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Farm Aggregation and role of the private sector in Thailand: toward sustainable and equitable and equitable food systems

Nipon Poapongsakorn

Thailand Development Research Institute

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TDRI
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Topic of discussion

1 Changing agri-food value chain systems and the rise of small farm collective action

2 The new models of small farm aggregation

3 Drivers of new aggregation models and economic rationale

4 Examples of farmer groups that experience higher productivity and adopt the sustainable business practices

5 Can the new models succeed?

1. Changing agri-food value chain system (AFS) and the rise of small farm collective action

- Revolutions in the AFS(Barrett et al. 2022) : 3 changes on the supply side
  - Supermarket revolution
  - Food service revolution: street food, chain restaurants
  - The quite revolution in Value Chain Intermediation: cold chain, food delivery
- Drivers are changes on the demand side
  - Rising per-capita income result in the following changes
    - Demand for more nutritious, perishability and meat: high income elasticity
    - Demand for non-nutritive quality attributes, carbon footprint, ESG, and social concerns
  - Increased urbanization: longer distance of transport requiring cold chain, higher time cost
  - Development of food safety & new product standards & management practices
  - Globalization
  - Technology improves the services and reduces costs of supply chain services

The revolution creates new growth of opportunity for small farmers, thanks to digital technology and the increasing markets for a variety of niche products

- But linking small farms to urban/ modern food value chains is still a challenge –
  - High transactions costs and comparative disadvantage relative to suppliers/ retailers
- Small Farm Aggregation models are seen as a way to achieve scale by
  - ❖pooling necessary resources for investment in the group business
  - ❖Investing in managerial/ entrepreneurial skills to compete with agricultural product traders/ middlemen
- In the past, the old model of government-sponsored and highly regulated cooperatives in most countries did not work, except in a few European and East Asian countries (Abraham et al 2022).
- Why do the new aggregation models work (at least as of today)?
- Inspiring by the work of Pingali (2023), two studies in Thailand attempt to explain and analyze their success (Nipon et al. 2022; Nipon et al. 2023), using a combination of questionnaire survey, series of focus group and in-depth interviews as well as field visits

2. New and old models of small farm aggregation

New model	Old model

New model

- Community enterprises (2022)
  - Crops 36,652 enterprises
  - Food and other products 13,807 enterprises
- Farmer groups established by pioneer farmers
- FGs supported or initiated by NGOs
- FGs supported by the agri-business companies, rice mills, tapioca processors, supermarkets, food exporting suppliers
- No one size fits all

Old model

- 3,958 farmer Cooperatives (all crops in 2022)
  - 1,899 rice farmer cooperatives
- Other farmer groups supported by government policy and different gov't agencies (no information)
- Contracted sugar cane farmers receiving credits from mills or sugar cane quota farmers
- Groups characteristics is "One size fits all" and heavily regulated

There are different reasons for farmer groups by main business objectives: no one size fits all

- **Input access or pooling investment in modern farm machinery**
  - Lower prices of purchased inputs and machinery services
  - Higher quality of inputs and machine services
  - Access to quality inputs and modern technology
  - Some smart farming methods need very large asset specific, e.g. green house with fully equipped automatic machines
- **Perishability of F&V and milk : collecting, processing and logistics**
- **Economies of scale in processing, marketing**, thus acquiring higher bargaining power and higher product prices
- **Stable income all year round**: resort, attractive learning experienced place for tourists; processed (exotic) products and new processed products

- **A heterogeneous group of institutions enabling aggregation**
  - Community enterprise law,
  - Food product and safety standards, e.g., GI, Organic Thailand, Halal, NFI-HACCP
  - Technology, esp online technology, ERP , etc.
  - Fair trade and higher product price
  - ESG for firms in the stock markets
  - Gov't support: strengthening technological, marketing, financial capacity
  - YouTube video clips and university online promotion of healthy products produced by farmer2 community groups
- **Some (mostly vegetables) tailored to high end niche markets and healthy food demand**
  - Niche products
  - Environmental friendly
  - Examples: organic rice, low glycemic rice, aromatic, etc.
  - Cosmetics, cookies, fusion Thai dessert using modern durable package
- **The boom in tourist industry in Thailand**

Selected Farmer groups	Founded by	Type	Products	Vital Trading Partners
Clean Conversion (Kamphaeng Phet)	Farmer	Community Enterprise	Tubtim Chumphae Organic Rice, RiceBerry Rice etc.	Government Store, MOU with Restaurants/ Private Companies
Pracharat rice large plot project Doembang Nangbuat	Rice Department & CP	Community Enterprise	Healthy Rice (Low Sugar)	Large Company (CP Intertrade: Royal Umbrella Rice)
Chia Meng Marketing Co.,Ltd	Rice Mill	Company Limited & farmer group	Thai Jasmine rice RiceBerry Rice etc.	Department Store
Non Khwao (Khon Kaen Province)	Farmer (Former village head)	Farmer Group (legal entity)	Mostly Organic Local vegetables	Modern Trade (Lotus-TESCO) Local Market (for low-grade products)
Putawan Organic Farm (Amnat Charoen)	Farmer	Limited Partnership	Organic salad vegetables, Organic Local vegetables	Modern Trade (Tops supermarket) Various Local Market
Chanthaburi Group of Durian Farmers	Farmer	Community Enterprise	Durian with Good Agricultural Practice Standard	Export to China
Chachoengsao Provincial Mango Farmers Club Cooperative	Chachoengsao provincial agriculture and cooperatives office , Ministry of Agriculture and Cooperatives (TH)	Cooperative	Mango with Good Agricultural Practice Standard	Export to China Korean USA Europe etc. Modern trade (such as Siam paragon, Emporium and The mall)

3. Aggregation of Farmers

(Reasons of joining group, outcome, obstacles)

Results from the 2021 small farmer survey by TDRI

-rice, cassava, sugar cane, rubber

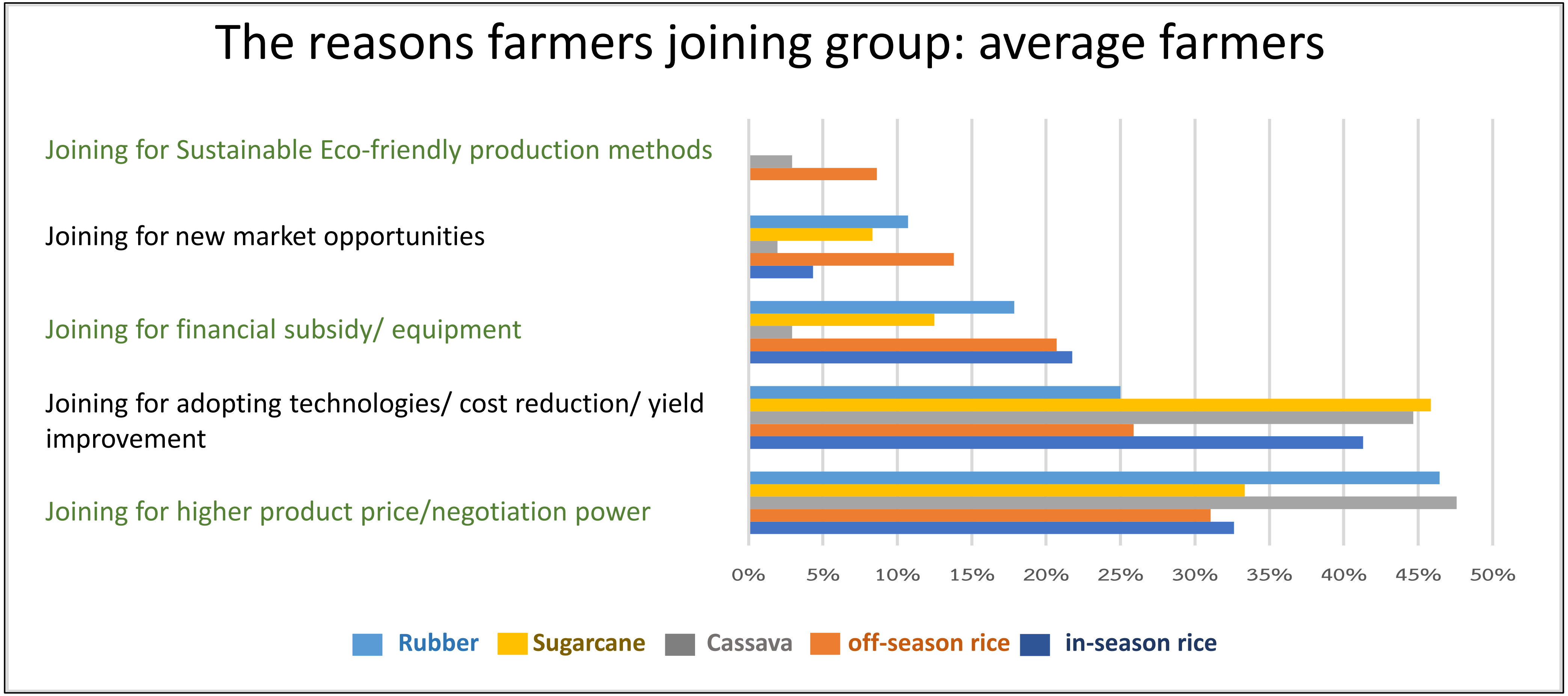
From 1,517 samples, there are 737 farmers who join farmer groups

The number of farmers who join farmer group

Categories of Farmers	In-season rice	Off-season rice	Cassava	Sugarcane	Rubber	Total (Person)
• **Average Farmers (Including Control Groups)**	46	58	103	72	140	419
(Percentage)	39	47.5	64.4	61	63.9	56.9
• **Professional Farmers (Including Nayod Group)**	72	64	57	46	79	318
(Percentage)	61	52.5	35.6	39	36.1	43.1
• **All Farmers**	118	122	160	118	219	737

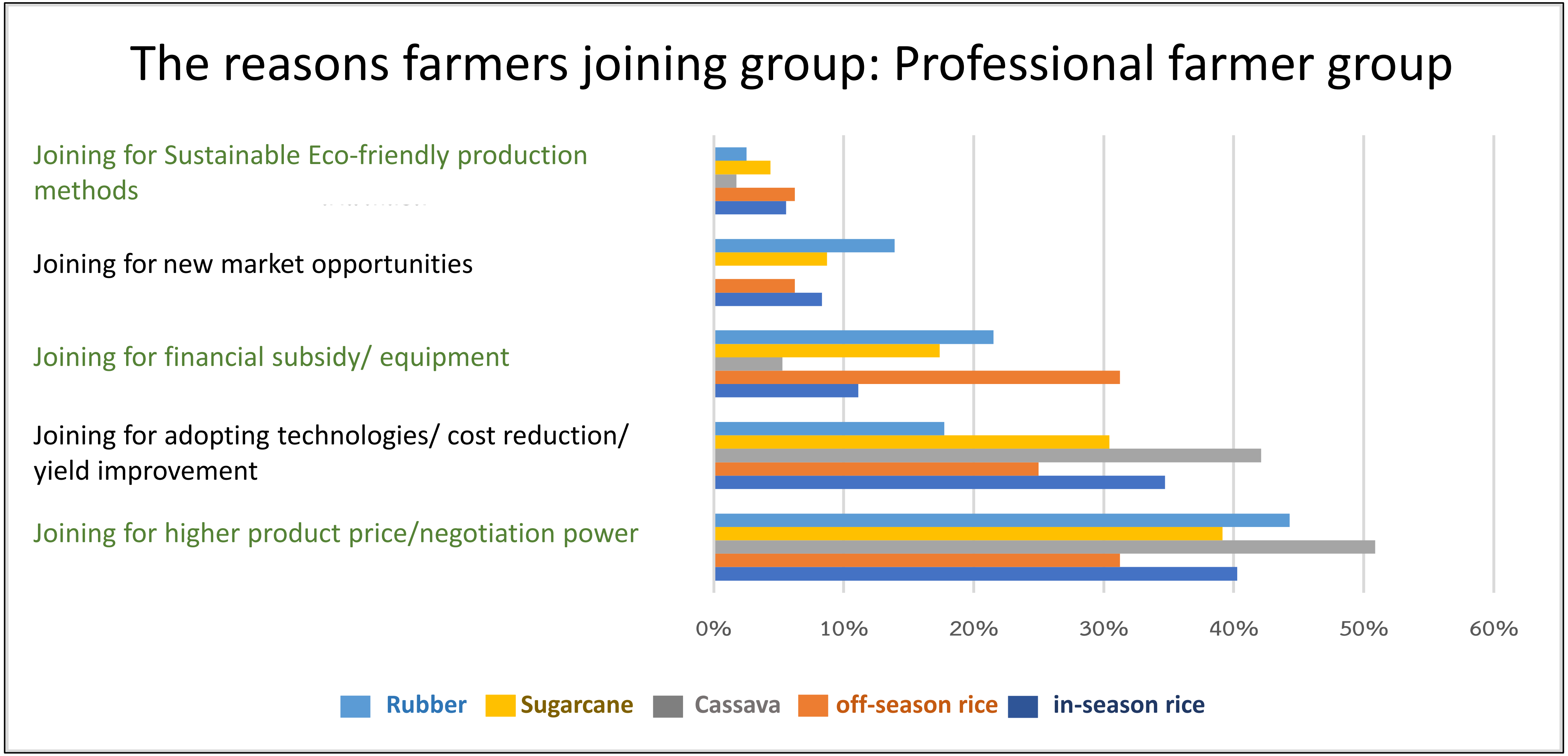
Source: the Survey of TDRI (2022)

Most average farmers join groups because of the benefits of higher product price/negotiation power as well as adopting technologies/ cost reduction / yield improvement



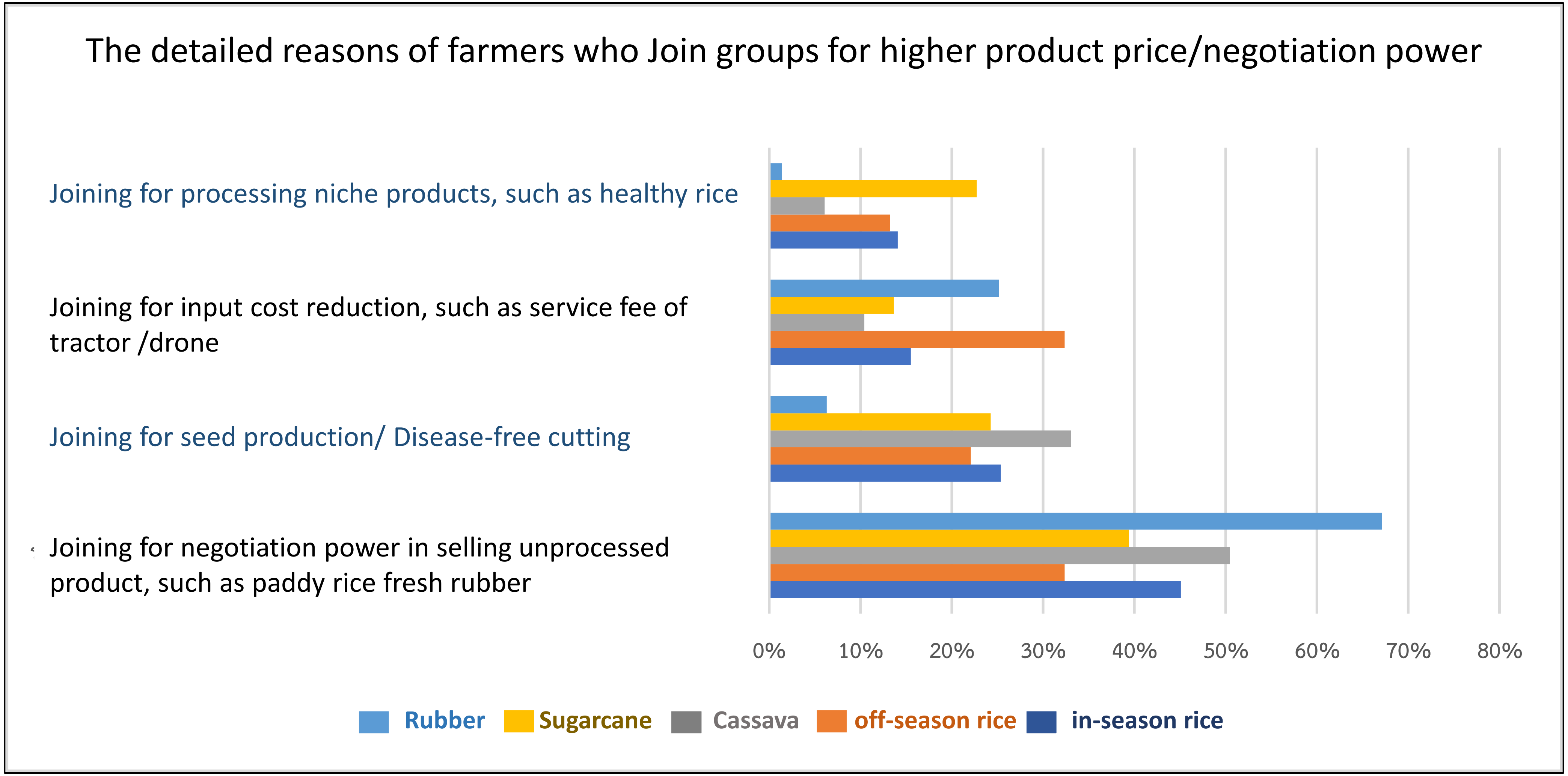
Source: the Survey of TDRI (2022)

Most professional farmers join groups because of the benefits of higher product price/negotiation power as well as adopting technologies/ cost reduction / yield improvement



Source: the Survey of TDRI (2022)

For farmers who join groups for higher product price, the majority of them want negotiation power in selling unprocessed products

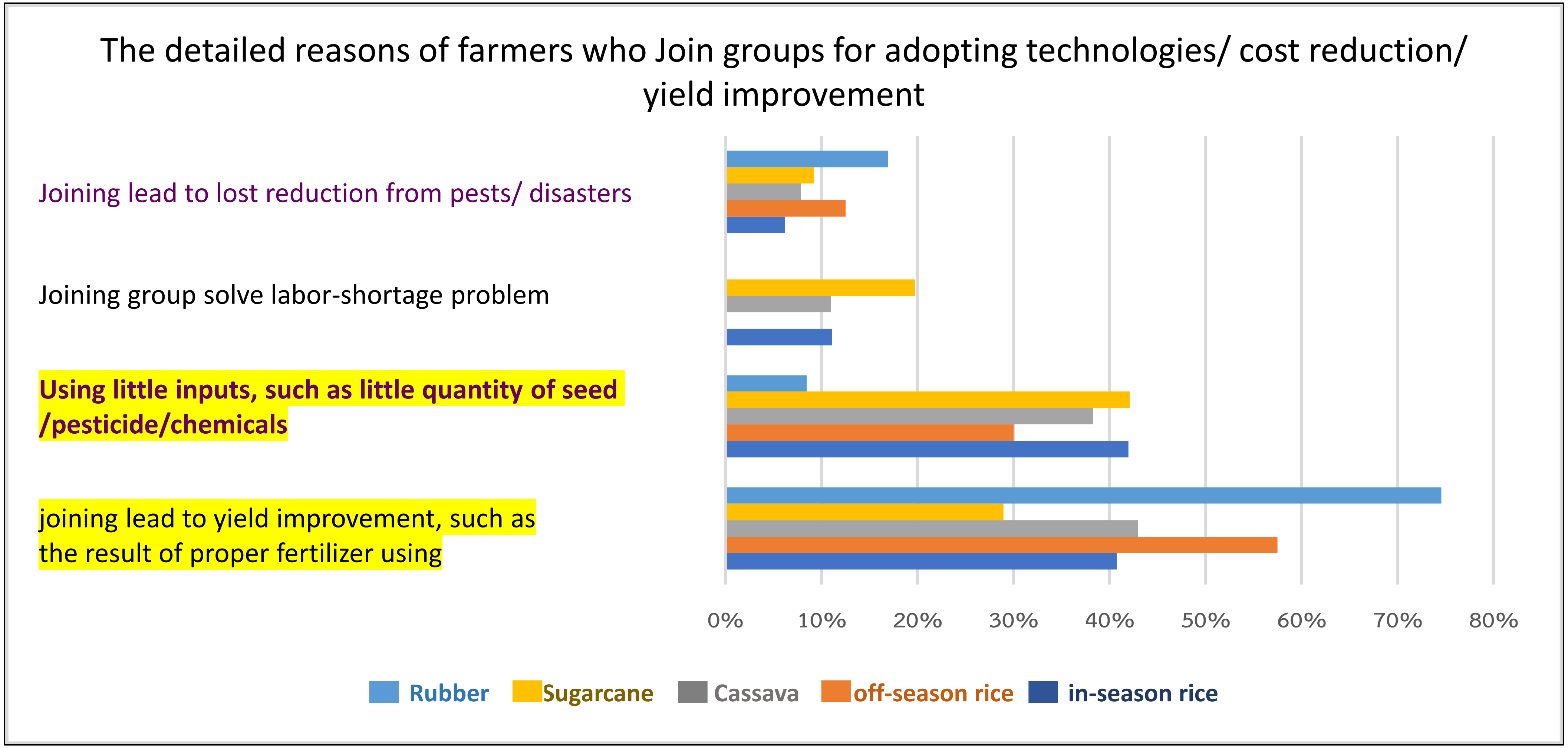


Source: the Survey of TDRI (2022)

For farmers who join groups adopting technologies/ cost reduction/ yield improvement,

the majority of them want guidelines in yield improvement (such as how to use fertilizer properly)

Together with saving of production inputs (such as using less seed/chemicals).



Source: the Survey of TDRI (2022)

Aggregation of Farmers

(outcome from joining the groups)

Most farmers are better off from higher yield/higher value (32.82%) and cost reduction (27.65%)

Meanwhile, 23% of them are not sure about the result and only 16% see nothing changed.

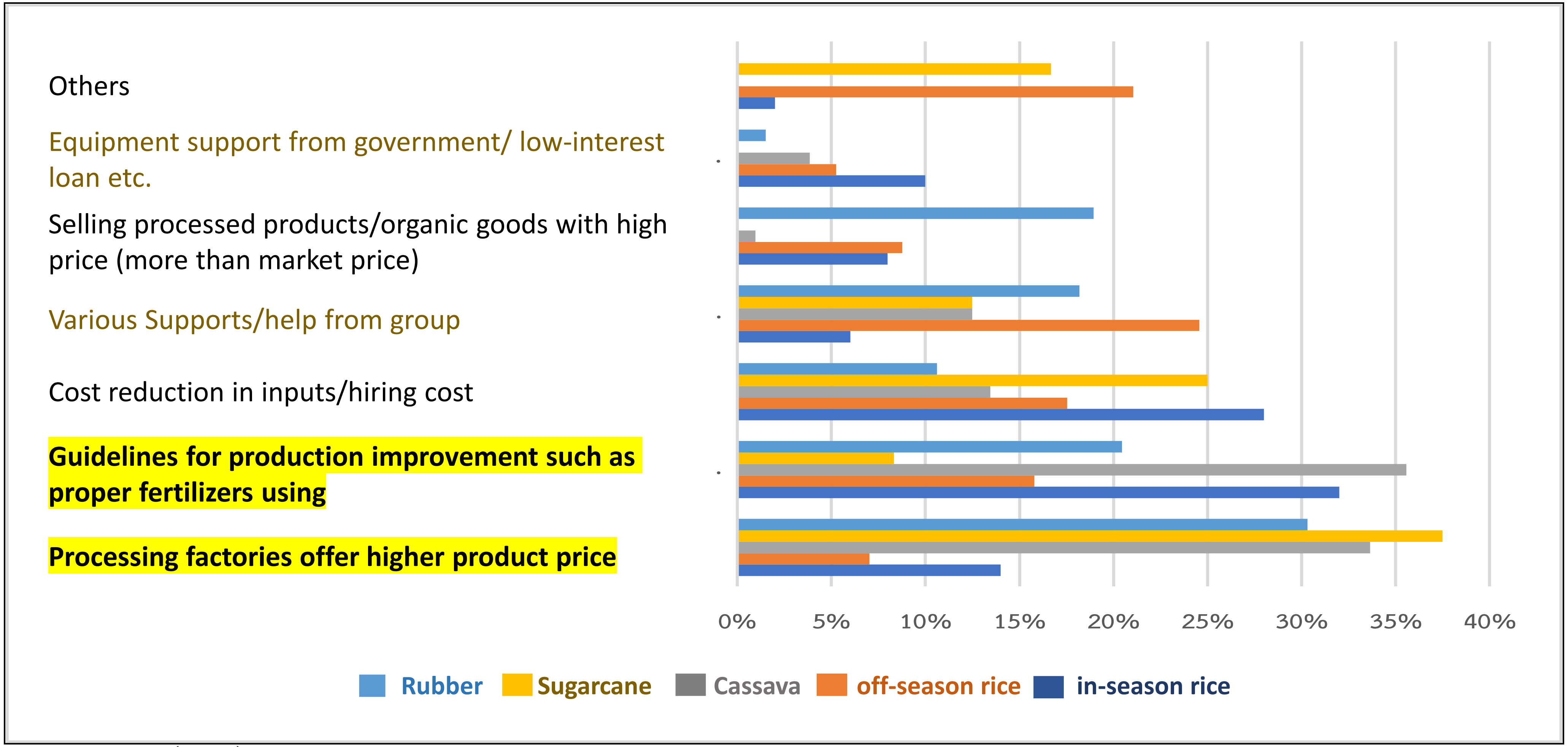
The outcome of joining groups

	In-season rice	Off-season rice	Cassava	Sugarcane	Rubber	Total (Person)	Percentage
Better off from higher yield/ higher value	14	12	38	7	56	127	*32.82*
Better off from cost reduction	32	25	26	7	17	107	*27.65*
Not sure	7	21	14	32	15	89	*23.00*
Not change	5	5	6	19	28	63	*16.28*
Worse off	1	0	0	0	0	1	*0.26*
รวม	59	63	84	65	116	387	*100.00*

Source: the Survey of TDRI (2022)

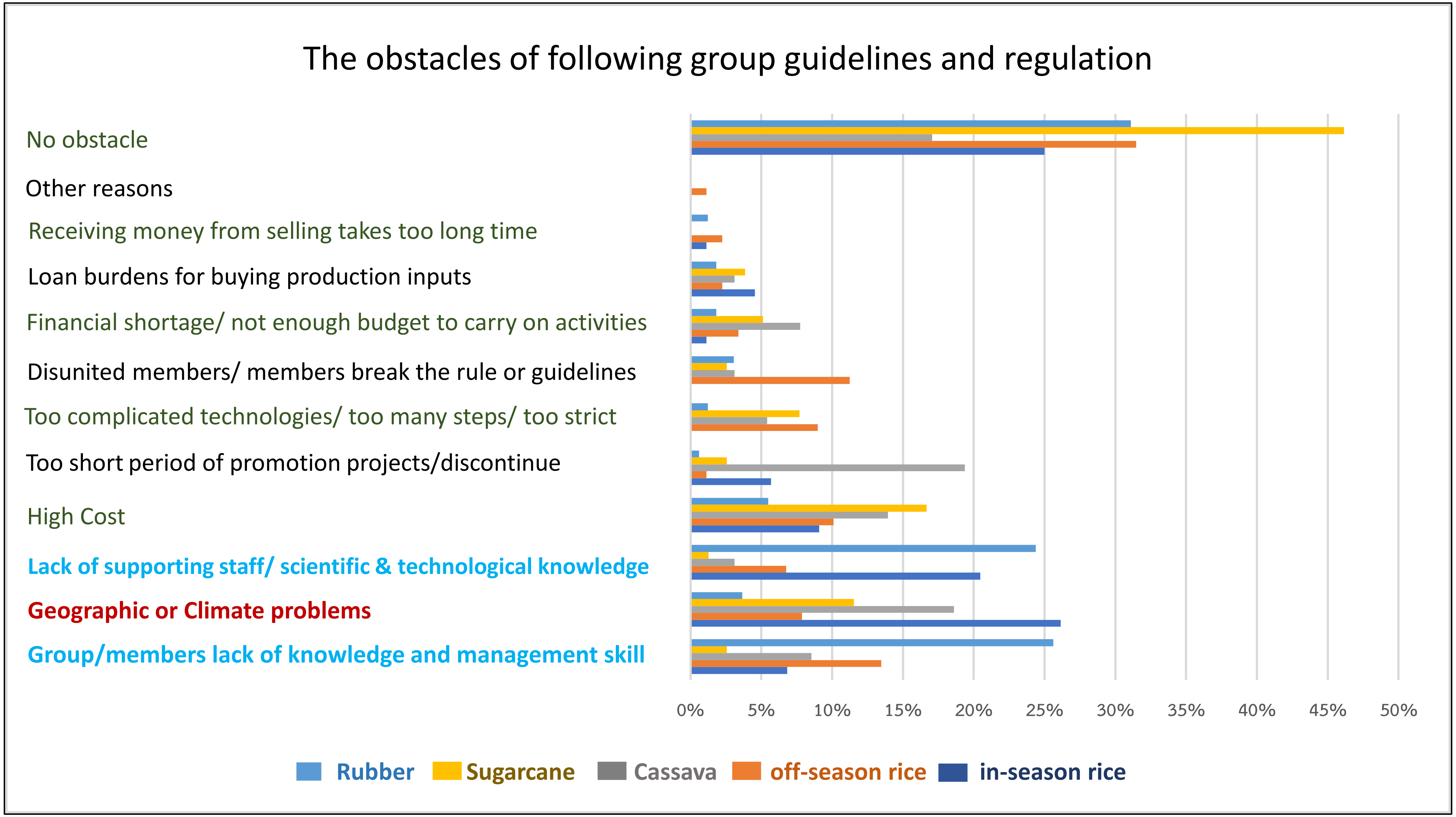
Most farmers (Rubber, Sugarcane, Cassava and in-season rice) are better off because processing factories offer higher product price and they follow the groups' production guideline. Meanwhile, most off-season farmers are better off because of various supports/help from groups.

The reasons of yield improvement/cost reduction/higher value of products from joining groups



Source: the Survey of TDRI (2022)

Most farmers see **no obstacle of following group guidelines and regulation**. However, in **some farmers they think the groups are lack of knowledge in scientific and management skills, as well as groups face some geographic or climate problems**



Source: the Survey of TDRI (2022)

Outcome of Technology Adoption

(estimated by the Difference-in-Difference method- a natural experiment)

rice

: Dry seeding method (Nayod)

yield	Coef.	P>t
treatment_nayod	-57.00***	0
year2018	-25.11*	0.09
year2019	-45.85***	0
year2020	-20.94*	0.07
year2021	-19.27*	0.09
treatmentnayod_year2018	119.09***	0
treatmentnayod_year2019	148.43***	0
treatmentnayod_year2020	121.19***	0
treatmentnayod_year2021	100.60***	0
age	-0.11	0.73
rain	-0.01	0.77
province_ubonratchathani	31.96	0.19
sex_female	6.29	0.33
education_secondary	-8.28	0.31
education_university	-1.2	0.96
number_field	1.98	0.31
farm_rai	-0.01	0.98
fam_member	4.32	0.27
watersource_all	39.55***	0.01
fertilizer_b	0.02***	0
land_titledeed	-31.61**	0.03
land_spk	-28.61***	0.01
land_family	21.12	0.24
land_public	71.84*	0.07
diversification	31.76***	0.01
remittance	-11.92	0.43

From Diff-in-Diff (OLS) analysis,

Nayod method can improve yield significantly.

Using good seed and knowledge from universities, government staff and processers can also affect yield in positive way.

yield	Coef.	P>t
tech_shiftcrop	-16.99*	0.06
tech_goodseed	32.90***	0.01
tech_pest_bio	-29.05***	0.01
tech_machine1	-40.42*	0.07
ino_allmobile	-70.33*	0.1
l_universities	73.40***	0
l_goverment	29.31***	0
l_processer	22.14***	0
l_internetmanual	-6.67	0.52
l_neighborprofarmer	-13.08	0.58
_cons	315.78***	0
N=642 R-squared = 0.44 Adj R-Squared=0.40		

Source: Analysis from the Survey of TDRI (2022)

rice

: Plotting (Nayod)

The result of Diff-in-Diff (OLS) analysis shows that **the nayod adoption can decrease cost significantly**. Moreover, the other variables, including university education, SPK land,using machine and learning from university staff, are also affect cost negatively.

cost	Coef.	P>t
treatment_nayod	655.79***	0
year2020	216.99***	0
year2021	280.35***	0
treatmentnayod_year2020	-588.77***	0
treatmentnayod_year2021	-598.78***	0
age	-0.78	0.68
province_ubonratchathani	46.6	0.74
sex_female	94.62***	0.01
education_secondary	-22.84	0.63
education_university	-346.56***	0.01
number_field	-7.01	0.54
farm_rai	-0.78	0.62
fam_member	-14.78	0.51
watersource_all	2.17	0.98
fertilizer_b	0.08**	0.02
land_titledeed	-42.8	0.59
land_spk	-179.79***	0.01
land_family	193.58**	0.05
land_public	189.37	0.4
diversification	-38.09	0.54
remittance	-1.929	0.98

cost	Coef.	P>t
tech_shiftcrop	80.62	0.14
tech_goodseed	80.64	0.25
tech_pest_bio	75.67	0.22
tech_machine1	-267.54**	0.05
ino_allmobile	-205.3	0.4
l_universities	-255.55***	0
l_goverment	20.3	0.62
l_processer	36.97	0.37
l_internetmanual	-60.76	0.31
l_neighborprofarmer	417.07**	0.03
_cons	1235.51***	0
N = 474 R-squared = 0.41 Adj R-squared = 0.36		

Source: Analysis from the Survey of TDRI (2022)

Sugarcane

The Diff-in-Diff (OLS) result implies that water-dripping technology improve yield significantly.

Moreover, technologies including Smart water, drone are also affect yield positively.

And Knowledge from university staff affect yield in positive way .

yield	Coef.	P>t
water	-4053.24***	0
fertilizer	842.66	0.24
waterxfertilizer	-150.76	0.89
water2018	3040.29**	0.02
water2019	2969.36*	0.01
water2020	2719.78***	0
water2021	3011.67***	0
fertilizer2018	-4194.74**	0.02
fertilizer2019	-4431.33***	0
fertilizer2020	-857.79	0.33
fertilizer2021	0	
waterxferz2018	-696.28	0.72
waterxferz2019	-1026.73	0.59
waterxferz2020	39.99	0.97
waterxferz2021	-579.69	0.62
t2018	-1160.46	0.39
t2019	-303.02	0.78
t2020	661.13	0.31
t2021	1473.75**	0.03
rain	-2.54	0.81
rain_square	0	0.92
female	411.88	0.12
age	34.10**	0.03
education_secondary	-488.61	0.2
education_university	469.31	0.16

yield	Coef.	P>t
farmmember	300.37**	0.04
remittance	1026.83	0.4
diversification	-732.08***	0
Watersource_all	2012.92***	0
northeast	1638.28***	0
farm_rai	1.03	0.26
land_rent	435.9	0.35
land_public	-956.56	0.21
land_spk	730.18**	0.03
fertilizer_cost	0.1	0.52
tech_landpattern	1650.38	0.14
tech_goodseed	112.95	0.81
tech_sugar_keep3crop	-183.07	0.66
ino_smartwater	1239.93*	0.01
ino_drone	1407.26***	0
ino_allmobile	25.97	0.97
l_universities	895.82**	0.02
l_goverment	46.12	0.89
l_processer	-781.32**	0.02
l_internetmanual	-768.89*	0.07
l_neighborprofarmer	-977.76	0.6
_cons	8259.15	0.24
N = 419, R-squared = 0.24, Adj R-squared = 0.18		

Source: Analysis from the Survey of TDRI (2022)

Cassava

For waxy cassava, adopting water-dripping leads to yield improvement as well as cost reduction

The difference of yield (kg./rai)		Average Yield (kg./rai)			Average Cost (Baht/rai)
		Before adaptation	After adaptation	Diff-in-Diff	After adaptation
1	Control group (raining cassava)	2912.50	3393.68		4527.41
	Tech group (water-dropping cassava)	3076.92	3742.31		4832.62
	Diff between Tech group and Control group	164.42	348.62**	184.2	305.21**
2	Control group (chemical raining cassava)	3090.91	3475.76		4746.45
	Tech group (organic raining cassava)	2614.29	2840.91		3567.75
	Diff between Tech group and Control group	-476.623*	-634.8***	-158.22	-1178.70***
3	Control group (raining cassava)	2782.35	3415.48		4659.13
	Tech group (Waxy raining cassava)	4000.00	4510.53		3938.75
	Diff between Tech group and Control group	1217.65**	1095.05***	-122.6	-720.38***
4	Control group (Waxy raining cassava)	5000.00	3456.69		4637.09
	Tech group (Waxy water-dropping cassava)	3666.67	4482.35		3972.86
	Diff between Tech group and Control group	-1333.33**	1025.659***	2358.99***	-664.23***

Source: Analysis from the Survey of TDRI (2022)

4. Selected 11 case studies of successful farmer groups

Products

- Rice, food products and cosmetics: 3 cases
- Safe & organic vegetables 2 cases
- Fruits 3 cases
- Tourism community enterprises 3 cases

Reasons, activities , outcome

- Pain points
- Group activities
- Investment
- Achievement: profit and cost

High quality rice group, using dry seeding tech

Pain Point

Group Activities

Result

Key Activities for Adding Value

Hong thong Nayod Project : Plotting method

Chia Meng Marketing Co.,Ltd

Northeast Thailand

Founded by Merchant

The yield of rice is low but the cost of rice cultivation is high

Changing cultivation method to Plotting (Nayod)

- Use a small amount of seed [less than 12 kg/Rai (75 kg/hectare)
- It is easy to get rid of weeds

Higher yield

in 2015, the average yield of 200 farmers increased from 451 kg./rai to 559 kg./rai

Lower cost

the average cost of 200 farmers decreased from 3,060 Baht/rai to 2,575 Bahr/rai

- There are seeder machines for farmers
- Investing in high-quality seed for members
- Training program for new members

Healthy rice group

skip

Pain Point | Group Activities | Result | Key Activities for Adding Value

Clean Conversion (Kamphaeng Phet)

Northern Thailand

Founded by Farmer

Breed seeds are expensive but lower quality

Producing foundation seeds, registered seeds and improving rice production continuously

Rice price is low

Changing production from chemical rice to healthy rice and GAP rice

Gross profit:
3,000 - 5,100 Baht/rai

The price of organic rice is about 2 times higher than conventional rice.

- Standard certification (GMP & Food and Drug administration)
- Mill certification from China
- guaranteed price of 10,000 - 13,000 baht/ton of fresh rice
- Training program for new members

Key Activities for Adding Value:

- Standard certification (GMP & Food and Drug administration)
- Mill certification for export products to China
- MOU with government store restaurants as well as Supplier of modern trade
- expanding partnership and knowledge by cooperation with academic staffs (Kamphaeng Phet Rajabhat University in matching Thai customers)

Example case: Healthy Rice

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Pracharat rice large plot project Doembang Nangbuat District, Suphan Buri Province

Central Thailand

Founded by Rice Department & Mill

Pain Point

Loss from Pest Outbreak

Support

CP Group
(Royal Umbrella Rice)

Group Activities

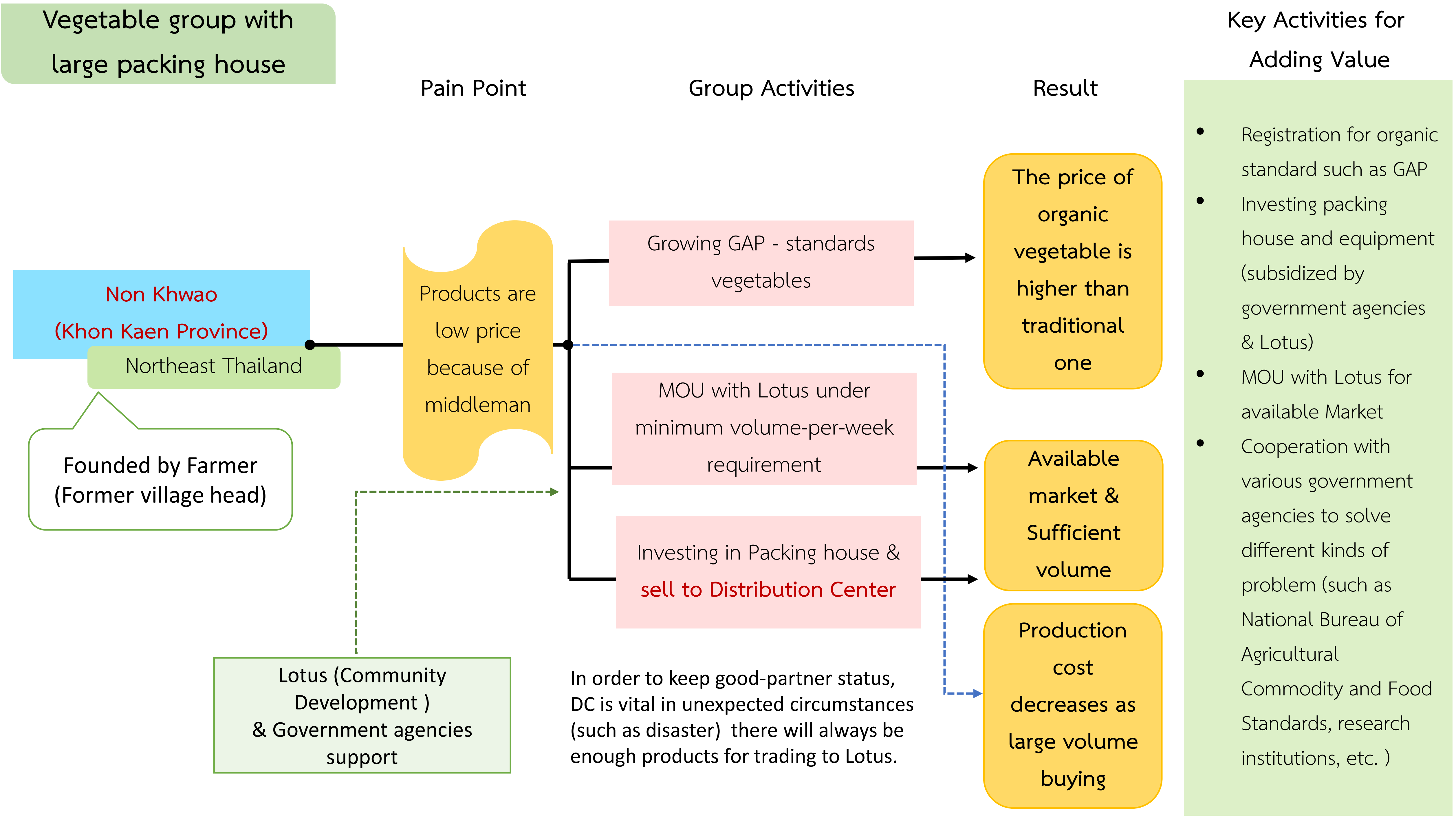
- using good-quality seeds
- Production with GAP Standard
- Growing rice in the same line with market demand (low-sugar rice)
- Establishing learning center for production efficiency
- Adopting technologies & BCG Model (land levelling laser, Alternative wet and dried method, soil analysis, application, Integrated Pest Management etc.)
- buying inputs with mass volume
- Diversification by growing vegetables & livestock

Results

- Available Market
- Higher yield/higher profit
- Cost reduction
- Able to control pest circumstance

Key Activities for Adding Value

- Contact Farming between farmer group and Modern Trades for available market (CP Group)
- Registration for organic standard , such as GAP
- Adopting new technologies & scientific innovation (such as soil analysis application)
- Training program for new members


Vegetable group with large packing house
Pain Point
Group Activities
Result
Key Activities for Adding Value
Non Khwao
(Khon Kaen Province)
Northeast Thailand
Founded by Farmer
(Former village head)
Products are low price because of middleman
Growing GAP - standards vegetables
MOU with Lotus under minimum volume-per-week requirement
Investing in Packing house & sell to Distribution Center
The price of organic vegetable is higher than traditional one
Available market & Sufficient volume
Production cost decreases as large volume buying
Lotus (Community Development)
& Government agencies support
In order to keep good-partner status, DC is vital in unexpected circumstances (such as disaster) there will always be enough products for trading to Lotus.
Registration for organic standard such as GAP
Investing packing house and equipment (subsidized by government agencies & Lotus)
MOU with Lotus for available Market
Cooperation with various government agencies to solve different kinds of problem (such as National Bureau of Agricultural Commodity and Food Standards, research institutions, etc.)

Organic vegetable group using Green House

Pain Point | Group Activities | **skip** | Results | Key Activities for Adding Value

Putawan Organic Farm (Amnat Charoen Province)

Northeast Thailand

Founded by Farmer

Pain Point: Health problem from using chemicals

Group Activities

growing organic vegetables (chemical-free)

- Categorize to 4 grades including

A : Premium vegetables for selling modern trade

B : random-size vegetables

C : Processed vegetables for Ready to Eat

By product : vegetable scraps for feeding animals

Growing vegetables in greenhouses

1 household must invest at least 6 greenhouses (to harvest products every week continuously)

Changing methods for higher yield and cost reduction

- Producing seeds more than 10 breeds with higher Germination rate but lower price (less than market price 50%)
- Raising Wakil cattle for biomass from waste (Economies of Scope)

Results

Farmers' health are better

Organic vegetable price is higher than traditional one

Available market & sufficient volume

Cost reduction

Gross profit: 15,000 Baht/Crop/greenhouse

Key Activities for Adding Value

- Contact Farming between farmer group and Modern Trades for available market (Tops supermarket) and also selling to various local markets
- Registration for organic standard , such as IFOAM (fee: approximately 100,000 baht/year), ACT Organic Foundation
- Training program for new members

Fruit for export group: Durian

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Chanthaburi group of durian farmers

Eastern Thailand

Founded by Farmer

Pain Point

Volume Shortage, not enough quantity for Export

Group Activities

Minimum volume requirement

- Group do not need to expand number of members but focus on high-quality members.

Knowledge Exchange

- For example, production inputs and product improvement (weight & volume) for reasonable price and not be undersold by tradesmen.

Results

The volume of Durian is enough for export

Gross profit:
10,200 Baht/ton

Key Activities for Adding Value

- Determining the minimum amount of produce for sale to packing house (Lhong) for export abroad (especially China)

Mango for export group

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Chachoengsao Provincial Mango Farmers Club Cooperative

Eastern Thailand

Founded by Chachoengsao provincial agriculture and cooperatives office

Pain Point

Product price is low

Group Activities

- Planting Mango with GAP Standard
- Adopt QR code Technology for product traceability
- buying large qualtity of equipments and negotitating with input suppliers
- Loans (interest rate: 4%) and Deposit activities (2%) for members

Results

Higer selling price
Premium grade:
70 – 80 Baht/kg.
Normal grade:
30 – 40 Baht/kg.

Lower buying price for inputs and equipment (Members save 30 – 50%)

Key Activities for Adding Value

- Planting mango with GAP standards
- Adoptinf new technologies (Such as QR code)
- Guideline by trainner
- MOU with Foreign Company (For Export) and modern trades (Siam paragon, Emporium and The mall)

Example case: Tops Supermarket

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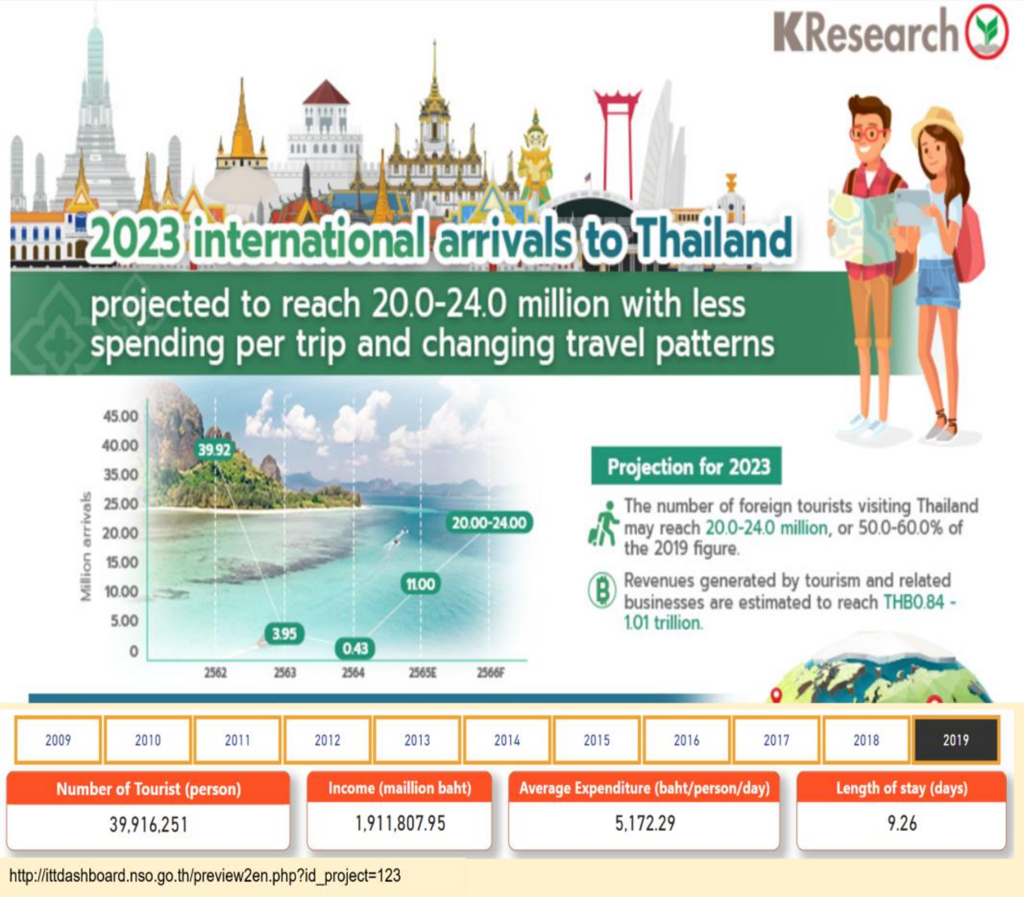
There are open zones for farmers to sell their own products directly to customers in the Tops supermarket



Ex. tourist-oriented farmer group

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Sam Pran Model

Nakhon Pathom Province

Pain Point

Expanding a hotel and restaurant business with a focus on sourcing high-quality raw materials

Only income from the vegetable market selling to tourists is worth 31 million baht/year.

Activities

cultivating organic vegetables, and adopting a zero-waste approach

- Premium vegetable production for Supermarkets (IFOAM)
- Other vegetables sold at the tourist market near the hotel. Standards certified by the community
- Utilizing vegetable scraps for animal feed.
- by farmers in the area around the hotel, 11 groups, 200 people

Establishing an organic agriculture learning center

Result

reduce the cost of purchasing uncertain-quality ingredients

increasing farmer income from tourist-oriented

contributes to environmental improvement

Establishing an online platform for buying and selling organic products

Investments

- Requesting organic certification standards, such as IFOAM, costs approximately 100,000 baht/year (ACT Organic Foundation).
- Establishing standards that are self-certified for farmers who do not want to sell their products in the supermarket system.
- Implementing a mentorship program for new members

Ex. tourist-oriented farmer group

skip

Ban Na Pan Jan Homestay

Sukhothai Province

Pain Point

- Desire to preserve the traditional way of life.
- Aiming to provide a year-round income for local farmers.
- Encouraging younger generations to return to their hometown.

Activities

A group of women engage in weaving with fabric fermented mud

- During the off-season from farming, they established a weaving business OTOP (One Tambon One Product) enterprise.
- The group leader had the opportunity to learned OTOP and homestay programs in Japan.

29 homestay units

- Some investments were made to renovate or build new homes to accommodate tourists.
- Limited availability, with bookings required in advance.

Result

Increased income for the community.

Some younger generation had work within the village.

The preservation of local culture and traditions.

Younger generation returned to created their own business in the village.

Investments

- Group formation and strengthening took more than 17 years.
- A community-wide agreement to maintain the local environment.
- Division of labor based on individual expertise, with a shared communal kitchen and standardized service quality.

ตัวอย่างกลุ่มเกษตรกร ท่องเที่ยว

Pain Point

แนวทางกิจกรรมของกลุ่ม

ผลลัพธ์

สิ่งที่กลุ่มต้องลงทุนเพื่อเพิ่มมูลค่า

สามพรานโมเดล

จ.นครปฐม

ต่อยอดธุรกิจโรงแรมและร้านอาหารต้องการวัตถุดิบที่ดี

เฉพาะรายได้จากตลาดผักที่ขายนักท่องเที่ยวมีมูลค่า 31 ล้านบาท/ปี

ปลูกผักเลี้ยงสัตว์อินทรีย์ ในแนวทาง Zero waste

ผักพรีเมียม แพ็คขายซูเปอร์มาเก็ต ใช้ในร้านอาหารของโรงแรม มาตรฐาน IFOAM
ผักทั่วไป ขายในตลาดนักท่องเที่ยวบริเวณโรงแรม มาตรฐานรับรองโดยชุมชน
By product :เศษผักใช้เลี้ยงสัตว์
โดยเกษตรกรในพื้นที่รอบๆ โรงแรม จำนวน 11 กลุ่ม 200 คน

เป็นศูนย์เรียนรู้ให้กับผู้ที่สนใจการทำเกษตรอินทรีย์

ต้นทุนของโรงแรมถูกลง

เกษตรกรสมาชิกรายได้สูงขึ้น

สิ่งแวดล้อมรอบโรงแรมดีขึ้น

สามารถขยายเครือข่ายเป็นแพลตฟอร์มซื้อขายผลิตภัณฑ์อินทรีย์

- การขอมาตรฐานรับรองผักอินทรีย์ เช่น IFOAM ค่าธรรมเนียมประมาณ 100,000 บาท/ ปี โดยมูลนิธิมาตรฐานเกษตรอินทรีย์ (ACT Organic Foundation)
- เพิ่มมาตรฐานที่รับรองกันเองในชุมชนสำหรับเกษตรที่ไม่ต้องการขายสินค้าในระบบซุปเปอร์
- การมีระบบพี่เลี้ยงสำหรับสมาชิกใหม่

ตัวอย่างกลุ่มเกษตรกร ท่องเที่ยว

ทุ่งธรรมนา

จ.นครปฐม

Pain Point

ขายในราคาที่เราพอใจ ทำเท่าที่เราทำได้ +
ลูกชาย 2 คน ต้องการกลับมาทำงานที่บ้าน

แนวทางกิจกรรมของกลุ่ม

ปลูกข้าว-ผัก-ผลไม้อินทรีย์ ภายใต้โครงการสามพรานโมเดล

พื้นที่ 30 ไร่ แบ่งพื้นที่ปลูกพืชหลายชนิด แต่ละชนิดมีปริมาณไม่มาก
ขายสินค้าให้นักท่องเที่ยวที่มาสวนสามพรานและงานอีเวนท์ของมูลนิธิสังคมสุขใจ

จัดกิจกรรมเรียนรู้สำหรับเด็ก

ต้องเตรียมพื้นที่ไว้รองรับการบริการแก่นักท่องเที่ยว มีทั้งเป็นกิจกรรมของโรงเรียนที่เป็นหมู่คณะ และครอบครัวที่พาลูกมาในวันหยุด กลุ่มลูกค้ามีขนาด 50-300 คนต่อครั้ง

ผลลัพธ์

เกษตรกรสุขภาพดีขึ้น

ราคาผักอินทรีย์สูงกว่าท้องตลาด

ลูกชายสามารถกลับมาทำงานที่บ้านเต็มเวลา

สิ่งที่กลุ่มต้องลงทุนเพื่อเพิ่มมูลค่า

- การบริหารงานระหว่างๆ ครัวเรือนต่างๆ ที่เข้ามาร่วมให้บริการ เพราะไม่สามารถทำงานทั้งหมดเพียงรายเดียวได้ จำเป็นต้องดึงชุมชนเข้ามามีส่วนร่วมในการให้บริการลูกค้า โดยแบ่งกิจกรรมบางอย่างให้ดูแล
- การประชาสัมพันธ์กิจกรรมของฟาร์มทางอินเตอร์เน็ต

ตัวอย่างกลุ่มเกษตรกร ท่องเที่ยว

Pain Point

แนวทางกิจกรรมของกลุ่ม

ผลลัพธ์

สิ่งที่กลุ่มต้องลงทุนเพื่อเพิ่มมูลค่า

โฮมสเตย์บ้านนาปั้นจั่น

จ.สุโขทัย

- ต้องการอนุรักษ์วิถีชีวิต
- ทำให้เกษตรมีรายได้ตลอดปี
- ต้องการให้ลูกหลานกลับมาอยู่บ้าน

กลุ่มแม่บ้านทอผ้า ทำผ้าหมักโคลน

- พื้นที่ทำนาปี จะมีช่วงเวลาว่างจากฟาร์ม ตั้งวิสาหกิจทอผ้าจนเป็น OTOP ที่มีชื่อเสียงระดับประเทศ
- หัวหน้ากลุ่มได้รับโอกาสไปดูงาน OTOP และ โฮมสเตย์ ที่ญี่ปุ่น

โฮมสเตย์ 29 หลัง

- ต้องลงทุนปรับปรุง หรือสร้างบ้านใหม่ในพื้นที่ของตัวเองเพื่อรองรับการมาพักของนักท่องเที่ยว
- รับลูกค้าจำกัด ต้องจองล่วงหน้า

รายได้เพิ่มขึ้น

ลูกหลานบางส่วนมีงานทำในหมู่บ้าน

สามารถอนุรักษ์วัฒนธรรมท้องถิ่น

ลูกหลานกลับมาอยู่บ้านเพิ่มขึ้น

- การรวมกลุ่มให้เกิดความเข้มแข็งเป็นงานที่ต้องอาศัยเวลา กลุ่มใช้เวลาล้มลุกมากว่า 17 ปี
- มีข้อตกลงร่วมในชุมชนในการรักษาสภาพแวดล้อมของชุมชนให้น่าอยู่ มีความเป็นธรรมชาติ
- แบ่งงานกันทำตามความเชียวชาญ มีครัวกลาง สร้างมาตรฐานในการให้บริการ

5. Outcome of new generation-farmer groups

Direct impact on income & livelihood

- Adoption of new technology and regenerative agriculture results in less use of resources, seed and water, thus lower cost and higher net income
- With the support of supermarkets and agri-business firms, the FGs produce high value quality products for the niche markets
- Stable income all year round
- Employment generation in the rural community for young and old labor, e.g., vegetable packing houses, small manufacturing plants, etc.
- Reducing income gaps between agriculture and non-agriculture

Other impacts: home sweet home & ESG

- More environmental friendly production methods, less use of pesticides & herbicides
  - Groups obtain knowledge from supermarkets, rice mills, university professors
  - Agri-business firms have adopted the CSR and ESG in their management and encouraged farmer groups to do so
- Some groups have seriously adopted the adaptation strategies to deal with climate change, and may result in more resilient business
- Young and middle aged people head back to their farms since the Covid outbreak, bringing with them experience from non-agricultural sector
  - Pioneer in adopting new tech, market strategy, and management

6. Challenges: whether or not new aggregation models is sustainable and prosper in the future?

- Many farmer groups still produce low value products for the highly competitive markets, thus limiting their effort to expand the business
  - Yet there is a few FGs with innovative products
- Most farmers are aging rapidly, thus some FGs have smaller number of members
- Governance issues
- Management capacity, especially cash flow management
- Many farmer groups are in fact owned and run by the "true owner" of the business, not the group
  - For an income tax exemption reason
- Policy responses
- Unlike the Japanese, Thai people are individualistic partly because of culture and partly because of no serious natural shocks
  - That is why there is an increasing trend of small companies and startups in the rural areas, producing and selling fusion, exotic and innovative local food products

Richy Rice is a representative that conveys the way of life, culture, and livelihood of Thai people through "Sangyod Maung Phatthalung Rice",
a Geographical Indication (GI) rice product of Thailand and the EU

DITP Thai Trade Center NORTH AMERICA
Department of International Trade Promotion Ministry of Commerce Royal Thai Government

Richy Rice, organic rice crackers from Thailand – delicious and good for health

Crispy Rice Snacks made from Sangyod Rice, not fried, no added seasoning powder, low in sodium, gluten-free, suitable for kids and adults. They come in flavors like seaweed, almond chocolate, teriyaki sauce, sour and spicy wasabi, black pepper, and chili paste."

France, Netherland, China, Hong Kong,
Vietnam, Malaysia and Singapore

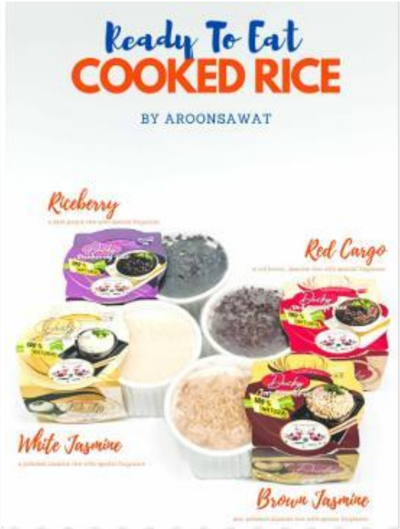
Salat Leaves
Thai Dessert

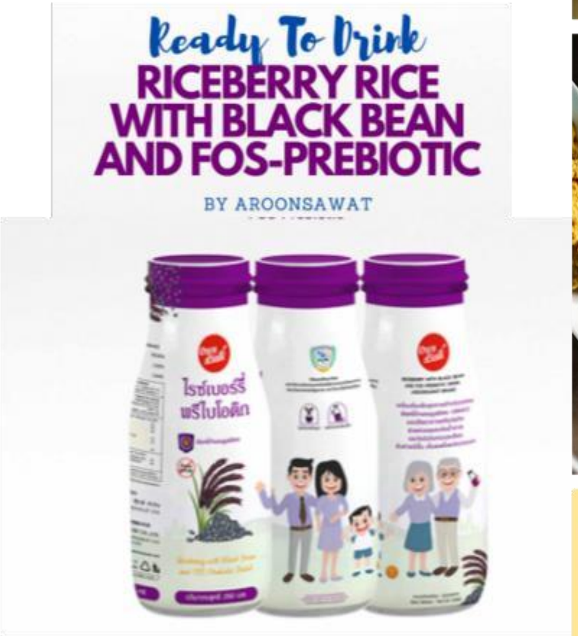
Streamed Sticky Rice covered with Salat leaves that do not require refrigeration, packaged in retort pouches, and processed to ensure long shelf life. There are 3 flavors including banana, pumpkin, and durian.

"Rose Araya" offers three flavors, including banana, pumpkin, and durian, in their products to provide consumers with convenience in consumption and the ability to choose unique flavors. Their products have an extended shelf life and excellent taste. They also aim to promote the creation of a new brand, expand their market both domestically and internationally, and participate in trade shows. They have found that Chinese customers have responded positively and shown interest in their products.

www.facebook.com/commerce/products/www.thaitradeusa.com/home/?p=21926 http://www.richyrice.com/ https://www.facebook.com/richyricehouse/

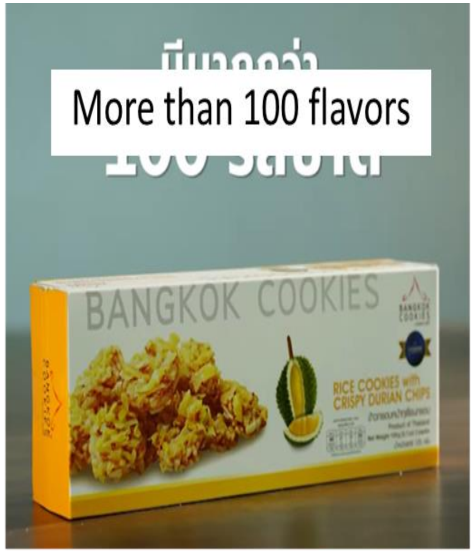
Source: KAMOL LERTRAT, Aran Patanothai, and SANUN JOGLOY. (2018). Pathways to Sustainable Food Innovation for Well-being and Challenges https://mgronline.com/smes/detail/9590000057048

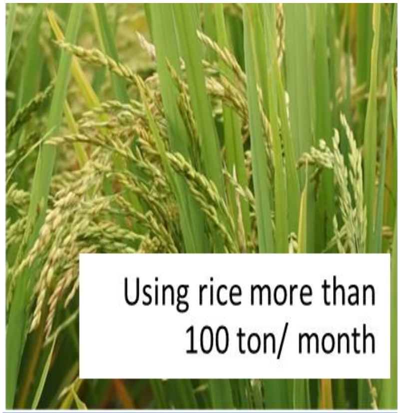




https://www.aroonsawat.com/

Thai Cookies exported to more than 30 countries around the world





The value of products derived from Thai rice that grows while creating value for society.

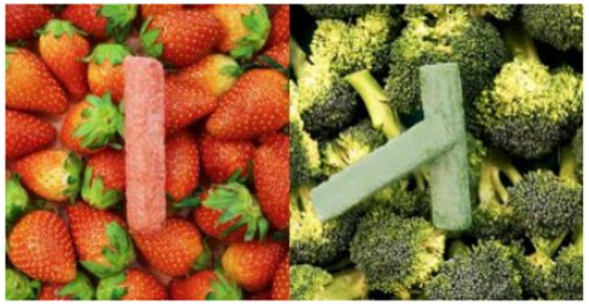
A variety of flavors, such as crab curry, tom yum, green curry, larb, durian, coconut, seaweed, chocolate, all of which are flavors that both Thai and international people are familiar with and enjoy."

- Can be stored for up to 1 year, odorless, no preservatives used
- took 4 years of research

[(39) Bangkok cookies แปลงโฉมข้าวแต๋นไทย ดังไกลระดับโลก - YouTube]

Source: Aran Pathanathai, Kamol Lertrat, Prasit Jaisil, and Boonrat Jongdee. (2013). "Looking into the Future of the Agricultural Research Funding System: A Case Study of Rice, Cassava, and Sugarcane." A project under the integration plan of Thailand 4.0's social aspect. Supported by the National Research Council of Thailand (NRCT)

The snacks made by the company “Termnature Industries Co., Ltd.” use organic rice, including jasmine rice, white rice, and rice varieties such as Hom Mali 105 and Rice berry, as their main ingredients. These ingredients are sourced directly from producers. The products are sold both domestically and internationally, with exports to more than 15 countries.



Baby Snacks

Our soft multigrain puff is made specifically for teething and perfectly for introducing solid food to a child. We also offer melt in mouth rice biscuits, made from brown jasmine rice together with real fruits and vegetables. These rice biscuits are in the perfect size for toddlers to hold in their hand so that they can learn how to eat by themselves.

ในมือได้เอง เป็นการสอนให้เด็กเรียนรู้วิธีการกินด้วยตัวเองทางอ้อม

Cream Filled Snack

Our cream filled products are crispy multigrain cereal bites full of melt in the mouth flavored filling inside. They are baked not fried and mainly made from authentic Thai brown jasmine rice and other conscientiously selected and sourced real ingredients. They contain no msg, no cholesterol, and gluten free.

Seasoning Snacks

Enjoy the crunchiness without feeling guilty
Our crispy brown rice calls are made from authentic Thai brown jasmine rice. Unlike other crunchy snacks available in the market, our rice balls are baked not fried and have low calories (with only 80 cal per bag). They contain no msg, no cholesterol, and gluten free.

www.grinnybite.com/products-services/

Source: Aran Pathanathai, Kamol Lertrat, Prasit Jaisil, and Boonrat Jongdee. (2013). "Looking into the Future of the Agricultural Research Funding System: A Case Study of Rice, Cassava, and Sugarcane." A project under the integration plan of Thailand 4.0's social aspect. Supported by the National Research Council of Thailand (NRCT)

Thank you
for your
attention

nipon@tdri.or.th