PRODUKTIVITAS DAN BUDIDAYA TANAMAN KELAPA DALAM CARA PETANI DI LAHAN RAWA PASANG SURUT PROVINSI JAMBI

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ABSTRAK

Tanaman kelapa merupakan komoditas yang banyak diusahakan secara turun temurun dan salah satu komoditas perkebunan dalam usahatani dilahan pasang surut. Tujuan pengkajian untuk mengetahui produktivitas dan budidaya tanaman kelapa dalam yang dilakukan petani di lahan rawa pasang surut Jambi. Pengkajian ini dilaksanakan di Desa Bram Itam Kiri Kecamatan Bram Itam Kabupaten Tanjung Jabung Barat Provinsi Jambi pada tahun 2014. Lokasi pengkajian merupakan salah satu sentra produksi kelapa dalam di Kabupaten Tanjung Jabung Barat. Pengkajian ini dilakukan dengan pengamatan dilapangan pada petani yang mengusahakan tanaman kelapa dalam dan metode survei secara partisipatif melalui PRA (Participatory Rural Appraisal). Hasil pengkajian menunjukkan bahwa produktivitas tanaman kelapa dalam 40-60 butir/pohon/tahun. Rendahnya produktivtas kelapa dalam akibat budidaya yang dilakukan petani tidak sesuai anjuran, umumnya tanaman kelapa yang diusahakan petani tidak dilakukan pemupukan dan tidak ada saluran/tata air mikro sehingga mengganggu pertumbuhan tanaman. Selain itu kendala pertanaman kelapa dalam adalah kesuburan lahan rendah, dan pH rendah. Peluang peningkatan produktivitas kelapa dalam di lahan pasang surut dengan pembuatan tata air mikro, pemupukan NPK, Urea, SP 36, Kaptan dan unsur mikro serta peremajaan kelapa dalam yang sudah tidak produktif.

Kata kunci : Lahan rawa pasang surut, Produktivitas, Budidaya Kelapa Dalam

INTRODUCTION

Tidal swamp land has significant potential to be developed into agricultural land based crops in supporting national food security. Indonesia enough tidal swamp land area of about 20,1 million ha and 9,3 million of them have the potential for the development of food crops (Ismail et al., 1993). Jambi Province has an estimated area of 684.000 ha swamp land, the potential for the agricultural development of 246.481 ha land consists of 206.832 ha of tidal swamp land and non tidal tidal swamp land (Valley) 40.521 ha (Bappeda, 2000). Tidal area has significant potential to be developed into agricultural land based crops in supporting national food security and plantation crops like coconut .

Coconut plant is a commodity that is cultivated for generations and one commodity support in farming activities of tidal swamp land and downs but needs improved productivity. Coconut plant is an important commodity for the community and covers 98 percent of the 3,86 million ha, but its productivity is low at only 3.04 million tons of copra, while potential production can reach 3-5 tons of copra per ha per year (Sinar Tani, 2009), Furthermore, according Novarianto et al., (2001), that 96,2 percent of the holder plantations which have several problems including low production average, primary products such as copra and klentik oil, erratic price fluctuations, lack of capital to coconut products diversification, the low adoption of technology by farmers and 98 percent of farmers use local coconut unselected. In the tidal swamp land shows the condition and problems of biophysical, socio-economic and culturally very diverse, requires technology that truly site-

specific and require the testing of a long (Supriya and Purba, 2000). To support the development of agriculture in the tidal swamp land, the government through research institutes and universities have been conducting research in several locations tidal Kalimantan and Sumatra for about 20 years. IAARD through Swamp Crops Research Institute and various research projects have also been conducting intensive research since the mid 1980s. Various components of farming technology already generated and various packages farming technology has also been engineered to support the development of farming or agribusiness in tidal land. Agricultural Resarch and Development has also produced various components of land management technologies and commodities and farming models (Ismail et al., 1993 and Alihamsyah et al., 2003).

Tidal swamp land in Jambi Province contained two districts namely Tanjung Jabung Barat and Tanjung Jabung Timur. In the future, the role of tidal swamp land is increasingly important result has been the shift of tidal swamp land into non-agricultural businesses. The research result Ismail et al. (1993) showed that the tidal swamp land is considerable potential for agriculture is good for crops, plantations, horticulture and animal husbandry. Fore swamp land is becoming very strategically important for agricultural development as well as supporting food security and agribusiness (Alihamsyah, 2003). Role of coconut is quite prominent and strategic as a source of farmers' income, employment, the main source of vegetable oil and local revenue sources. However, the productivity of land and coconut plantations still low, on the other hand there are still opportunities to improve land productivity and coconut crop (Ditjenbun, 2011). This assessment aims to determine the productivity and coconut cultivation by the farmers in Jambi tidal swamp land.

RESEARCH METHODS

This assessment was conducted in the village of Bram Itam Kiri, Bram Itam District of West Tanjung Jabung Jambi Province in 2014. The location assessment is a center of coconut production in Tanjung Jabung Barat. This assessment is done by field observations on coconut farmers who cultivate crops and participatory survey methods through PRA (Participatory Rural Appraisal). The data collection includes regional characteristics, growth and productivity in the coconut and coconut cultivation in tidal swamp land. Data collected consist of primary data and secondary data. Primary data was collected by conducting interviews with farmers, guided by a list of questions prepared in advance. In addition to the farmers interviewed farmer contacts, PPL and local community leaders in order to obtain additional information and related studies are being carried out. Secondary data was collected from offices or agencies that have to do with an assessment. Furthermore, the data collected from the field processed tabulation and qualitatively analyzed descriptively.

RESULTS AND DISCUSSION

Regional Characteristics

Tanjung Jabung Barat is a district formed by the division of Tanjung Jabung district into the district of Tanjung Jabung Barat and Tanjung Jabung Timur. The formation of Tanjung Jabung Barat is based on the Law of the Republic of Indonesia No. 54 of 1999 dated October 4, 1999 on the Establishment Sarolangun, Tebo, Jambi Muaro and Tanjung Jabung Timur. Regency Tanjung Jabung Barat came from parts of Tanjung Jabung which at that time consisted of the area: District of Batang Asam, District Tungkal Ulu, District Merlung, District Tungkal Ilir, District Betara, District Pengabuan, District Bram Itam, District Senyerang, District Muara Papalik, District Mendaluh, District Tebing Tinggi, and the District of Seberang Kota. The total area of Tanjung Jabung Barat is 5.503,5 km^2 with the capital based in Kuala Tungkal (BPS, 2008).

Tanjung Jabung Barat located between 0053 '- 01 041' south latitude and between 103 023 '- 104 021' 'east longitude. Tropical climates, and have varying heights ranging from less than 0-25 m above sea level (44,79 %), 25-500 m above sea level (52,78 %), and > 500 m

above sea level (2,43 %). Existing farming in Tanjung Jabung Barat consists of food crops, plantation crops and livestock. The dominant crops in the region are paddy rice (13.902 ha), dry rice (1.427 ha) and maize (427 ha). Plantation crops in general smallholder agriculture. Smallholder plantations is palm oil (13.332,9 ha), coconut (55.610,6 ha) and rubber plantations (15.458 ha). In this region there is also the largest private plantations of palm oil (42.825,2 ha) and rubber (2.968 Ha). The number of cattle in the region's largest population of goats (10.099 head), cow (972 head), and buffalo (522 head).

The village Bram Itam Kiri is one village in the district Bram Itam Tanjung Jabung Barat is an area that has an area of 3 km that consists of rice field area of 250 ha and smallholder plantations of 30 ha is coconut cultivated as monocultures and mixed with areca and coffee plants. The total population of 1.500 people and the number of households with 575 households (Monograpi Desa, 2013). The village community is a mixture of several areas in Jawa, Bugis, Banjar, Sumatera Barat and Jambi. The village is the north bordering the village of Tanjung Sijulang, South with Purwodadi, East with Bram Itam Kiri village and the West with Parit Pudin. Distance to the district capital is 5 km with a travel time of 10-15 minutes of travel, can be reached by public transport or motorcycle or waterways. The distance to the capital of the district is 20 km with a travel time of 10-20 minutes of travel, can be reached by public transport or motorcycle or waterways. Bram Itam Kiri village flat topography located at a height of 2,5 m above sea level. State land including land typology of acid sulphate and peaty influenced by the influx of salt water from July to September has a pH between 4 - 5. Based on the nature and characteristics of the optimum soil to support plant growth coconut is sandy soil, mountain gray and clayey soil. with a soil pH of 5.2 to 8 and has a crumb structure so that the roots can grow well. Sun a lot of at least 120 hours per month, if it is less than that of fruit production will be low. The most suitable temperature is 27 ºC with an average variation of 5-7 ºC, the temperature is less than 20 ºC less productive plants. Good rainfall 1300-2300 mm/year. Long droughts lead production was reduced by 50 %, while high humidity cause an attack of fungal diseases. The wind is too strong sometimes hurt the plant is too high, especially varieties in (Suhardiyono, 1998). Farming is dominant in this village plantations of approximately 60 percent and 40 percent of food crops. The dominant plantation crops are coconut farmers cultivated in a while to crops such as rice and pulses.

Characteristics Farmers

Characteristics farmers of Bram Itam Kiri can influence the direction of coconut farming in age, education, experience, cultivation of land and the number of families.

Table 1. Characteristics of the coconut farmers in Bram Itam KiriVillage, Bram Itam Subdistrict Tanjung Jabung Barat- Jambi

Description	Characteristics Farmers
Age (yars)	35-55
Education	SD-SMP
Coconut planting experience (years)	> 5
Cultivation of land (ha)	1-2
The number of families (soul)	3-5

Table 1 shows that the average age of farmers in the coconut farming activities are 35-55 years old. This shows that the age of the farmer is still at the level of productive age, so the ability to farming can be developed and improved. The average education of farmers is on the level of elementary school and junior. The education level will affect the ability of the acceptance and adoption of technological innovations, so as to broaden the technological innovation will vary. In general, farmers' knowledge about coconut cultivation is quite good, it is supported by the experience of farmers in palm cultivation is long enough that over 5 years so with that experience will help in adopting technological innovations. According Taryoto (1996) that technology adoption is a process of mental and behavioral changes either in the form of knowledge, attitudes and skills of farmers from knowing until it decides

to implement it. The average area of land ownership/concession is 1-2 ha of land, land ownership is sufficient potential to increase crop production. The amount of labor in the family has the potential to farming. Family labor used include husband, wife, son and children, workers from outside the family is usually required in maintenance activities, harvest and post-harvest.

Productivity and Coconut Cultivation

Coconut farmers cultivated plants have been conducted since 1982, is coconut varieties grown in the seed and source of government assistance. Cultivation by the farmers with a spacing of 8 m x 8 m and fertilization is done two times a year, but after that year no fertilizer again. Coconut plant began production in 1988/1989 until now. Coconut crop productivity in 40-60 grains / tree/year and constraints of the coconut is a natural condition of tidal swamp land, not made channel/trench so stunted plant growth, leaf loss and unfruitful and pest beetles. The pest attacks the leaves and fruit resulting in leaves and young fruit loss. On average farmers own land 1-2 ha of coconut plantations and sale by the farmers in the form of granules, copra and coconut oil and depends on the demand and market price high.

From the results of field observations showed that plant growth in cultivated coconut farmers Bram Itam Kiri village shown growth diversified. Low production of coconut grown by farmers for not applying micro water management or construction trench on the coconut land and no fertilizer. Efforts are being made farmers to increase coconut production needs to be made micro water management and fertilization. Productivity gained coconut farmers still can be improved by the addition of NPK fertilizer in addition to Urea, SP 36, KCl, agricultural lime and micronutrients. The results showed that NPK fertilizer, dolomite and micro elements with Urea 1500 g, SP 36 750 g, KCl 1500g, Dolomite 800 g, $CuSO_4$ 50 g and ZN SO_4 50 g shows vegetative growth is good and a high production (Dhalimi et al., 1994). Furthermore, the recommended dosage of coconut plantations in on tidal swamp land is Urea 5400 g/tree/yr, SP 36 3000 g/tree/yr, KCl 4700 g /tree/yr, Dolomite 2200 g/tree/yr and borax 150 g/tree/yr (ISDP, 2000). According Endrizal and Jumakir (2012) that promoted growth in the field look better when done growth manufacture micro water management and fertilization. In the land of coconut farmers who created the channel/trench around the moat between the land and coconut plantations and NPK fertilizer showed good growth so as affect oil production. The average productivity obtained by farmers in one hectare of 2500 items in one harvest, harvesting coconuts done 3 months to a year oil production reached 10,000 grains. While the production of coconut farmers obtained without the use of micro water management and fertilization obtained low yields are 500 grains in a harvest that year only 2000 grain production. Palm growth is not normal, the stem begins to diminish as a result of drainage channels are not functioning. Productivity coconut plant can be improved by the application of technology as recommended, so as prospects for the development of coconut trees in the tidal area can increase farmers' income. The use of appropriate technology such as water management, seeds, fertilizer and pest and disease control will change the status of a potential problem (Ismail et al., 1990).

Constraints and Marketing of Coconut

The coconut is cultivated on tidal land have obstacles in development include land conditions vary with different typologies including potential farm land, acid sulphate and peat. Soil fertility level is generally less favorable for the growth of coconut water budget, soil physical and chemical properties. The nature and characteristics of tidal swamp land is very acidi, soil pH 3-3.5, including high nitrogent content but in form is not available, the content of macro nutrients such as P, K and Mg low as well as micro-nutrients such as Cu, Zn and B. In the typology of peatlands are often deficient in nutrients and plant growth increasingly on palm trunks are getting smaller and growing crooked and even uprooted. Other constraint is transportation. Making his way to the means of transport in tidal swamp land in trouble. Farmers in the village of Bram Itam Kiri using the drainage channels and streams used as a more efficient means of transport.

Table 1. Marketing coconut in the village of Bram Kiri Itam, Bram Itam subdistrictTanjung Jabung Barat- Jambi Province

Coconut	Price (Rp)		Information
	Copra wet	Point	
1 kwintal (100 kg=250 grains)	200.000-250.000	1300-1700	peeled
1 point	-	500-800	spindles

Generally, farmers in the village of Bram Itam Kiri marketing results depends on the demand and selling prices are high. Generally farmers done by selling coconuts discarded shell because it is more profitable than sold at a granular system. Besides the farmer can sell the coconut shell is made as charcoal. Farmers sell coconuts to traders at a price of Rp 250.000 per 100 kg or Rp 2500 /kg. While the majority of the shell is made of charcoal for use as fuel for domestic use and to be sold for Rp 15.000/sack. Coconut shell than can be used as a fuel can be used as a handicraft and souvenir items of quality and high economic value, but it can be used as a filler material plywood, asbestos and insect repellent (Tarin and Mahmud, 1997). From the results of the assessment that the acceptance of farmers per hectare with the application of micro water management and fertilization is greater than without micro water management and fertilization occur without an increase in revenue to grow by 83,33 percent. To improve oil productivity and farmers' income, parents need to be rejuvenated coconut, coconut unproductive rehabilitated. New planting or expansion should consider the suitability of the environment, and increasing the added value of products produced not only granular coconut, copra or oil but a variety of products derived from oil plants as well as from the sidelines crop is planted among coconut trees. According Suryatna (2004) that the success of agribusiness in tidal swamp land through the application of appropriate land management technologies need to be supported by the ability of qualified human resources, facilities and infrastructure are adequate, effective and efficient institutions. Therefore, increased capacity and human resource development and public participation needs to be done on going basis through socialization and training of technical and non technical aspects.

CONCLUSION

1. The growth of coconut plants in quite diverse and productivity in 40-60 grain/tree/year. Low productivity coconut cultivation as a result farmers do not as recommended, mostly coconut farmers cultivated plants do not fertilization and no drain/micro water management.

2. Constraints in the coconut crop is low soil fertility and low pH as well as the age of the plant. Coconut productivity improvement opportunities in the tidal area in the manufacture of micro water management, fertilizer NPK, Urea, SP 36, dolomite and micro elements as well as the rejuvenation of coconut in unproductive.

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