស្ទូងស្រូវ OM5451			10	2	4		8	2	8	5	39
3	ស្ទូងស្រូវ IR504							2		2		4
4	ស្ទូងស្រូវសែនក្រអូប											
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Result 1: Shifting from direct seeding to rice transplanting by using rice transplanting machine (con't)

Activity 1.4: Assist BMAC and interested rice seed producers in producing and caring rice seedlings

- So far, 2 rice producers have learnt and produced rice seedlings at their home, and use a service of BMAC's rice transplanter.

Activity 1.5: Deliver training on the operation of rice transplanter machine

- 28th Oct 2024, training delivered to 23 leaders and staff of BMAC and interested producers by staff of Agrismart Innovation at BMAC's warehouse compound.
- Participants learnt about:
  - The operation of rice transplanter in proper way during rice transplanting.
  - Use, maintenance and repair
  - Seedling production, land preparation…

Result 1: Shifting from direct seeding to rice transplanting by using rice transplanting machine (con't)

Activity 1.6: Assist BMAC in providing a service of rice transplanting machine

- 14.4 ha of land size of 12 rice producers applied rice transplanter service of BMAC.
- Uniform for the team of rice transplanter service provided
- Regularly supported to BMAC leaders.


WAREHOUSE AND DRYING YARD

Result 2: Increasing income of BMAC and rice producers through applying sustainable rice farming including agroecological practices

Activity 2.1: Develop business model analysis of BMAC on service provider of rice transplanter

- 3 meetings with BMAC leaders were hosted to develop a business plan.
- The 3-year business plan was approved by the President of BMAC on 31st Aug 2024.
- As written in the business plan, BMAC will make a profit: around 1,047$ in 2024, 1,143$ in 2025 and 1,428$ in 2026.

→ **Profit: 382, 400 Riel (in 2024)**

Activity 2.2: Assist BMAC in implementation of rice seed business linked to market

- Regularly supported BMAC leaders to keep good relationship with existing buyers and to explore more penitential buyers.
- By the end of Oct, approx. ***497.58 tons*** sold: *31,544 kgs of Phkar Romduol, 6,525kg of Sen Kraob, 391,310 kgs of OM5451 and 68,200 kg of IR 504.*

Result 2: Increasing income of BMAC and rice producers through applying sustainable rice farming including agroecological practices (con't)

Activity 2.3: Create clusters of rice seed producers applied agroecological practices and rice transplanter machine

- 2 meetings with potential rice producers held at the 2 districts of Baphnom and Ream Ror, with 18 people in attendance.
- In 2024, 9 producers have jointed a rice seed producers groups.
- A total 42 rice seed producers are located in 11 villages, 8 communes, 3 districts

Result 2: Increasing income of BMAC and rice producers through applying sustainable rice farming including agroecological practices (con't)

Activity 2.4: Provide capacity building on rice seed production and postharvest techniques in incorporation with agroecological practices

Result 2: Increasing income of BMAC and rice producers through applying sustainable rice farming including agroecological practices (con't)

Activity 2.5: Conduct exchange visit on application of rice seedling production and rice farming applied with rice transplanter machine

- 1 exchange visit hosted on November 13, 2024
- Through this exchange visit, the participants have learnt about
  - a whole process of rice seedling production
  - a rice transplanter service of the MBAC
  - Comparing the benefits of rice farming between direct seeding and rice transplanting using rice transplanter.

Result 3: Decreasing agrochemical input use (pesticides, fertilizer…) for rice farming, replaced by alternative of agroecological practices

Activity 3.1: Conduct a baseline and end-line survey on agrochemical inputs used by farmers

- Baseline questionnaires and protocol for interview developed.
- 13 rice producers interviewed from 17-26 Jun 2024 and data entry
- Data analysis and reporting under the process.

Activity 3.3: Support BMAC to install compost-making machine/ equipment to produce rice husk charcoal and natural fertilizer

- Support for rice husk charcoal instalment.
- Coaching on how to produce rice husk charcoal.

Result 3: Decreasing agrochemical input use (pesticides, fertilizer…) for rice farming, replaced by alternative of agroecological practices (Con't)

Activity 3.4: Conduct demonstration on agroecological rice farming techniques applied by rice transplanting machine vs. direct seeding

- 5 demos on rice production using rice transplanter have been implementing at 5 communes in Baphnom distict, with 4.62 ha in total.
- According to the record, OM5451 rice harvested 6,614 kg/ha of fresh paddy and Phka Romdoul yielded 2,250 kg/ha of fresh paddy.

→ Increased yield: around 900 kg/ha for OM5451

→ Ex. 900 kg x 1400 Riel = 1,260,000 Riel (equal 300$) per ha

No.	Code No.	Producer Name	Demo on Rice Seed Production by using Rice Transplanting Machine					
			Land Size (ha)	Seed name	Seed classification	Date of Sowing	Date of Transplanting	Actual yield (kg)
1	G006	Kong Keat	0.5	OM5451	Registered Seed	26-Apr-24	11-May-24	3,065
2	G079	Kong Mun	0.5	OM5451	Registered Seed	24-May-24	8-Jun-24	2,656
3	G017	Khun Sa Em	2	Phka Romdoul	Certified Seed	9-Jun-24	27-Jun-24	4,500
4	G086	Va Neang	0.72	OM5451	Registered Seed	16-Aug-24	29-Aug-24	2,228
5	G001	Phoeun Sine	0.9	OM5451	Registered Seed	17-Aug-24	2-Sep-24	4,879
Total			**4.62**					**17,328**

Result 3: Decreasing agrochemical input use (pesticides, fertilizer…) for rice farming, replaced by alternative of agroecological practices (Con't)

Activity 3.5: Capitalization and dissemination good practices on sustainable rice farming applied by rice transplanter machine

Result 4: Identification and taking some specific action for improvement the constraints and needs of youth to get jobs in rice sector

Activity 4.1: Assist youth in collective reflection to identify constraint, needs, and proposition of solution and support allowing them to live in rice sector

- 2 meetings: a total 59 attendees (18 women)
- Results:
  - Around 45- 50% of young people dropped secondary and high school (50% boys and 30% girls).
  - Migration to Phnom Penh, other provinces, Thailand.
  - Reasons of migration due to no secured job in their villages, no skill/know-how, frequently failure of crop/animal raising (high production cost vs. cheap price of their agro-products).
  - They will stay in their villages if they have secured job.
  - …

Date of meeting	# of meetings	# of participants		Participants by age vs. person							
				<14		15-30		31-59		> 60	
		Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
29-Jul-24	1	37	9			10	2	27	7		
19-Sep-24	1	22	9			16	6	6	3		
	2	**59**	**18**	**0**	**0**	**26**	**8**	**33**	**10**	**0**	**0**

Challenges Encountered

- Rice producers are reluctant to use a service of rice transplanter by BMAC (1,200,000R/ha). They think it is more expensive in the beginning of rainy season.
- A service of rice transplanter has still required many manpower/labor force in order to operate this service provider.
- Rice production was attached by white flies → many insecticides were used.
- It is difficulty to encourage young people working on rice crop production due to the fluctuation of paddy price, unsecure income etc.

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Thank you for your attention!

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