



CERTIFICATE OF PARTICIPATION



Presented to

Vonny Indah Mutiara, Ph.D

as guest speaker titled : Organic Farming System Toward Sustainable Rural Economic

In

AGRIFOOD SYSTEM INTERNATIONAL CONFERENCE

"Agrifood system towards Agriculture 4.0 and delivery of Sustainable Developments Goals (SDGs)"

Padang, West Sumatera, Indonesia, 4-6 September 2018

Dean, Faculty of Agriculture
Universitas Andalas

Dr. Ir. Munzir Busniah, MSi

Chairman

Prof. Ir. Yonariza, M.Sc, PhD



**ORGANIC FARMING SYSTEM TOWARD
SUSTAINABLE RURAL ECONOMIC**

Vonny Indah Mutiara

**Paper presented at
Agrifood System International Conference 2018,
Padang, Sept 5th 2018**

OUTLINE

1. Introduction
2. Why organic farming?
3. Challenges of organic farming
4. A case study of organic rice farming system in West Sumatra
5. Conclusion

1. Introduction

- Agriculture in Indonesia has the characteristics of subsistence agriculture, with characterized by the limitation of farmland property. This condition leads to a difficult capitalization process and adaptation to a competitive market.
- The economic, social and ecological aspects of the rural area are very challenging problems.
- A various and efficient rural economy is needed, which can create and manage resources, not only for improve villagers quality of life, but also maintain environmental protection.

1. Introduction

- However, the problem is no high quality of life can be achieved without adequate economic development.
- Therefore, it has an implication that a sustainable development policies is needed.

2. Why organic farming?

- Indonesia has committed to support the Agenda 21 in Rio de Janeiro (1992) which it stated that every nation have to sustain their agricultural development policy on sustainable agriculture principle.
- Therefore, organic farming has become one of Ministry of Agriculture of Indonesia main programs, in order to implement environmentally sustainable agriculture (Go Organic 2010 program)



Government Go Organic 2010 program

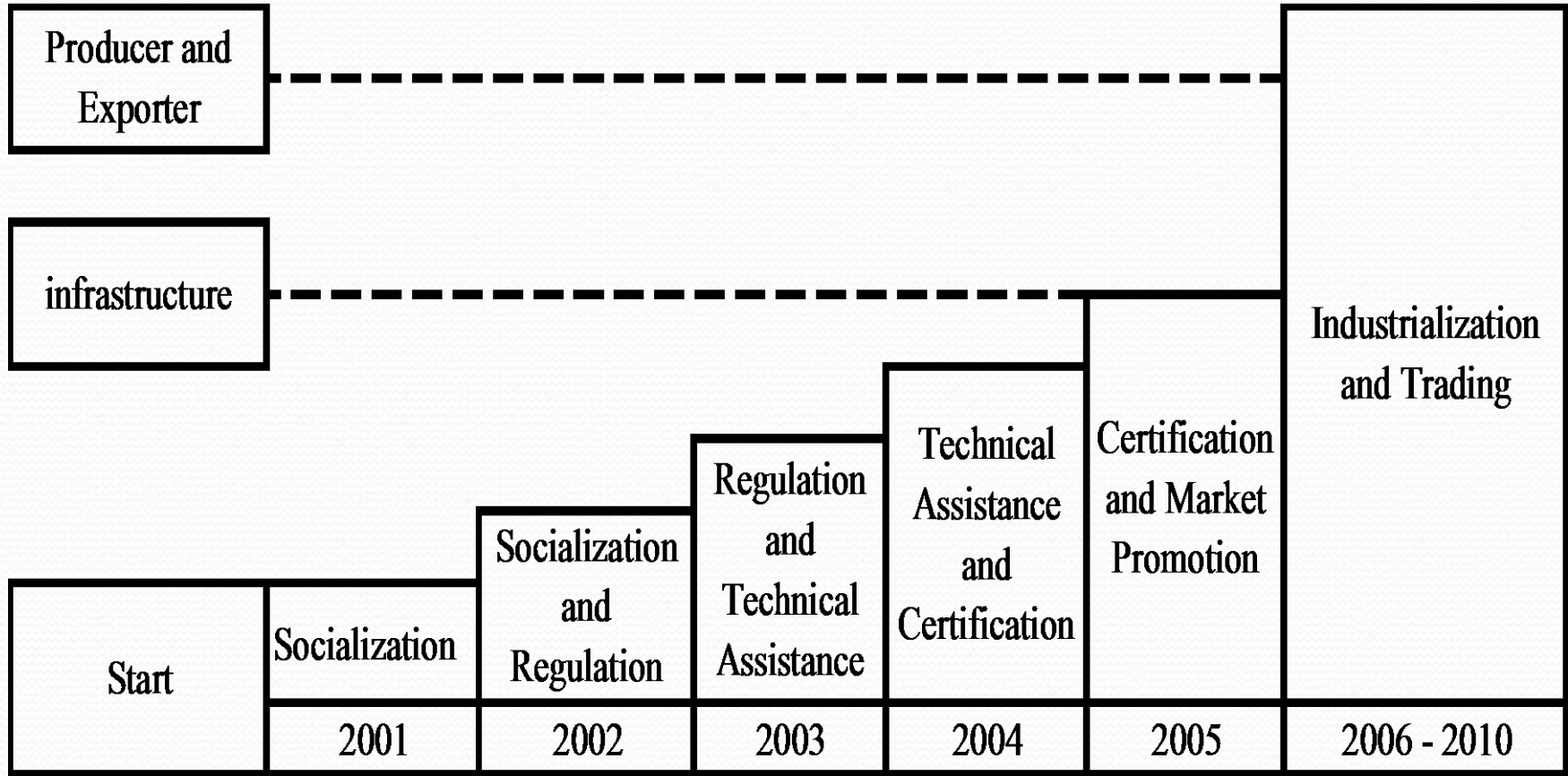


Figure 1. Organic farming development stage (2001 – 2010) in Indonesia

Source : Ministry of Agriculture of Indonesia, 2007

2.1 Definition

FAO (1999)

‘Organic agriculture is a holistic production management system which promotes enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activities. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems’.

IFOAM (2002)

*‘Organic agriculture is a production system that sustains the health of soils, ecosystems and **people**. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects’.*

It is worth noting that

Rural economy is a complex and dynamic system, and agricultural settlements and

their infrastructure, the manifold exploitation of the agroecological potential, the rationalization of farming remain, extremely important components of rural development.

of rural economy requires a multidisciplinary and multiple objective approach which can only be expanded

with the consideration of an extremely complex activity

2.2 Benefit of organic agriculture

- Organic farming is one of several approaches to achieve sustainable agriculture (Rigby and Caceres (2000))
- Organic farming is believed to maintain the sustainability of agriculture systems and adapt to climate change (Tadeo and Baladad, 2012)
- Organic farming is seen as a right solution to solve the global problems of loss of biodiversity(Hole *et al.* (2005))
- Several studies have shown that organic farming **is socially and ecologically sustainable** (Pacini *et al.*, 2003; Pimentel *et al.*, 2005; Sukristiyonubowo *et al.*, 2011; and Todorova and Ikova, 2014)
- Organic farming also can be used **as a tool for productivity and poverty reduction** in Asia (Giovannucci, 2007), can contribute to **local food security** (Scialabba and Hattam, 2002) and **global food supply** (Badgley *et al.*, 2006)

3. Challenges of organic farming

- Although it has been stated that organic farming is productive and sustainable, FAO (2002) suggested that it is very important to have a certain policy measures to maintain the progress of organic agriculture.
- Support for agriculture should be shifted from production goals to environmental and social goals in order to achieve organic agriculture.
- Several studies asserted that it needs for strong support in terms of agricultural extension services and research (Reddy, 2010), support on technology and policy (Lernoud *et al.*, 2015) and it should consider the regional differences and farmers preference (Patil *et al.*, 2014).

Organic agriculture land area in Asia

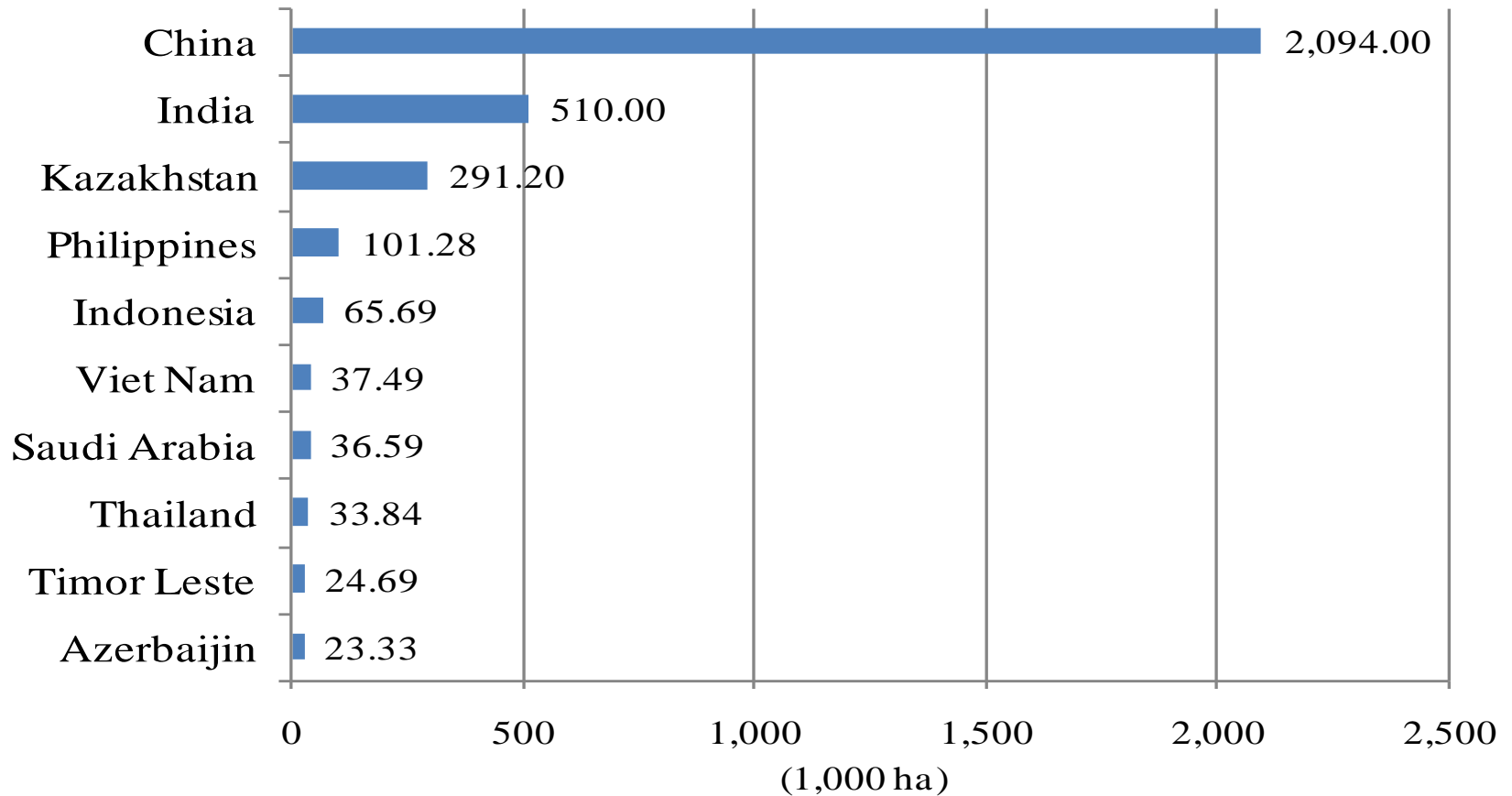


Figure 2. Asia: The ten countries with the largest organic area 2013

Source : FiBL-IFOAM survey 1999-2015

Growth of organic certified agricultural land in Indonesia 2008 – 2014

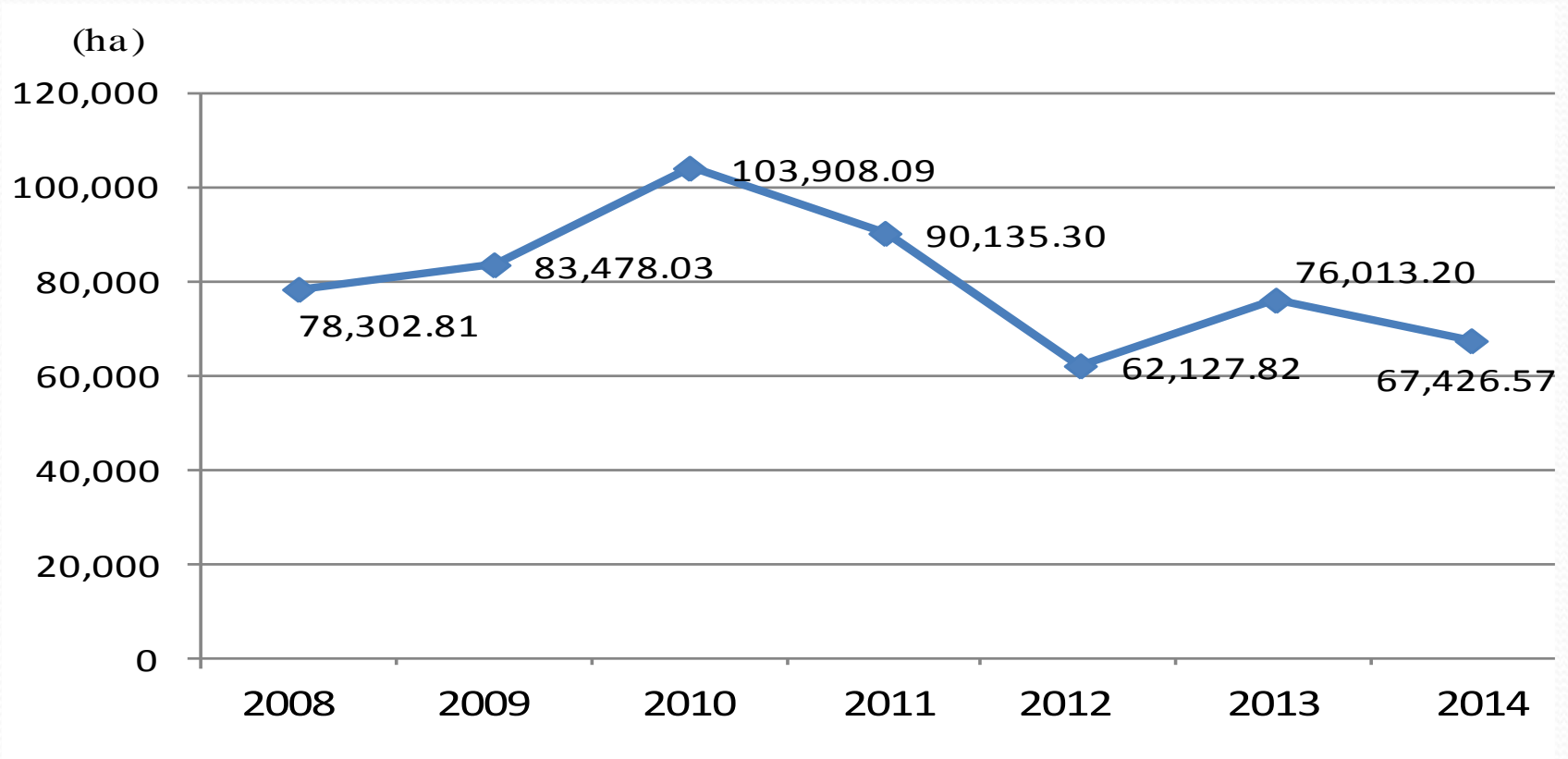


Figure 3. Growth of organic certified agricultural land in Indonesia 2008 – 2014

Source : Organic Alliance Indonesia, 2015

Note : The rate of organic farming area in Indonesia is 0.9% of the total agricultural land

4. A case study of organic rice farming system in West Sumatra

AGAM DISTRICT



Lurah Sepakat



Balai Organik



Amanah Agro



Palapa

4.1 Farmers characteristic

Table 1. Organic rice certification status of farmers group in Agam and Lima Puluh Kota District, West Sumatra, Indonesia

District	Farmers Group	Organic rice certification status (April 2014)	Organic rice certification status (April 2015)
Agam	Lurah sepakat	Certified	Certified
	Balai Organik		
	Amanah Agro		
	Palapa	Not certified yet	Not certified yet
Lima Puluh Kota	Tigo Alua Saiyo	In the process of certification	Certified
	Sehati		Certified
	Serba Usaha		In the process of certification

Note: Tigo Alua Saiyo and Sehati farmers groups were finally received organic rice certification in Dec 2014

Source: Field survey, April 2014 and March 2015

LIMA PULUH KOTA DISTRICT



Serba Usaha



Tigo Alua Saiyo



Sehati

Table 2. Respondents (farmers) profile

Respondent Profile		Total Respondents	
		(people)	(%)
District	Agam	40	58.0
	Lima Puluh Kota	29	42.0
Age	20's	1	1.4
	30's	24	34.8
	40's	21	30.4
	50's	16	23.2
	60's and over	7	10.1
Sex	Male	12	17.4
	Female	57	82.6
Formal education	Elementary	31	44.9
	Junior High School	12	17.4
	High School	23	33.3
	Diploma	2	2.9
	Bachelor	1	1.4
Primary job	Farmer	67	97.1
	Trader	2	2.9
Marital status	Married	63	91.3
	Widow	6	8.7
Family member	1 - 3 people	16	23.2
	4 - 6 people	43	62.3
	7 - 10 people	10	14.5
Position in group of farmers	Leader	6	8.7
	Vice Leader	1	1.4
	Secretary	6	8.7
	Accounting	6	8.7
	Member	50	72.5

Source : Field survey, April 2014



Table 3. Respondents land cultivation profile

Respondents land cultivation profile		Total Respondents	
		(people)	(%)
Time for have been cultivating paddy	≤4 years	26	38.0
	5 ≤9 years	24	35.0
	10 ≤14 years	4	5.8
	15 ≤19 years	3	4.3
	20 ≤24 years	2	2.9
	25 ≤29 years	7	10.1
	30 years and over	3	4.3
Organic rice cultivating area at the moment	less than 0.5 Ha	58	84.1
	0.5 ~ 1.0 Ha	8	11.6
	1.0 ~ 2.0 Ha	3	4.3
Paddy field location	Flat area	41	59.4
	Terracering	28	40.6
Manage the current paddy field for 3 or more years	Yes	61	88.4
	No	8	11.6
Status of land ownership of paddy land area	Owner the land	46	66.7
	Other people own the land	18	26.1
	Owner and also rent land from others	5	7.2
Cultivate other commodities besides paddy in the field	Yes	0	0.0
	No	69	100.0
Land tenancy management	Rent (Money case)	1	4.3
	Sharing (Rice case)	19	82.6
	Mortgage (<i>Pagang Gadai</i>)	3	13

Source : Field survey, 2014



Farmers main reasons in implementing organic rice farming

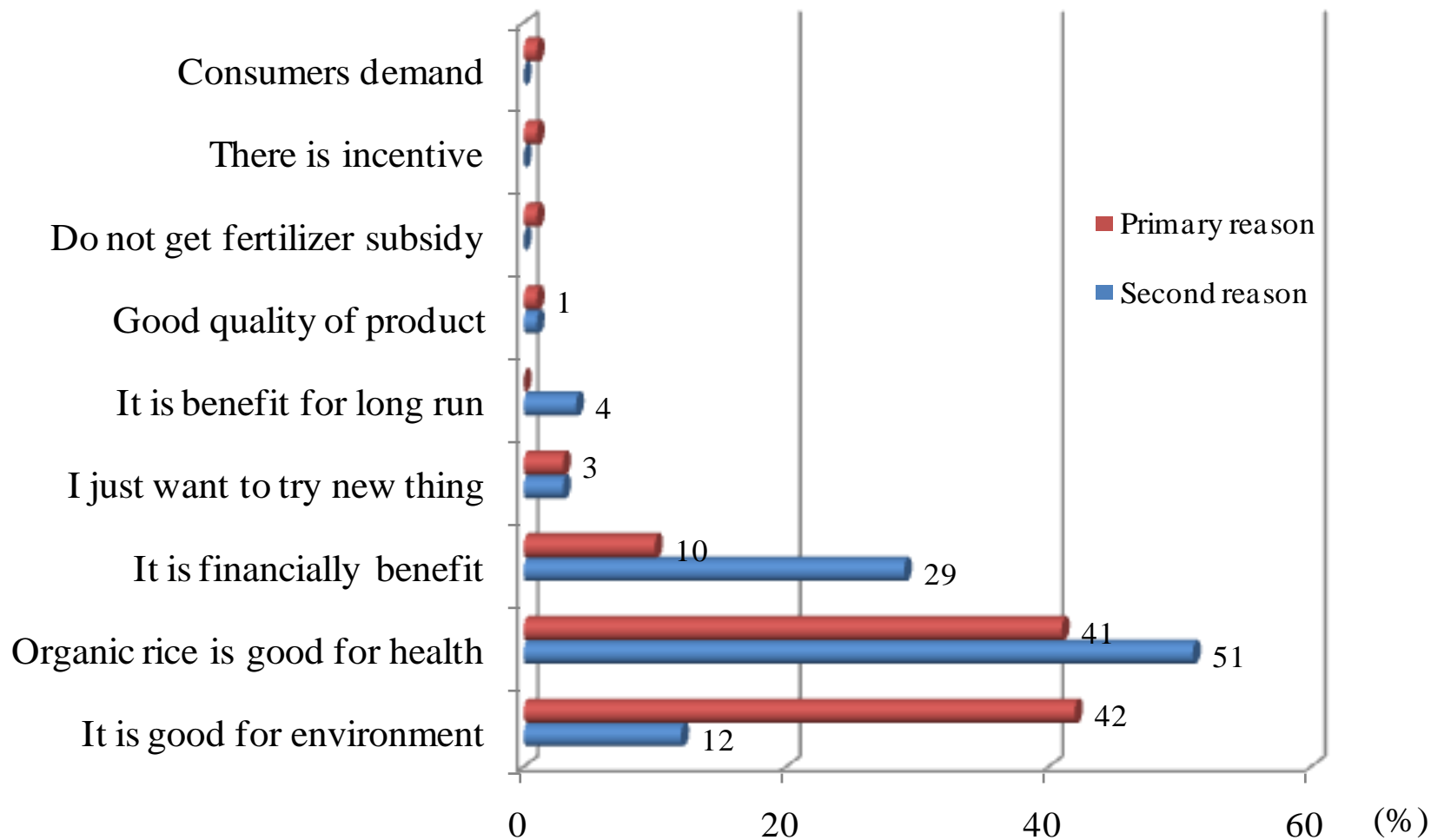


Figure 5. Two main reasons for farmers in implementing organic rice farming

Source : Field Survey, April 2014

Table 4. Consumers main reasons in consuming organic rice

			(Unit : %)
Consumers main reasons in consuming organic rice	First reason	Second reason	Third reason
It is good for health (free pesticides)	87	11	4
It taste good	13	43	20
It is good for environment		17	30
It is a new lifestyle		15	15
To support government program on organic		2	9
Own willingness		2	0
Appreciation for organic farmers		2	0
Neighbours advise		0	2
For business		0	4
Do not know		7	15
Total	100	100	100

Source : Field survey, March 2015

Consumers expectation on organic rice

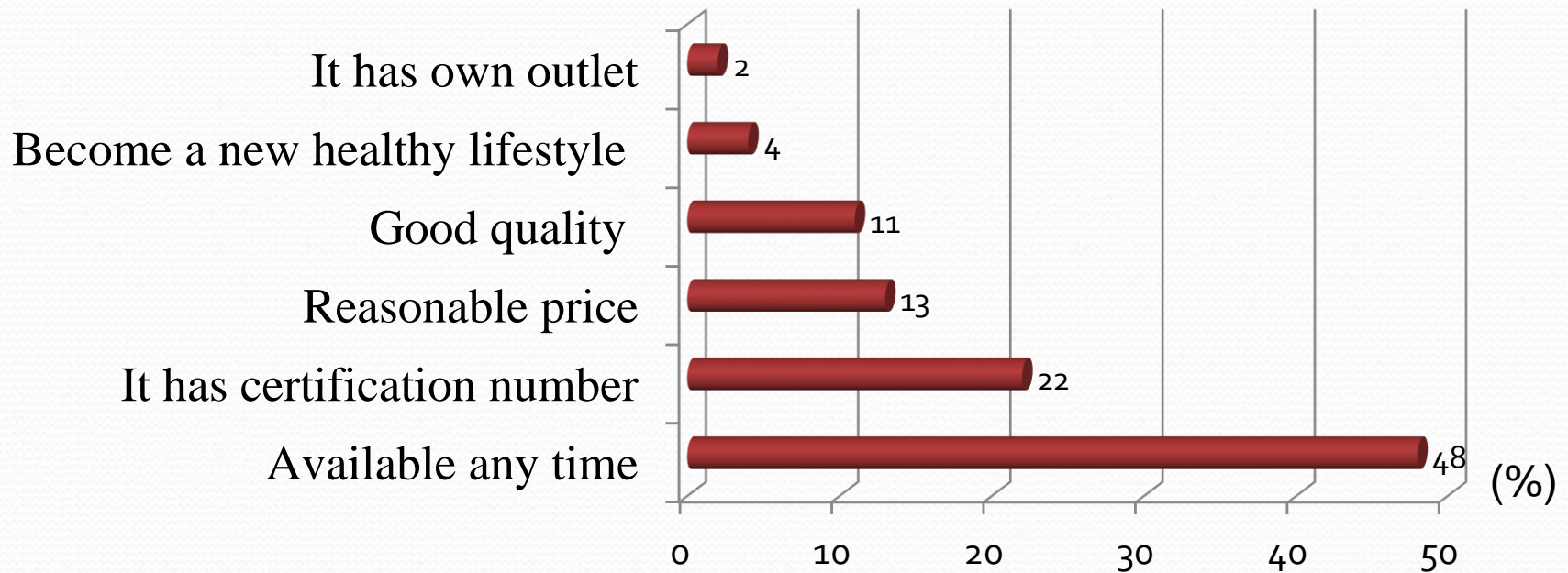


Figure 6. Consumer expectation on organic rice West Sumatra, Indonesia

Source : Field survey, March 2015

- 78% of consumers think that it is important that organic rice has certification number. However,
- 50% of consumers said that they still will buy organic rice although it is not labeled with certification number but written as organic product

Research findings

- 1) The awareness on environment and health are the two main reasons for farmers in implementing organic rice farming system.
- 2) There is a significant role of expert organic farmers and extension workers in the development of organic rice farming system in West Sumatra by promoting and facilitating the organic farmers groups.
- 3) Although organic paddy production tends to be lower than conventional system, this organic rice farming system is more profitable than conventional systems because of the input costs are lower and the selling price is higher than conventional system.

Conclusion

Organic farming toward sustainable rural economic can be achieved by key role of:

1. Local participation
2. Local resources
3. Integration among community
4. Respect local knowledge to enforce awareness on environmental problems

Thank you



Mairiak padi is a traditional way in threshing paddy, which is still implemented in West Sumatra, Indonesia