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LESSONS LEARNED AND GOOD PRACTICES

BOGALE 1ST OCTOBER 2014
YANGON 3RD OCTOBER 2014

Ar Yone Oo Social Development Association (LNGO)

LESSON LEARNED AND GOOD PRACTICES

Back ground

- The Delta area is well-known as rice bowl of the country. Labutta Township consists of 3 different agri-ecological zones.
- AYO intervened in those three main agri-ecological zones.
- The risks are high to cultivate winter crops in the southern part of labutta.
- In northern part, farmers can grow summer rice especially in fresh water zone after monsoon season and winter crops are growing within embankment.
- Diversifying and intensifying new adaptable and promising (potential) crops - and the advanced new technologies can reap fat profit margin.
- Watermelon and sweet corn are the potential crops and high profit margin in short time.

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LESSON LEARNED AND GOOD PRACTICES

Water Melon & Sweet corn

Why

- Popular fruit
- Cash crop with fat profit
- Less water requirement than chili and summer rice
- Short life
- No further post-harvest processing

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LESSON LEARNED AND GOOD PRACTICES

Water Melon

System

- Paired-raised beds
- Covered raised beds with black poly-sheet
- Select big fruit size/ selection of seed (Known You 855 seed)
- Germinate for sure seed germination
- Seeding the germinated seed in small plastic bags
- Grow the young plant in the raised bed
- Hand-pollination during 7-9 am
- Thin out unwanted fruits and left only one piece per vine
- Stop watering after 60 days for sugar synilthesis

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Water Melon

Challenges / Issues

- Late harvest impact on price
- Pest-infested unless regular preventive chemical spraying is given
- Limited farmyard manures

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Water Melon

The strength, weakness of paired-raised beds method

• The most suitable method and best practice for mass production in commercial scale
• Less labor intensive for watering done by mechanized irrigation throng the furrows between the two raised beds
• Can produce fruits with uniform standard size
• Not threatened by floods caused by high tide and unseasonal heavy rains
• Spreading spilled or leaked water will allow weeds in the space left for stretching the shoots of plants.

Sweet corn

System

- Select trade mark highly demanded by market
- Deep and fine tillage is prepared, the deeper and finer the soil is the better
- Regular irrigation at 10-day interval up to 65-70 days
- Apply fertilizer solution in split doses
- Thin out undersized cobs to leave 1 or 2 piece per plant

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Sweet corn

Challenges / Issues

• Optimum soil type for corn crop, loamy or sandy loam, is not available Delta rice land areas
• Limited farmyard manure
• Late harvest impact on price
• Need to be more early than Nyaungdon and Maubin

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Water Melon & Sweet corn

Suggestion

- Early harvest is important to get fat profit margin
- Select market-demanded variety
- Choose and grow the most profitable and lucrative cash crop
- To get double fat profit margin by enabling of contract farming with export companies

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Suggestion on Market Chain for water melon

Comparison the local market and export market

	# fruits/ acres	Minimum price (MMK)	Minimum amount (MMK)	Maximum price (MMK)	Maximum amount (MMK)
Local Market	1600	1000	1,600,000	1500	2,400,000
Export Market	1600	2000	3,200,000	2500	4,000,000

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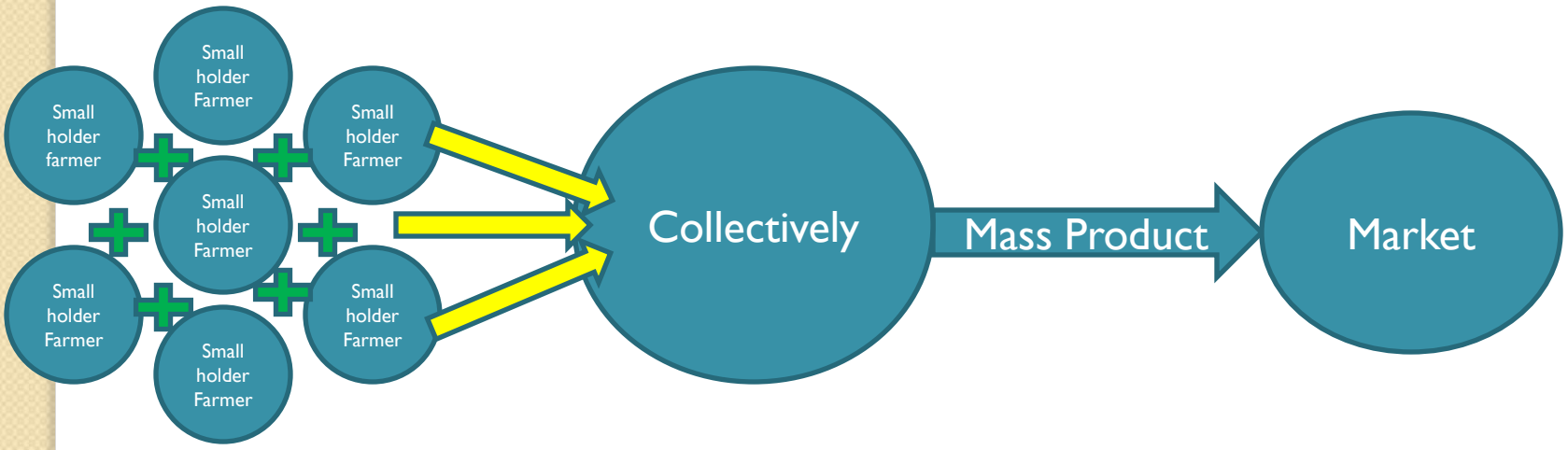
Suggestion on Market Chain for water melon

Market opportunity in collective production



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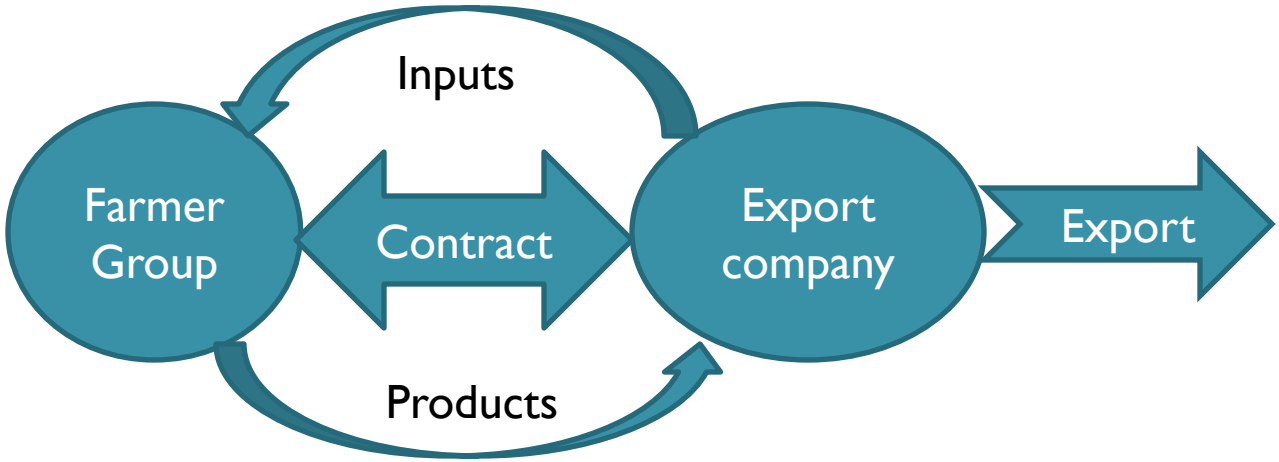
Suggestion on Market Chain for water melon

Simple contract farming approach



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Suggestion on Market Chain for water melon

The criteria and role and responsibility in contract farming

INPUTS		PRODUCTS
1. Seeds 2. Technical assistance 3. Financial assistance 4. Crop monitoring 5. Guarantee the contracted volume to the farmer group 6. Guarantee the price as per contract 7. Procurement & transportation logistic 8. Payment	=	1. Standard sized 2. Fresh Fruits 3. Crop monitoring 4. Harvesting 5. Guarantee the contracted volume to the company 6. Transportation & logistic

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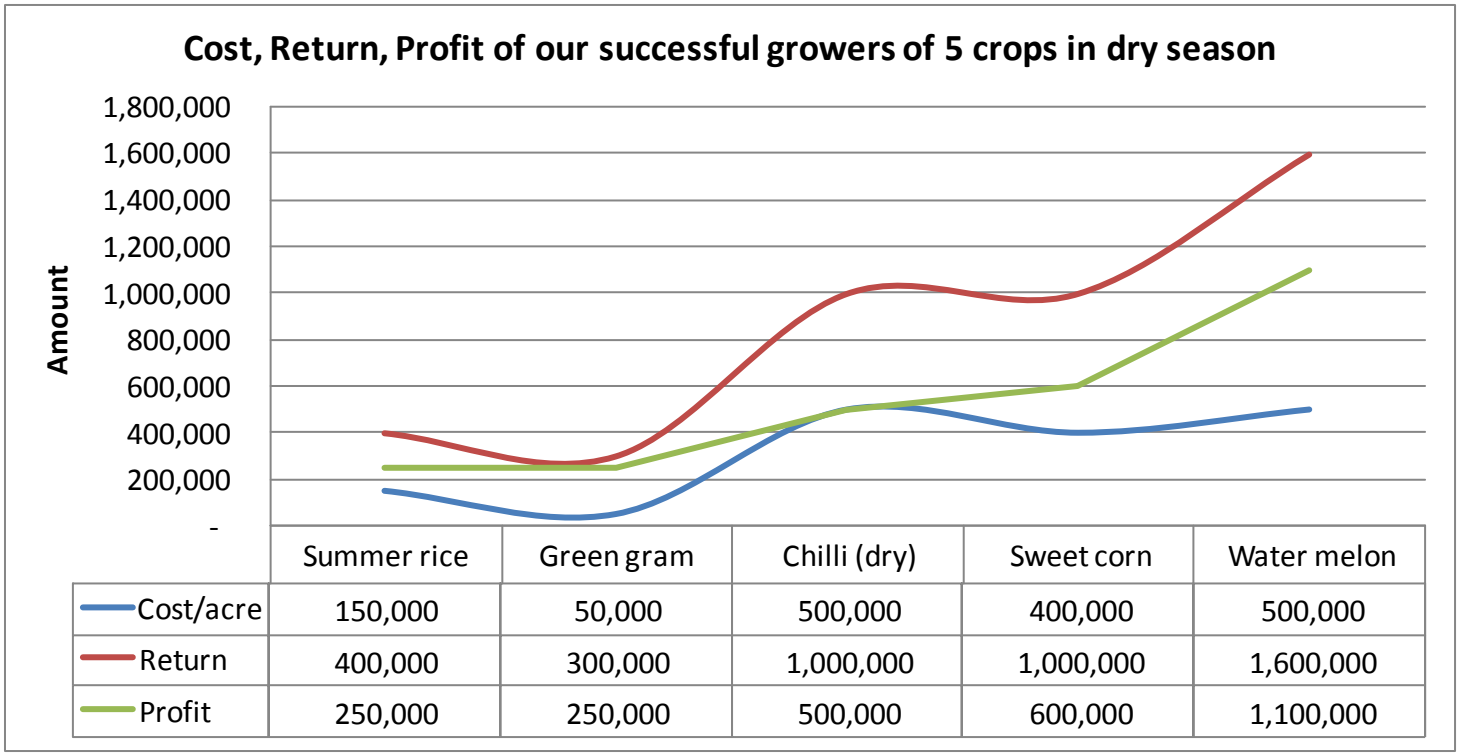
Profit compared to routine local crop



	Summer rice	Green gram	Chilli (dry)	Sweet corn	Water melon
Cost/acre	150,000	50,000	500,000	400,000	500,000
Return	400,000	300,000	1,000,000	1,000,000	1,600,000
Profit	250,000	250,000	500,000	600,000	1,100,000

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Thanks You!

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(Bogale)

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Watermelon and Sesame Cultivation in Pyinsalu

Presentation by

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Field Coordinator

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Background

- Agriculture farming and fisheries growing are main livelihood activities in Pyinsalu
- Some project areas in pyinsalu are affected by sea water in rainy season because insufficient dike
- Round about 10 farmers grew winter crop such as cow pea, sesame, watermelon for home use, not for business in last time because majority problem is not adequate cash for investment
- Watermelon is potential for growing farmers' additional income in the short time and sesame growing also will be succeeded because local demand is cooking oil; and available soil and weather

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Objectives

- To get additional income
- Income opportunity by growing in marginal land for landless
- Winter crop growing practice in future to be in farmers and landless

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Description of practice

Watermelon

- Grew in beach and dune area and sandy loam soil
- Used spacing 7 ft by 7ft
- Growing area is effective sea water but can get sufficient fresh water by digging shallow well
- Seed which is p2, hybrid from china, bought in Laputta
- Villagers bought in plantation for their eating and to sell others

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Description of practice (cont;)

Sesame

- Grew on sandy loam soil with broadcast method
- Used certified seed that from Sinyadanar 3, Magway
- Individual grower sells in locally after made cooking oil

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Methodology

- Winter crop farmers were selected by village development committee and farmer group
- Technical training on pesticide using and growing technique before growing
- In kind support seeds, fertilizer and pesticide
- Demonstration plot (by growing available crops such as watermelon, cow pea and ground nut)
- Project support field day to all winter crop grower
- Growers provide labor charges such as land preparation, pit digging, weeding, harvesting etc.

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Profit margin of Watermelon

- Cultivation invest cost for one acre

Labour cost		**188000 kyats**
- Land preparation	2500*4 manday	10000 kyats
- Diesel cost	4000*2 (gal)	8000 kyats
- Pit digging	2500*8 manday	20000 kyats
- Watering, weeding and maintenance for 3months		150000 kyats

Compound fertilizer (15:15:15)	25 kg	17000 kyats
Foliar fertilizer	250 cc	5000 kyats
Seed	400 gm	22000 kyats
Sprayer	20 liter	18000 kyats
		250000 kyats

- Income (per acre)

highest succeeded grower	1000 kyats* 800 pcs = 800,000 kyats
lowest succeeded grower	500 kyats* 800 pcs = 400,000 kyats

- Net profit in average

highest succeeded grower	550,000 kyats
lowest succeeded grower	150,000 kyats

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Profit margin of Sesame

- Cultivation invest cost for one acre

Labour cost			**20000 kyats**
- Land Preparation	2500* 6 manday	15000 kyats	
- Harvesting Cost	2500* 2 manday	5000 kyats	
Compound fertilizer (15:15:15)	25 kg	17000 kyats	
Foliar fertilizer	250 cc	5000 kyats	
Seed (sin yadar nar 3)	3 pyi	10500 kyats	
Sprayer	20 liter	18000 kyats	
Transportation charge		14500 kyats	
Total		**85000 kyats**	

- Income (per acre)

highest succeeded grower (after made cooking oil) **160000 kyats**

- 5 basket/acre → 32 viss → 5000* 32 = 160000 kyats

lowest succeeded grower (after made cooking oil) **100,000 kyats**

- 3 basket/acre → 20 viss → 5000* 20 = 100000 kyats

- Net profit in average

highest succeeded grower	75,000 kyats
lowest succeeded grower	15,000 kyats

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Lessons Learned on watermelon growing

- For lowest succeeded grower, growing time is late (January), the main causes are;
  - have not own enough farming tools
  - growing time is after paddy harvest
- weather dry and insufficient fresh water while fruit developing
- Some plants weak when inadequate fresh water
- rat damaged fruits in some plots that exist near dense weed
- Could not get good income when selling not good quality products

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Succeeded causes for watermelon growing

- In time growing (November)
- Good land preparation (Good tilth, no weed infestation, land leveled)
- Opportunity for fresh water
- Much local demand
- little pest and disease infestation

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Lessons Learned on sesame growing

- Sesame grow after paddy harvest, therefore
  - Late growing time (2nd week of January)
  - Plant life 3.5 months
  - Late harvest
- Not good land preparation such as urgent growing after tillage finished

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Succeeded causes on sesame growing

- In time growing
- Good land preparation
- Sufficient water content for sesame in soil
- Not high investment compare other crops such as ground nut, Bocate etc.
- Used certified seeds (Sin Yadana 3, Magway)

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Constraints

- Major problems are

  - difficult to rent labor in winter crop growing season because some were seasonal migrate to urban for other jobs
  - insufficient fresh water for watermelon

- No oil mill in the whole area
- Insufficient dike for the whole area to prevent saline water
- Irregular weather condition

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Suggestions and comments

- Need to do soil test before growing.
- To choose available varieties for local demand
- To connect between growers and market by the project to get more income.
- Need to support oil mill to sesame growers to make cooking oil

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Field Monitoring on winter crop farm in Pyinsalu

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Even though in the same Township of Laputta Watermelon growing areas are quite different agri-ecological zone between AYO and LEAD. Compares table is as under mentioned

Sr.	Description	AYO	LEAD
1	Location	Leik Thit village, Leik Thit village tract	Kone gyi, Kwin Yar, Awakar, Htan Pin Kone and Lay Yin Kwin villages, Kone Gyi Village tract
2	Situation of water and soil	Fresh water area	Salinea water area, sandy loam soil and beach
3	Source of water	Streams / creeks	Underground water by pit digging method
4	Growing system	Paired-raised beds	Pit method
5	Plant/acre	1600	900 (7ft by 7ft)
6	Fruit / plant	1	2 to 3
7	Price /fruit	1000 kyats	1000 kyats
8	Cost /acre	600,000 kyats	250,000 kyats
9	Return	1,600,000 Kyats	800,000 kyats
10	Profit	1,000,000 kyats	550,000 kyats


Thank you for your attention