



Promotion of Agricultural Cooperative in Disaster Risk Reduction to Build Community Resilience in Cambodia

A Potential Business Model
08/11/2023



Handbook of Agricultural Cooperative





Introduction

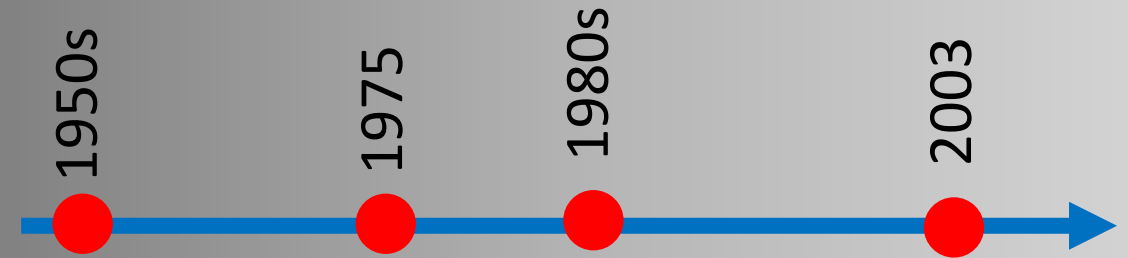
- Cambodia is still an agrarian country
- Vegetable is produced locally at about 70% of local consumption
- Agricultural Cooperative (AC) is a business entity to promote agricultural production
- There are mixed performances among AC and mixed outcomes
- Climate Change (mainly drought) imposes more and more challenges.

This project aims to foster long-term community resilience in Cambodia by empowering agricultural cooperatives (social entrepreneurs) to develop disaster resilience plans.

Background of Study



Are repeating ourselves?

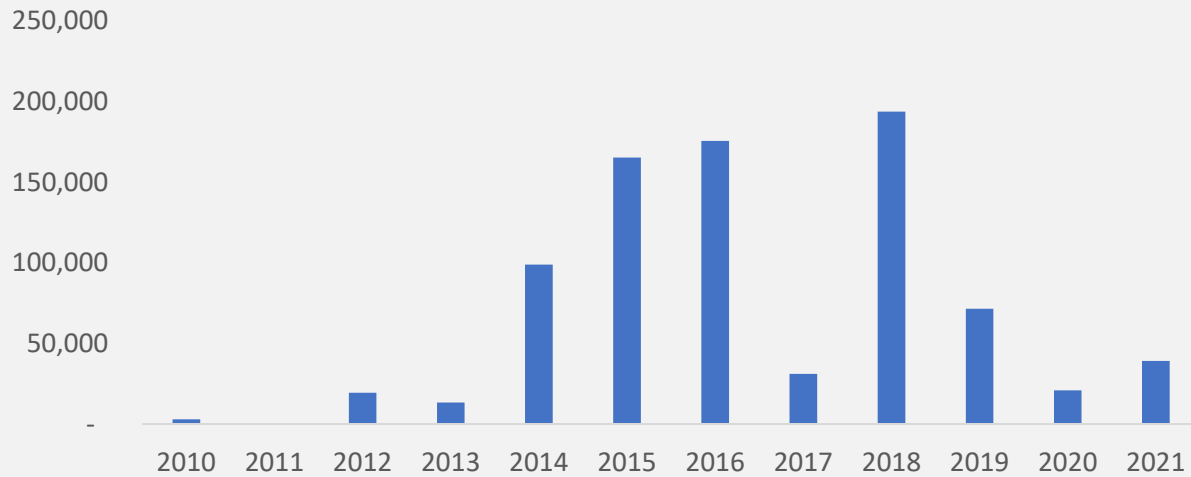


In the name of AC, farmers felt differently.

- In Other countries, ACs are well performance
 - Improving productivities
 - Income generation activities
 - Access to agricultural services, including finance
 - Technology
 - Market networks...

Background of Study

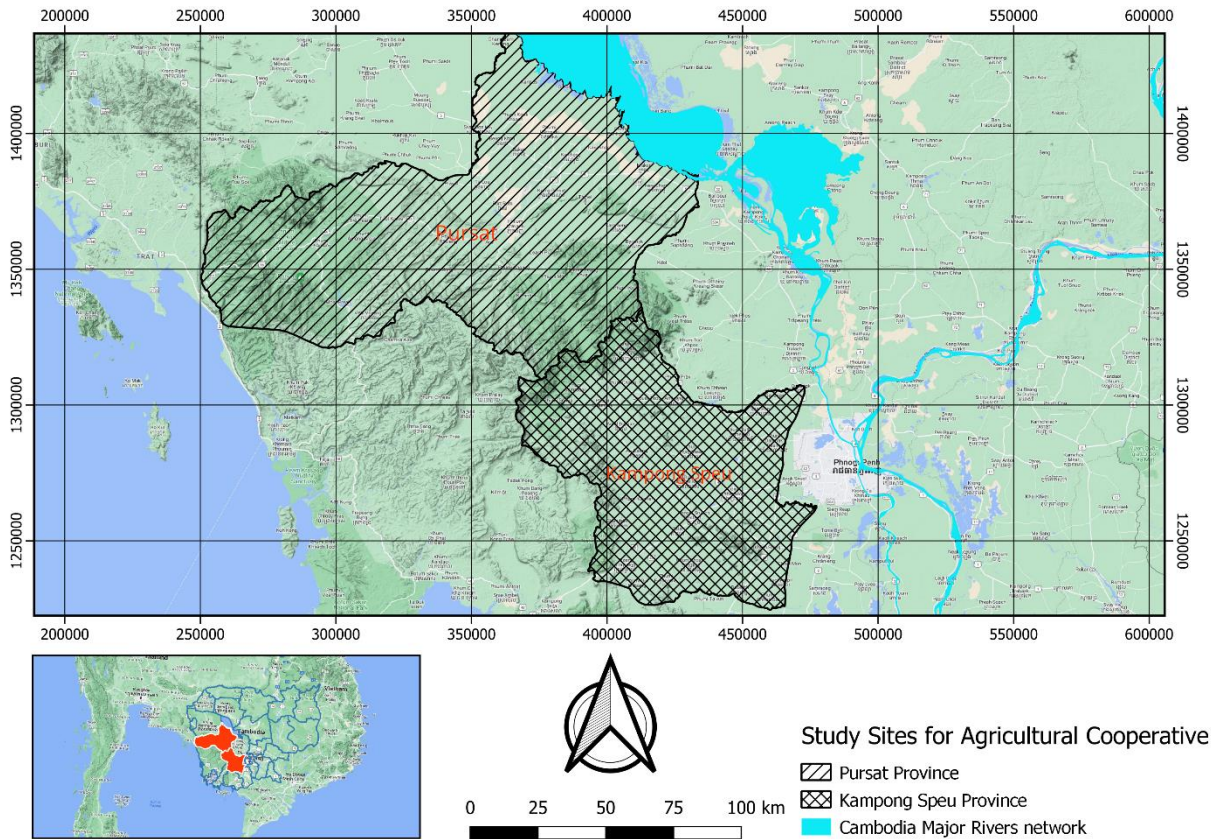
Rice damage by drought (in hectares)

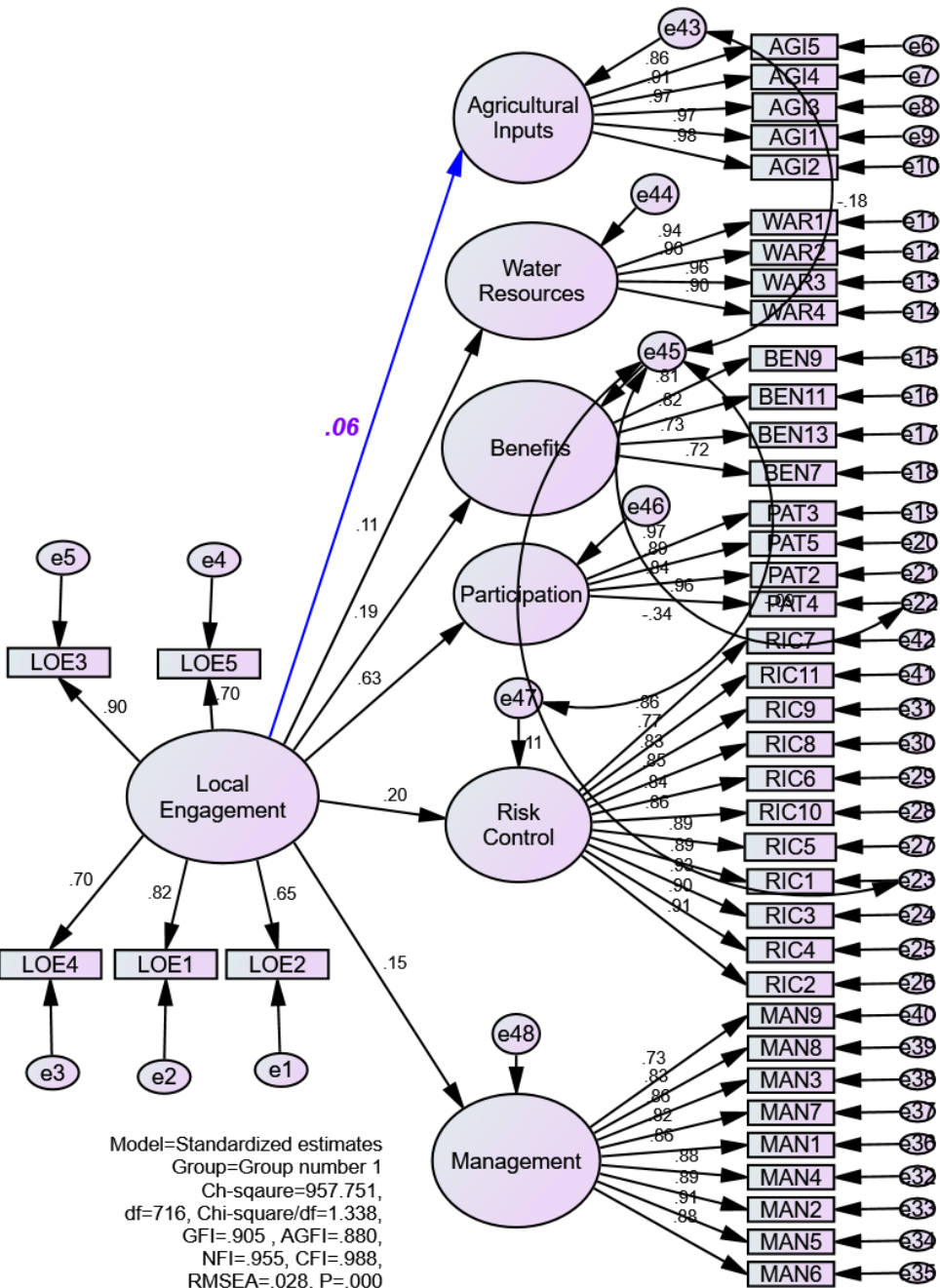


- Research on ACs shows that:
 - Challenges faced by internal factors
 - Challenges faced by external factors
 - Drought, among natural disasters, is not well articulated in ACs' related research

Case-Study

- Two provinces were selected for our study
- Pursat province has 59 Acs, and Kampong Speu has 60 Acs.
- 419 Samples of Acs and Non Acs households were interviewed
- Several KII were conducted
- Quantitative data used, such as Rainfall and Rice yield, to understand community susceptibility
- A Sustainable Livelihood framework was also deployed





Findings

	Kampong Speu	Pursat	Total
Sample Size	210	209	419
AC Respondents	72	68	140
Average age respondent	49	47	-
Gender (Female)	143	132	275
Average settlement land (m2)	1885	1143	-
Average agricultural land (ha)	2.57	4.85	-
Primary Occupation as farmer	74%	80%	77.5%
Secondary Occupation as home garden or livestock	21.4%	39.2%	30%
ID Poor I	13	17	30
ID Poor II	17	23	40

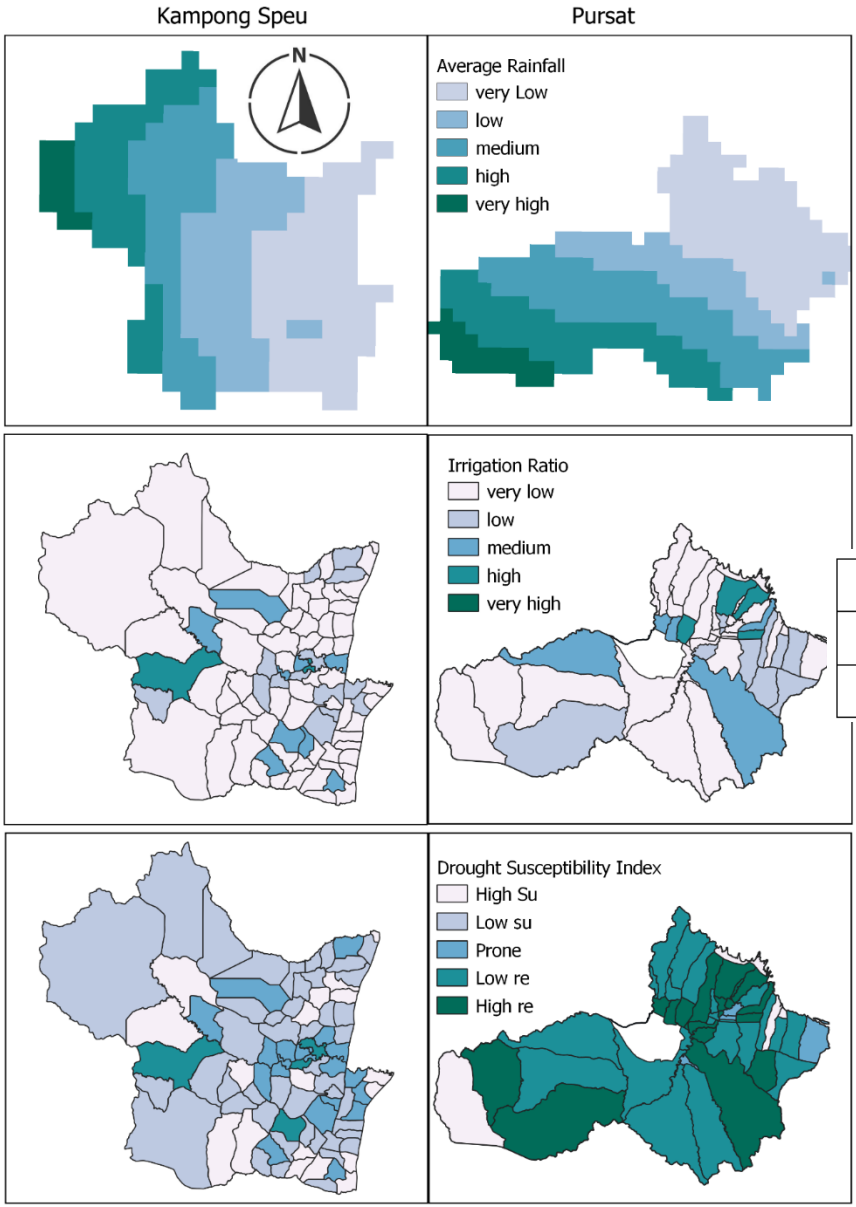
Experience drought among AC member

Experience drought	Every year	In 5 Years	In 10 Years	Total	Percent
Less than 20% damage	30	6	2	38	27%
Less than 40% damage	11	13	4	28	20%
Less than 60%	2	18	15	35	25%
More than 80%	0	18	21	40	29%
Total	43	55	42	140	100%

Experience drought among non-AC member

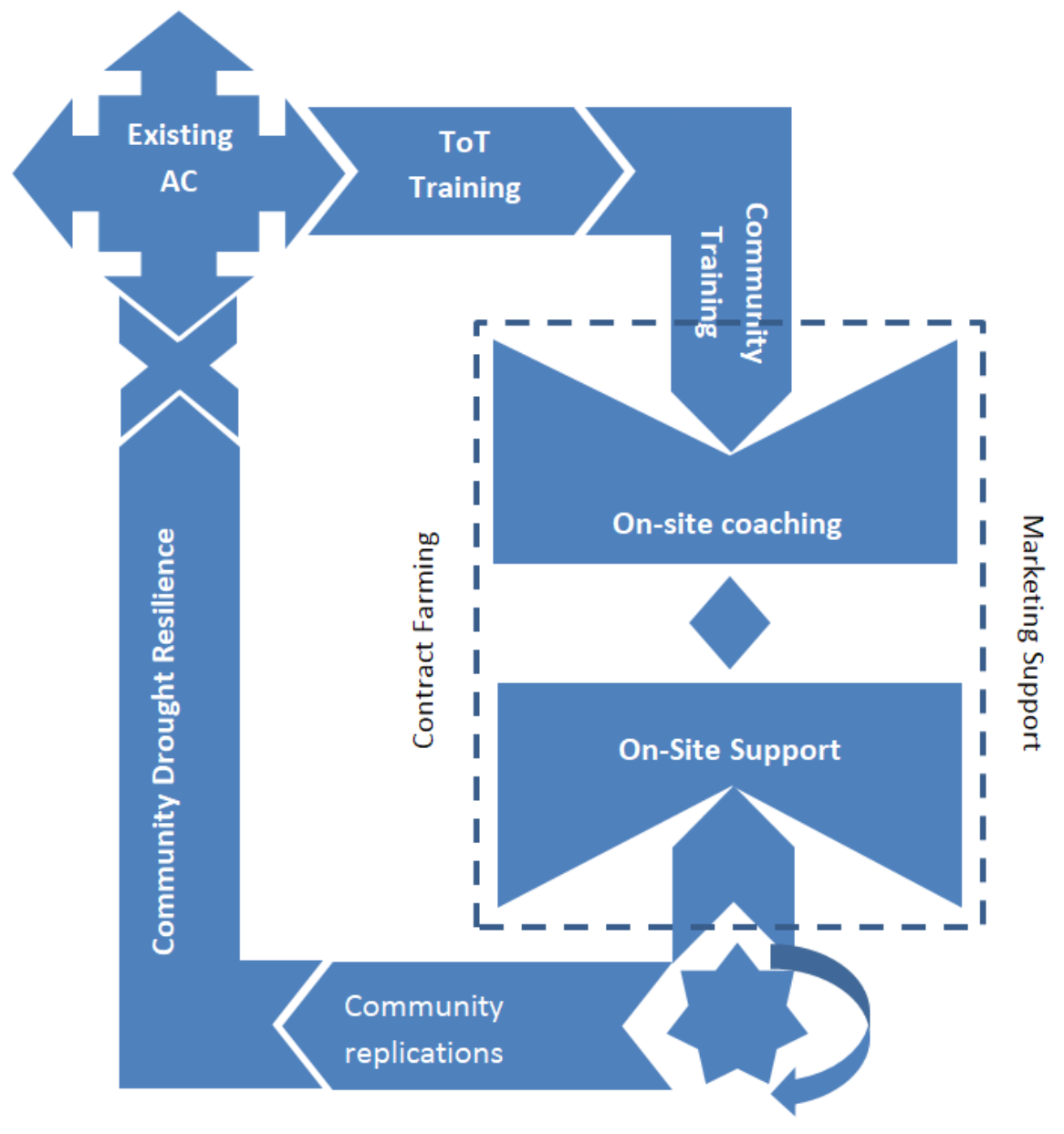
Experience drought	Every year	In 5 Years	In 10 Years	Total	Percent
Less than 20% damage	51	12	5	68	24%
Less than 40% damage	20	30	13	63	23%
Less than 60%	3	29	36	68	24%
More than 80%	2	25	52	79	28%
Total	76	96	106	278	100%

Findings



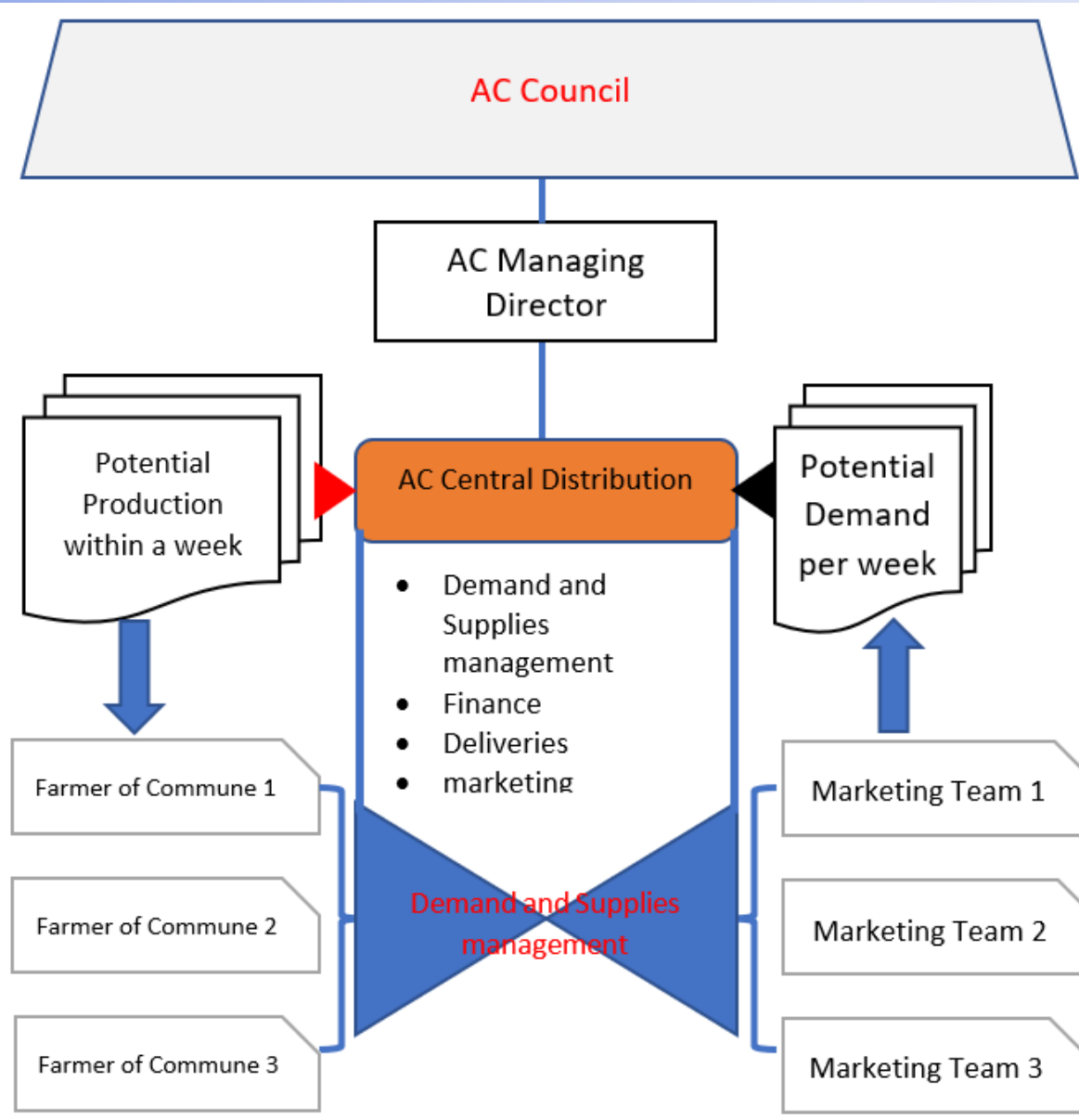
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Dry Season				Early-Season			Mid-Season		End-Season		Dry
Most paddy field is idle				Start Wet Rice			Growing		Harvest Period		

$$DSI = \frac{1 + \left(\frac{A_{area\ irrigated}}{A_{total\ area}}\right)}{1 + \left(\frac{Y_{commune}}{Y_{max}}\right)} - 1$$

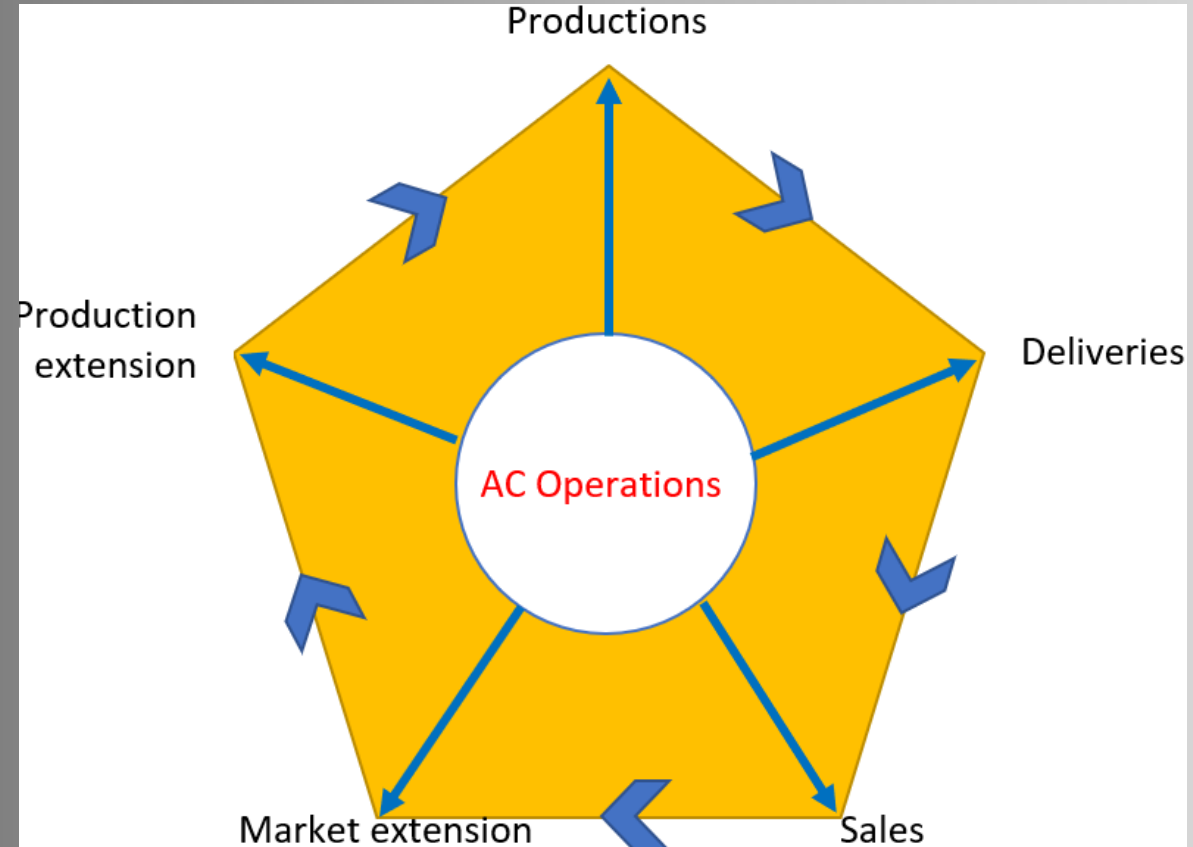


Findings

- **Uncertainty from externalities:** ACs are exposed to risks from climate change, disasters, and pandemics.
- **Low technical capacity:** ACs may lack the skills and knowledge to produce and market their products efficiently.
- **Limited financial management:** ACs may struggle to manage their finances effectively.
- **Uninformed market demands:** ACs may not be well informed about the needs of their target markets.
- **Capacity building:** ACs can be supported to build their capacity in financial literacy, agricultural extension services, and farmer-market networks.



Potential business model



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Key Partners:

Southeast Asia Disaster Prevention Research Initiative
Universiti Kebangsaan Malaysia (SEADPRI-UKM)
Royal University of Phnom Penh (RUPP)
Geological Society of Malaysia (GSM)
Malaysian DRR Service Organization



Publications



Article

Local Engagement in the Agricultural Cooperatives (ACs) Operation in Cambodia

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Article

Roles of Agricultural Cooperatives (ACs) in Drought Risk Management among Smallholder Farmers in Pursat and Kampong Speu Provinces, Cambodia

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