



# PROCEEDINGS

## International Seminar on Agro-tourism Development (ISAD)

AGRO-TOURISM:  
EDUCATING, CONSERVING,  
AND EMPOWERING

Hosted by:



Faculty of Agriculture  
Universitas Pembangunan Nasional "Veteran" Yogyakarta  
Indonesia

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# Proceedings

**International Seminar on Agro-tourism  
Development (ISAD 2011)**

**AGRO-TOURISM:  
EDUCATING, CONSERVING AND EMPOWERING**



Field Trip held on 6 December 2011  
Seminar held on 7 - 8 December 2011  
in Faculty of Agriculture, UPN "Veteran" Yogyakarta  
Indonesia

ISBN: 978-979-18768-1-0

# **Proceedings**

**International Seminar on Agro-tourism Development  
(ISAD 2011)**

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# Preface

Agro-tourism has become increasingly popular among domestic and foreign travellers. This is because Agro-tourism manages to utilize the natural beauty of agricultural landscapes and the cultural diversity of each region. The goal of Agro-tourism is not only for natural conservation, but also for empowering local communities socially and economically. Simply, by developing Agro-tourism, local economies grow. However, to further empower the local communities, it is imperative that they are involved in the planning, decision making and management of the Agro-tourism. Thus, education plays an important role in this matter. The theme of the seminar is Agro-tourism development based on local resources. Topics of interest for the seminar include: Services on Agro-tourism, Socio-culture, Economics and business, Regional development, Land management, Processing of agricultural products, Agronomy, Forestry, Livestock, and Fishery.

The objectives of the seminar are sharing research information and empirical experiences, as well as innovative ideas that will open new perspectives on agriculture related to tourism issues. It also aims to establish interaction and communication among researchers, observers and practitioners in finding solutions of the problems regarding agriculture and tourism to improve welfare of the rural areas.

On behalf of the international seminar organizers, we are pleased to present the Proceedings of the International Seminar on Agro-tourism Development (ISAD 2011). ISAD is an event held in cooperation between the Faculty of Agriculture Universitas Pembangunan Nasional "Veteran" (UPN "Veteran"), Yogyakarta, Indonesia and the Faculty of Resource Science and Technology and Faculty of Economics and Business Universiti Malaysia Sarawak, Malaysia.

Finally, we would like to express our gratitude to the Rector UPN "Veteran", Yogyakarta for the financial support, the Dean of the Faculty of Agriculture for hosting, and the Scientific and Steering Committee. We wish to thank the keynote speaker Sultan Hamengku Buwana X, and invited speakers Syukur Iwantoro, MS., MBA, the Head of Agro-tourism Commissions, Ministry of Agriculture Indonesia; Prof. Shuib Ahmad, Institute of Agricultural and Food Policy Studies, Putra Infoport, Universiti Putra Malaysia; Prof. Haruo Kuroyanagi, Jogakuen Sugiyama University; Prof. Jesusa D. Ortuoste, Sultan Kudarat State University The Philippines; Marc Vanacht, President of AG Business Consultant, USA; and Dr. M. Reza, Expert of Taman Buah Mekarsari, Indonesia; as well as participants for their contribution in making the seminar a success. We wish to thank the Regency and Local Government of Bantul Yogyakarta as the major sponsor and all other sponsors for their contribution in making this seminar possible. As a Chairperson, I highly appreciate the great efforts of the members of the organizing committee whose hard work made this seminar a great success.

Yogyakarta, December 8, 2011  
Siti Syamsiar  
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## AGROTOURISM POTENTIAL AND SUSTAINABLE AGRICULTURE IN LAMPUNG

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### ABSTRACT

Krakatau Volcano, Bukit Barisan Selatan National Park and Way Kambas “Elephant” National Park are well-known icons of Lampung ecotourism yet they are not enough to attract tourists to Lampung. Lampung, however, has the potential to develop agrotourism involving industrial plantations and tropical fruit gardens. Lampung Province is among the main production areas of Indonesian for coffee, black pepper, cocoa, oil palm, coconut palm, rubber, sugarcane, cassava and pineapple. Moreover, Lampung civet coffee and Lampung black peppers are famous worldwide. Plantation agrotourism offers beautiful views and the opportunity to participate many activities associated with agriculture such as nursery production, planting, breeding, harvesting and processing. Good management and sustainable production are key to the development of agrotourism. Sustainable coffee production and damar resin agroforestry in West Lampung have the potential to develop as agrotourism destinations in Lampung. Local government already has programs to push agrotourism of exotic tropical fruits such as durian, duku, mangosteen and rambutan. Challenges and support of culture, local wisdom, local products and souvenirs are also discussed.

KEYWORDS: plantation agrotourism, sustainable, local wisdom, Lampung

### INTRODUCTION

Lampung is the southern province of Sumatera, with the Hindia Ocean to the west, the Java Sea to the east and the Sunda Strait to the south. Having 1,105 km of coastline, 150 islands, 66 mountains, 5 rivers 647 km in length and 436,782 ha national park, Lampung has great potential to develop ecotourism. But how about agrotourism? With plains in the east, highlands in the west and piedmont in the middle, Lampung is suitable for both planting lowland and highland crops. Lampung also claims to be “the land of agribusiness”. The area used for food crop production includes 506,000 ha of rice fields, 387,000 ha of corn fields and 319,000 ha of cassava fields. The area of industrial crops includes 97,000 ha of rubber, 39,000 ha of cocoa, 123,000 ha of sugarcane, 45,000 ha of black pepper, 280,000 ha of coffee, 140,000 ha of coconuts, 153,000 ha of oil palm and 46,000 ha pineapples. This shows that Lampung has potential to develop agrotourism.

Agrotourism, also called as agritourism, agricultural tourism or farm tourism, is the business of attracting visitors and travellers to agricultural areas, generally for educational and recreational purposes (Theodoropoulou *et al.*, 2008). Beautiful views,

clement weather, rural cultures, adventure activities, unique production and special cuisines might attract tourists to come and stay for a while. Agrotourism adds to these attractions by providing places where tourists can learn about crop production which includes plant nurseries, planting, breeding, harvesting and processing; however; generally, harvesting and processing appeal most to tourists. It is a good experience for tourists to pick fruits from a tree and taste their freshness. The range of adventures in natural landscapes is a determining factor in tourists' willingness to pay (Malkanthe and Routry, 2011), and it is advantageous if agrotourism is linked with ecotourism. This paper is a review of Lampung agrotourism based on secondary data and survey conducting around Lampung in 2007-2009.

## ECOTOURISM IN LAMPUNG

Table 1 shows the potential for tourism in Lampung. Krakatau volcano, which lies at Sunda Strait in South Lampung, is one of the tourism attractions. A series of massive explosions culminating in 1883 killed more 40,000 people and changed the island. The explosion was among the most violent volcanic events in modern and recorded history. This explosion caused the growth of another volcano called Anak Krakatau which greatly interests many tourists. In addition, tourists are also eager to watch the volcano when it is erupting. South Lampung Regency should promote ecotourism by focusing on Anak Krakatau's notoriety and develop other destination of interest to tourists including beaches, islands and agrotourism.

Tourists can reach the city of Bandar Lampung from Jakarta by 16 flights a day, in addition, the Sunda Strait Bridge should be under construction soon. At the western border of the city lies Wan Abdul Rachman National Forest Park, where ecotourism is developing in and around the Pesawaran Regency. Only 20 km from the city, tourists can enjoy beautiful forests, waterfalls, beaches and islands. Some conservation activities are being carried out in this region including forest, marine, mangrove and butterfly conservation; in the future deer conservation will also be undertaken. Islands and bays are potential ecotourism locations in southern Lampung. One of them is Kiluan Bay in Tanggamus Regency. It is a remote place, about 80 km from Bandar Lampung and is reached mainly by boat. It has a beautiful beach, island and natural ecosystem. It is a hidden paradise where bottle-nose dolphins like to play and turtles come to spawn.

Going west along the Trans-Sumatera Road, 150 km from Bandar Lampung, you cross the Bukit Barisan Mountains to reach the coastal area of West Lampung Regency. One of the natural places is Tanjung Setia beach. This is famous for its beautiful sand and high waves, and the beach is Lampung's surfers paradise. The waves at Tanjung Setia are considered to be among the world's best by surfers from all over the globe, and on par with the world-famous surfing area in Hawaii. During the peak surfing months, which last from June to August, the waves can reach up to a spectacular six or even seven meters in height and stretch of 200 meters, making them a prime playground for surfers. The size of the waves is caused by the position of West Lampung coast which directly faces the Hindia Ocean. The deep sea beast, the blue marlin, offers the adventure of fishing, an experience unmatched by any other.

Along the coast lies Bukit Barisan Selatan National Park (National Park of TNBBS) where tropical rain forest and wildlife is conserved. In the park, the government protects wild animals such as elephants, tigers, rhinoceros, forest water buffalos and birds. Various kinds of orchids, which considered as rare flora, also grow in this region. Seminung Mountain, part of Bukit Barisan Mountain, is located in the north of West ISAD, Yogyakarta, INDONESIA, December 6-8, 2011

Lampung Regency. At its foot, about 35 km from Liwa (the capital city of West Lampung Regency) lies an old caldera named Ranau Lake. As the second largest lake in Sumatera, Ranau Lake is famous for its blue water and abundance of giant fish and you can easily buy fresh fish from the local fishermen. In addition, you can also enjoy the beauty of Ranau Lake while eating grilled fish and drinking a cup of hot coffee. West Lampung has many beautiful places, nice weather and fertile soil. Moreover, it is suitable for growing a range of crops, including vegetables, coffee and many plantation species. However, is it developing to be a destination of agrotourism?

Table 1. Profile of the main tourism locations in Lampung.

Regency	Prime tourism site	Attraction
South Lampung	Krakatau Volcano	Nature conservation
	Beach (Marina Beach, Merak Belantung, Pasir Putih)	Snorkeling, diving, fishing
Bandar Lampung City	Bumi Kedaton Tourism Park	Camping, tracking
	Wan Abdul Rachman -National Forest Park: Gate1	Forest conservation, camping, tracking
	Butterfly Park	Butterfly conservation
Pesawaran	Wan Abdul Rachman -National Forest Park: Gate-2	Forest conservation, camping, tracking
	Coastal Tourism: Beaches and islands	Snorkelling, diving, fishing
	Centre for mariculture development	Marine conservation
	Puhawang Island	Mangrove conservation
Tanggamus	Kiluan Bay	Turtle sanctuary, watching bottle-nose dolphins, fishing
	Batu Tegi dam	Fishing, boating
	Way Gelang Beach	Canoeing, fishing
	Way Lalaan waterfall	Bathing
	Jeram Semangka waterfall	Bathing
	West Lampung	National Park of TNBBS
Tanjung Setia beach		7 m high surfing, beach volley ball and soccer, boat racing
Ranau lake		Canoeing, paralayang, boat racing, village living
Pesagi mount		Hiking, hunting
River and water fall		Rafting
Labuhan Jukung Beach		Sun set, surfing, blue marlin fishing
Pisang Island		Sun bathing, swimming, canoeing, diving, sailing, fishing
Muara Tembulih		Turtle conservation
East Lampung	National Park of Way Kambas	Elephant Conservation & Training Centre, Sumatera rhino conservation, Sumatran tiger tracking
	Pugung Raharjo-Archeological Park	Ancient megalithic conservation

From Bandar Lampung, east along the Trans-Sumatera Road, you cross the plain pine area where many plantation crops grow well including rubber, sugarcane, pineapple, cocoa and black pepper. In East Lampung Regency, you can visit Pugung Raharjo ISAD, Yogyakarta, INDONESIA, December 6-8, 2011

Archaeological Park (40 km from Bandar Lampung) and Way Kambas National Park (110 km from Bandar Lampung) where you can visit the Elephant Conservation and Training Centre as well as to track the wild Sumatran tiger and rhino.

## THE POTENTIAL FOR AGROTOURISM IN LAMPUNG

Lampung has the potential for agrotourism, including food crop farms, fruit gardens, industrial plantations, livestock rearing and fisheries. Table 2 lists the main potential agrotourism places in Lampung that are scattered among the nine regencies. Of the 35 locations, 57% are plantations and 20% are tropical fruit gardens/parks. Therefore, the main potential for agrotourism in Lampung is plantation and tropical fruit garden agrotourism.

The tropical fruit park of Pekalongan, East Lampung, is one of the popular places visited by local tourists. It is easy to access as it is near Metro City Municipality and only 40 km from the province's capital city. Many varieties of tropical fruits including rambutan (*Nephelium lappaceum*), durian (*Durio zibenthinus*), mango (*Mangifera indica*), cempedak (*Artocarpus champaden*) are available. Visitors can pick the fruits straight from the tree during the harvesting season (March–June). Seedlings fruit trees produced by many smallholders are also available in the surrounding villages.

Lampung province is a meeting point of the roads connecting Sumatera and Java. Trucks and cars cross Lampung through four main roads named the Western, Central, Eastern and South-eastern Trans-Sumatera Roads. Unfortunately, the road surfaces become broken quite quickly. People come to Lampung to buy and sell fruits and other commodities, bringing them from, or selling them in, Java. Every regency has certain fruits that it is able to grow well. The local government of Tanggamus Regency focuses on developing mangosteen (*Garcinia mangostana*) as an export commodity and in agrotourism gardens, while farmers in East Lampung focus on establishing pineapple fields. Way Kanan Regency has potential to develop the endogenous duku fruit (*Lansium domesticum*) along the region of Komering river. When crossing Lampung, people enjoy eating fruits. However, it is certainly more efficient for the people in transit not to visit fruit gardens, as fruits are available along the road sides.

The potential for plantation agrotourism in Lampung has not been realised. Large-scale estates focus on production for export. Some of the estates have problems with endogenous people due to issues associated with land tenure and land occupation. However, study tours and scientific activities are allowed. Smallholder gardens of coffee, black pepper, rubber, cocoa, commonly mixed with fruits, could be developed into places for agrotourism. Lampung coffee and black pepper are already well known as products from Lampung as visitors might be interested in how these commodities are produced. Moreover, it would be more enjoyable if fresh fruits were available in the gardens. Mixed fruit gardens is the local wisdom of Lampung. In the harvesting season, visitors, mainly relatives, come to family garden to relaxing and enjoy the weather and fresh fruits. This makes farmers plant different species of fruit trees in the same garden, with an industrial commodity as the main crop and fruit trees as secondary crops. Nevertheless, this is not an agrotourism business, since relatives may come to garden freely. Farmers need to join together in a farmer groups or cooperatives in order to organise the farms into a larger production unit and agrotourism farms. Che *et al.* (2005) concluded that agrotourism will be successful if developers work cooperatively rather than individualistically and competitively. Purchasing fresh produce from farms

is one of the important products of agrotourism. Tew and Barbieri (2012) stated that agrotourism is perceived as most important for market related produce.

Table 2. Profile of agrotourism site in Lampung

Regency	Agrotourism places	Area (ha)	Location	Distance (km)*
South Lampung	1. Krakatoa Resort	40	Merak Belantung	50
	Agrotourism (fruit)			
	2. Bergen Plantation (rubber, oil palm)	4,600	Bergen	33
	3. Rejosari plantation (oil palm, rubber)	4,870	Rejosari	25
	4. Natar Research Station	600	Natar	15
Pesawaran	1. Durian Park of WAR National Forest Park	18	Padang Cermin	20
	2. Way Berulu (rubber, cacao) Plantation	2,400	Gedungtataan	22
	3. Way Lima (rubber) plantation	5,600	Way Lima	60
	4. Durian mixed garden		Padang Cermin	20
Tanggamus	1. Mangosteen mixed garden	900	Kota Agung	94
	2. Durian mixed garden	1,300	Kota Agung	94
	3. Coffee plantation	54,186		80
	4. Cocoa plantation	14,078		80
West Lampung	1. Coffee plantation	59,317	Every sub district	160
	2. Damar Garden	17,500	Pesisir Krui	250
	3. Horticulture fields	300	Liwa, Sekincau	200
	4. Botanical Garden	112	Liwa	246
	5. Coffee research station	15	Hanakau	240
Centre of Lampung	1. Sugarcane plantation	22,000	Gunung Batin	90
	2. Pineapple plantation & beef growing	32,000	Terbanggi	65
	3. Bekri (oil palm) plantation	4,300	Bekri	45
	4. Padang Ratu (oil palm)	2,500	Padang Ratu	110
East Lampung	1. Tropical fruit park	114	Pekalongan	40
	2. Pepper plantation	9,200	Jabung	60
	3. Cocoa plantation	6,642	Way Jepara	90
	4. Beef cattle industry		Jabung	60
North Lampung	1. Black pepper	23,898	Tanjung Raja	150
	2. Smallholder coffee	15,777	Tanjung Raja	150
	3. Bunga Mayang (Sugarcane) Plantation	7,000	Bunga Mayang	140
	4. Tulungbuyut (rubber) Plantation	800	Tulung Buyut	160
	5. Cahaya Negeri Research Station	50	Cahaya Negeri	130
Tl Bawang	1. Sugarcane plantation	40,000	Bandar Mataram	160
	2. Shrimp pond	10,000	Rawajitu	250
Way Kanan	1. Rubber plantation	50,000	Blambangan Umpu	208
	2. Mixed tropical fruit	160	Blambangan Umpu	240

\* Distance from capital city of Lampung Province

## SUSTAINABLE PLANTATION IN WEST LAMPUNG

West Lampung Regency has total area of 495,040 ha, of which about 70% is forested and includes national park, natural conservation and protection forests. West Lampung has the smallest gross regional domestic product among the regencies in Lampung Province. Most agricultural land use is adjacent to the forest areas. The local government promotes the area using “conservation regency” as a slogan. For hundreds of years, farmers have conserved the forests by cultivating damar resin trees in “repong” as a forest border. Repong damar forest-like gardens, is local wisdom of farmers in Krui region. Scientists from many countries come and study this farming system and named it “damar agroforestry”. The Ministry of Forestry issued decree No. 47/Kpts-II/1998 that allowed farmers to manage “repong” systems.

In response to issues associated with sustainable coffee production, farmers in West Lampung develop shade coffee plantations, where coffee trees are planted under various shade trees. Some farmer groups growing shade coffee have been certified by Rain Forest certification. Other farmer groups are practicing organic coffee farming. To conserve forests, farmers who have planted coffee inside protected forests that are regulated under a social forestry scheme. Farmer groups that fulfil certain conditions (such as planting a minimum of 400 shade trees per ha and not allowed to cut trees) will receive a licence for social forestry according to the Ministry of Forestry No. 434/Menhut-II/2007. As a result, damar and coffee production in West Lampung are ecological sound and include biodiversity conservation as shown in Table 3.

Table 3. Biodiversity in coffee and damar garden

Agroforestry	Fruit trees	Other trees	Birds **
Coffee mixed plantation	Mango, jackfruit, avocado, banana, guava, orange, salacca, papaya, pineapple, <i>Artocarpus champaden</i>	Sugar palm, candle nut, <i>Gnetum gnemon</i> , clove, cinnamon, black pepper, cocoa, <i>Pithecellobium lobatum</i>	52 species: e.g. <i>Pycnonotus spp.</i> , <i>O. sericeus</i> , <i>Z. palpebrosus</i> , <i>M. dauurica</i> , <i>D. trigonostigma</i> , <i>N. jugularis</i> .
Damar garden*	Durio, mangosteen, <i>Artocarpus champaden</i> , lazons, <i>Baccaurea dulcis</i>	Sugar palm, <i>Parkia</i> sp., coffee, black pepper, <i>Casampinus malabarica</i> , <i>Garcinia hypogrammicum</i> , <i>P. xanthochymus</i> , <i>Pithecellobium lobatum</i>	31 species: e.g. <i>Dicaeum spp</i> , <i>A. simplex</i> , <i>H. capistratum</i> , <i>Pericrotus spp.</i> , <i>Pycnonotus spp.</i> , <i>Macropygia spp.</i> , <i>A. pasificus</i> , <i>C. merulinus</i>

Source: \*Duryat (2006) \*\* O'Connor (2005)

Plantations farmers in Lampung combine industrial commodities for the export market as the main crop and other crops such as fruits and spices basically to fulfil subsistence needs and also to be sold in the local market. Gradually, the producers develop a mixed garden, a place to meet all needs and this has become a way of life of plantation farmers. Mixed gardens are a place to pick fruits, spices, vegetables and to look for food and firewood. They are just like patches of paradise, especially when the coffee is

flowering which is a beautiful sight with white flowers everywhere and a beautiful fragrance. Many birds like to come to the gardens and bird families found in coffee multistrata plantation include the *Accipitridae*, *Falconidae*, *Cuculidae*, *Apodidae*, *Alcedinidae*, *Capitonidae*, *Picidae*, *Hirundinidae*, *Mtacillidae*, *Campephagidae*, *Pycnonitidae*, *Laniidae*, *Turdidae*, *Sylvidae*, *Muscicapidae*, *Dicaeidae*, *Nectariniidae*, *Zosteropideae*, *Ploceidae*, *Sturnidae* and *Artamidae*. Bird families found in damar garden included the *Dicaeidae*, *Nectariniidae*, *Campephagidae*, *Accipitridae*, *Columbidae*, *Apodidae*, *Capitonidae*, *Picidae*, *Eurylaimidae*, *Pycnonotidae*, *Chloropseidae*, *Timaliidae*, *Sylviidae*, *Muscicapidae*, *Sittidae* and *Zosteropideae* (O'Connor, 2005).

In order to minimize forest encroachment and to diversify agricultural production, agrotourism should be developed in West Lampung. Ecological-friendly management, such as damar and mixed coffee gardens, is an essential part of sustainable tourism and has been instigated by local peoples (Fleisher, 2002; Michon *et al.*, 2007). Tourists like to visit sustainable plantations that are environmentally-friendly, economically viable and socially responsible. Tourists do not like to see plantations that damage the forest, cause pollution, have production systems that are not running properly, are not economically viable, or that do not respect and value endogenous peoples. West Lampung has sustainable plantations. These are more than production systems and are the culture of "mountain farmers", with unique agriculture systems (Evizal, 2004), practices, tools and houses. There are some agrotourism places in West Lampung (Table 4) where visitors can involve themselves in farm activities and enjoy the rural lifestyle.

Table 4. Agrotourism locations in West Lampung.

Object	Attraction/activities	Location
Coffee garden	Civet coffee	Way Mengaku
	Organic coffee	Way Tenong
	Coffee and honey	Sumberjaya
	Shade coffee	Liwa
Damar Garden	Damar tapping	Krui
	Sugar palm tapping	Krui
	Fruit picking	Krui
Horticulture	Vegetable harvesting: tomato, chili, cabbage, potato, carrot	Balik Bukit, Sekincau
	Strawberry picking	Sumberjaya
	Flower garden	Balik Bukit

## DISCUSSION

The tourism sector in Lampung could and should be strengthened through the development of linkages among ecotourism, agrotourism and culture tourism, including village or rural tourism. Currently, ecotourism is the leading sector, but agrotourism and agro-entertainment are going to be big businesses in the future. Local government should encourage agrotourism and other forms of tourism. Private and state plantations should develop agrotourism services to link remote tourist places as part of rural region development. Now, the challenge is how to create tour packages that integrate all tourism potentials. However, transportation and accommodation in Lampung are major obstacles. Only tourists with special hobbies or interests are willing to visit and stay in

remote places. Tourists, in general, need convenient places to visit and stay, with unique homestays, restaurants, interesting and local cuisines, and entertainment.

Bandar Lampung is the gateway to the region and the top destination for Lampung tourism as it is surrounded by locations for natural tourism including beaches, parks, forests, islands and also locations for agrotourism in Pesawaran and South Lampung Regency (Table 2). The second top destination is Krui, a small city in West Lampung, about 250 km from Bandar Lampung, along the Western Trans-Sumatera Road. The basic attractions of Krui are natural places including beaches, national parks and lakes. West Lampung Regency also has many places where agrotourism could develop including plantations and vegetable farms. Household products to serve or to bring back home are also available (Table 5).

Table 5. Products as a gifts from West Lampung.

Gift	Product
Snack	Lampung ground coffee
	Civet coffee, organic coffee
	Dodol taffy made of durian, tomato, cucumber
	Chips of banana, cassava, potato, sweet potato
Fresh fruit	Avocado, durian, banana
Handicraft	Krui tapis clothes
	Handicraft made of stone, rattan, wood
Others	Honey of forest bee and coffee bee
	Sugar palm sap, palm sugar
	Blue marlin fish product: meat ball, nugget, smoked meat.

The third top destinations are Kalianda and Sukadana. At Kalianda, the capital city of South Lampung Regency, there is Canti harbour to sail to the Krakatau Islands. There are beautiful places to visit around Kalianda including resorts, beaches, islands and mountains. The potential for agrotourism should be realised and events such as a Krakatau Festival would attract visitors. Sukadana has the opportunity to develop tourism and its national park and archaeological park are the main attractions. Agrotourism due to the production of black pepper and tropical fruit could be linked with existing tourism places and beaches along the eastern coast.

Other regencies in Lampung such as Tanggamus, Central Lampung and North Lampung need more effort to develop tourism sectors; ecotourism should be developed first. Transportation and facilities are again the major obstacles to development. Although Tanggamus Regency has Kiluan Bay, a well-known ecotourism place, it is easier to go there from Bandar Lampung by boat than from Kota Agung, the capital city of Tanggamus Regency. Indeed, Tanggamus Regency has many places where ecotourism could be developed including beaches, islands, mountains, waterfalls, dams, and also has potential of agrotourism through mangosteen and durian production. In the future, Kota Agung may become one of the important tourist destinations in Lampung.

Package tours that link natural tourism and agrotourism, adventure activities, beautiful views and environmental conservation (Catalino and Lizardo, 2004) are the key for sustainable tourism. Agrotourism is characterised by the seasons for planting, harvesting and other activities. Coffee and some tropical fruit trees need the dry season to induce flowering. The harvest season for coffee in Lampung is in May-June, while fruit season may begin earlier. Therefore, agrotourism involving coffee plantations and



tropical fruit gardens should be combined with non-seasonal fruit such as zalacca palm, passion fruit, sapodilla, guava, papaya and dragon fruit as these commodities will extend time when agrotourism activities can be undertaken. Mixed plantings of coffee with fruit and multipurpose trees will increase farmers' incomes and the sustainability of smallholder coffee plantation.

## CONCLUSIONS

- (1) Lampung is well known worldwide for ecotourism locations and has the potential to develop agrotourism to support existing natural tourism or ecotourism.
- (2) West Lampung Regency has potential to develop agrotourism especially plantation agrotourism.
- (3) As agrotourism place, coffee plantation and tropical fruit garden should be planted with non-seasonal fruits.
- (4) Beautiful natural or ecotourism places need the development of transportation, facilities, and agrotourism to develop as top tourist destinations.

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