



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



LEED Programme



## ENTREPRENEURSHIP ABILITY ON ECOTOURISM SERVICES OF LOCAL PEOPLE IN TAMAN NASIONAL BROMO TENGGER SEMERU, MALANG REGENCY, JAWA TIMUR, INDONESIA

Wiwin Purnomowati, Lecturer  
Widyagama University, Malang, Indonesia

Iwan Nugroho, Lecturer  
Widyagama University, Malang, Indonesia

Purnawan Dwikora Negara, Lecturer  
Widyagama University, Malang, Indonesia

### ABSTRACT

*Entrepreneurship is the key word for the local people able to run ecotourism services. Ecotourism services as an economic approach to optimize the benefits from the social aspects and ecology. Ecotourism should be interpreted as farming that could provide jobs, and generate revenue. The study aims to measure an entrepreneurial capacity of local people in economic activities. The survey has been conducted on the Ngadas and Ranu Pane village, under the Bromo Tengger Semeru National Park (BTSNP) area authority. Ecotourism products and services in BTSNP is diverse, ranging from the sand ocean scenery and the crater of Bromo, Semeru ascent, flora and fauna, to the culture of Kasodo and Karo.*

*In Ngadas and Ranu Pane village, local people of the Tengger or Javanese tribes able to play a role in transportation service, lodging, food and beverage stalls or packaging of traditional cultural attractions. Ecotourism business is run with simple management.*



ESSEX  
BUSINESS  
SCHOOL



LEED Programme



Centre for Entrepreneurship Research



*The analysis method of farming option (farm or ecotourism) used a binary logistic regression. Results showed that variables of facilities, experiences and entrepreneurship score showed a positive effect to the tendency of mixed farming, each with a coefficient of 1.1522, 1.6928 and 0.15599. The three variables become a source of inspiration for local people into the entrepreneurial learning process and forming productive behavior in the ecotourism development.*

*Entrepreneurship test result showed that score on farmers was lower than people that trying to business mix (farmer and ecotourism). Most of the people have been involved in tourism development programs of Bromo Tengger Semeru National Park (BTSNP), but the experience has not been produced real benefits to welfare. Therefore the local people need workshops by the relevant stakeholders to improve their skills and knowledge about agriculture, entrepreneurship and ecotourism. This workshops are expected able to increase their income. Besides, in line with the local government program for the tourism development through Ngadas village, it would require upgrading and improvement of road transport and electricity. Promoting tour to the BTSNP via Ngadas village also needs to be encouraged by the local government.*

*Keywords :*

*Entrepreneurship ability, ecotourism, mixed farming, community-based ecotourism*

## **1.Introduction**

East Java, Indonesia has a promising potential for ecotourism development. There are several underlying reasons. *First*, the geography of the East Java region adjacent to the tourist destination of Bali, and Yogyakarta. Jawa Timur is generally regarded as the tourist destination, or complement of the main objectives planned. *Second*, East Java has four national parks (NP) as ecotourism destination areas, namely Bromo Tengger Semeru, Meru Betiri, Baluran and Alas Purwo National parks. In general, four national parks have not produced significant benefits but ecological benefits. *Third*, the social factors surrounding areas need attention in order to have an impact on welfare. Local people around national parks are generally working in the agricultural sector with low capacity farm. Forest and the surrounding environment need to be managed well



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



LEED Programme



in order to produce tangible benefits. Entrepreneurship is the key word for the local people able to run ecotourism services.

Improving the ability of entrepreneurship is the key word for the local people are able to operate ecotourism services and enjoy prosperity. The learning process is very important for them to understand the entrepreneurial ecotourism (Juma and Timmer, 2003). Thus, ecotourism can be defined as farming business that could provide jobs and livelihood, as well as generate income and welfare (Nugroho, 2007).

Efforts to identify the ability of ecotourism services of local people can be the entrance to develop it systematically in the future. For example, Ngadas villagers have experience of interaction with Bromo Tengger Semeru National Park (BTSNP) is long enough (Nugroho, 2006; 2007; Negara, 2006; Nugroho and Negara, 2008). They are often involved in tourism development programs from BTSNP, representing the role of government. However, these experiences have not fully produce tangible benefits in developing ecotourism business services. The results of research showed that the entrepreneurship factor of government does not significantly encourage entrepreneurial locals. Individual entrepreneurship actually born as a result driven by factor of entrepreneurship social. It is unfortunate that the advantages of local cultural values have not been able to accommodate and operate the business benefits of ecotourism services.

The previous studies were conducted to provide the foundation and initial description of the research to be conducted. While fundamental research (Nugroho, 2008; Nugroho, Nugroho and Negara, 2009) succeeded in measuring the entrepreneurial score of individual, social and government in three villages in the area of BTSNP. Studies have also managed to develop entrepreneurial structure, which can explain the factors that influence the development of local entrepreneurship. Findings from the study or survey description above, still within the scope of the excavation perceptions about entrepreneurship. This study tried to enter the scope of real economic activity ecotourism. Both are capital for the preparation of tourism development model based on the local people.

Preliminary studies and surveys in the form of the description above, is still reviewing or developing concepts on the basis of perceptions about entrepreneurship. The building concept is still to be tested or fitted with the phenomenon of real economic activity in ecotourism services. This study tried to enter the space of real economic activity by measuring economic performance and assess the needs for the preparation of tourism development model based on the local people. The study aims to measure the capacity of local people in economic activity, by measuring the tendency of option business (farm or business mix).

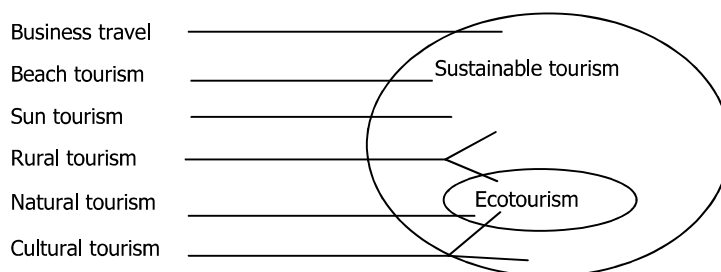
## 2. The Purpose of The Study

The study aims to measure the capacity of local people in economic activities in farming or ecotourism.

### 3. Theoretical Background

#### 3.1. Ecotourism

Ecotourism is a part of sustainable tourism. Sustainable tourism is an economy sector that broader than ecotourism that includes sectors supporting tourism activities in general, including marine tourism (beach and sun tourism), rural tourism (rural and agro-tourism), nature (natural tourism), cultural tourism or a business trip (business travel). Figure 1 shows that ecotourism rests on three legs at once, ie, rural tourism, nature tourism and cultural tourism. According to the declaration of Quebec in 2002, ecotourism is sustainable tourism that specifically includes the following efforts: (i) the conservation of nature and culture, (ii) participation of local people to enjoy the welfare, (iii) transfer of knowledge about the cultural and natural heritage to visitors, (iv) the form of independent travel or small tour groups.



**Figure 1. Sustainable tourism and ecotourism (Wood, 2002)**

Based on the concept or the definition above, the authors summarize as follows:

*“Ecotourism is an activity packaged in a professional travel, trained, and includes elements of education, as a sector / economic enterprises, which consider the cultural heritage,*



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



LEED Programme



*participation and the welfare of local people and also conservation efforts of natural resources and environment”.*

### **3.2. Community-Based Ecotourism**

Community-Based Ecotourism is an ecotourism business that owned, managed and supervised by the local community. Society plays an active role in tourism development activities from planning, implementation, monitoring and evaluation. Results ecotourism activities may be enjoyed by as many local people. So in this case the community has adequate authority to control the activities of ecotourism.

Ecotourism is a community-based ecotourism business that focuses on the active role of the community. It is based on the fact that people have knowledge about nature and culture that can be the attractive value for tourists so the community involvement becomes absolute. Community-based ecotourism can create employment opportunities and reducing poverty where the income comes from service fees of ecotourism guides, transportation, homestay, selling handicrafts and so on. Ecotourism brings positive impact to the environment and indigenous cultures are expected to foster identity and pride in the local population due to increased ecotourism activity.

Some key aspects of community-based ecotourism are:

1. Community forms committee or institution for the management of ecotourism in the region with the support of government or public organizations
2. Local ownership principle be applied to tourism facilities and infrastructure, ecotourism and others.
3. Homestay will be main choice accommodation facility at tourist sites.
4. Tour guides are local people.
5. Planning, management and maintenance of tourism is the responsibility of the local community, including the determination of fees for tourists.

### **3.3. Previous Research**



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



LEED Programme



Product ecotourism services in BTNSP is very diverse, ranging views of sand ocean and the crater of Bromo, Semeru hiking, flora and fauna, Kasodo and Karo culture. In Ranu Pane, as a base camp of Semeru hiking, economic activities include porter services, transportation (jeeps), lumping horse dance, stalls, shops and lodging services. Transportation services will deliver visitors to Bromo or Semeru in shades of off-road adventure (Nugroho, 2006).

Visitors Kasodo crowded increasingly during the ceremony in December. Local people in Ngadisari rent out houses with lighting and simple sanitation, worth up to 100-200 thousand rupiahs per night. Visitors can hire a Jeep of 12 people for 400 thousand rupiahs from Tumpang (Malang) to Ranu Pane. Other services, horses are rented for 50 thousand rupiahs to take visitors from the sea of sand to the top of Bromo.

Entrepreneurial abilities of local people are relatively low in Ngadas village. It is showed by low scores of entrepreneurship test (Nugroho, 2008) in Ngadas than in Ngadisari (Probolinggo district) or Ranupane (Lumajang district). Villagers in Ranupane and Ngadisari have a better skill and management of ecotourism business services than Ngadas villagers (Nugroho, 2006; Nugroho and Negara, 2008).

Limitations of Ngadas village is being realized by the local government of Malang. Therefore, tourism development program through the Ngadas village to the Mount Bromo become a priority. Improving the welfare of local people will have a positive impact for the maintenance of ecological functions and environmental sustainability. The potency of Ngadas village become part of the development area of Malang Regency agropolitan that directed to Poncokusumo district.

Efforts to develop tourism services of local people in the Ngadas village have often done. They are often involved in tourism development programs from BTSNP, though it have not yet yielded tangible benefits in welfare. It seems that there are significant differences between BTSNP represent components of the government and local people to understand and operate ecotourism services. The research result of the author (Nugroho, 2008) showed that the factors of government entrepreneurship does not significantly encourage entrepreneurial of local people. Individual entrepreneurship actually born as a result driven by factors of social entrepreneurship. Therefore the advantages of local cultural values need to be formulated and accommodated in the ecotourism business services. Social entrepreneurship needs to be built to encourage the birth of ecotourism entrepreneurs.

Ranu Pane Village, sub Senduro, Lumajang district lies at an altitude of 1500 to 2000 m asl in the southern of Tengger mountainous. Ngadas village is about 55 km from the city of Lumajang. Ranu Pane village is the entrance route to the top of Semeru, therefore, the smooth asphalt roads built by the local governments to provide a convenience for visitors. Ranu Pane is also accessible from the Ngadas village but with macadam road conditions. Ranu Pane village has a population of about 3000 people or 550 family heads. Generally people work as farmers



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



LEED Programme



with commodity garlic, red cabbage, potatoes, carrots and other vegetables. There are people who trade and become tour guides, and rent out their homestay. Ranu Pane comes from the name of the lake in this area, covering approximately 20 hectares. Tengger culture in Ranu Pane village already thinned by the influence of immigrants from Madura or Javanese tribes. Ranu Pane village is relatively known by people. The people is also very open to newcomers. The ability of entrepreneurial of locals in Ranu Pane are relatively high, with farm work is relatively diverse and ecotourism services, with fairly good skills than Ngadas (Nugroho, 2006; Nugroho and Negara, 2008).

Efforts to develop local tourism services in the village of Ranu Pane has been running. The locals are often involved in tourism development programs from BTSNP, with the degree of intensity high enough to produce real benefits and welfare, mainly due to high tourist traffic to climb Semeru. Ranu Pane is a place for education and training for SAR or nature lover, which ended with trekking to Mount Semeru. Writers often see locals guide (as porter) foreign tourists or local visitors who climb Semeru. Activities demanding interpretation of learning and mastery of the philosophical to the practical by local people regarding environmental assets, cultural and other characteristics. It is then transferred to visitors so as to produce the experience and satisfaction.

#### 4. Method

The survey was conducted in Ngadas village (Sub Poncokusumo, Malang, East Java, Indonesia) and Ranu Pane (Sub Senduro, district Lumajang, East Java, Indonesia). The sample of respondents drawn randomly grouped into livelihood (i) as farming and (ii) farm and ecotourism services concurrently, each by 55 and 63 respondents. Restrictions follow Manurung (2002), ecotourism business services comprises at least six types include (i) the sights and attractions and cultural environment, (ii) the benefits landscape, (iii) accommodation and service facilities, (iv) equipment, (v) education and skills and (vi) award.

Trend analysis method of choice of business (farm or ecotourism) using qualitative choice function (binary logistic regression) (Pindyck and Rubinfeld 1991):

$$\ln P_2/P_1 = f(i, K_i, KWI)$$

where 2 = farm and (concurrently) ecotourism business or the business mix

1 = outside of farming or tourism services

$P_2/P_1$  = ratio of the probability of mixture of business opportunities on the farm

$i$  = group of individual variables (including age, education, business income),



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



LEED Programme



$K_i$  = experience variable (out of town, follow the training, interaction with BTSNP)

$K_{WI}$  = entrepreneurship test score (CRE, 2003).

$i$  = respondent (1 to  $n$ )

## 5. Results

Ngadas Village, District Poncokusumo, Malang Regency is situated at an altitude of 1800 up to 2200 m above sea level (asl), situated west of the Tengger mountains (Mount Bromo). Ngadas village has a population of about 1600 people or 350 family heads. Ngadas is about 45 km from the city of Malang. Towards Ngadas, only paved road infrastructure up to the Gubuk Klakah village, the rest to Ngadas be replaced by concrete macadam road use of vehicles off-road jeep. Most of the people work as farmers of cabbage, potatoes, carrots. There are few people become trader and mason, and rent out jeep or motorbike to serve visitors to the various locations in the area of BTSNP. The culture of Tengger inherent strongly it's escorted by the shaman figures, to lead rituals, mantras and offerings.

Ecotourism products that can be developed in the Ngadas vikkage, namely (i) the landscape and environment and cultural attractions, such as : Coban Pelangi waterfall, traditional ceremonies such as Kasodo, karo, unan-unan, entas-entas, pujan mubeng (ii) the benefits of landscaping, such as offroad (iii) accommodation and facilities support services, such as homestay, tour guide and (iv) equipment and supplies, such as jeeps, motorcycles.





Figure 2. Area of Bromo Tengger Semeru National Park (BTNSP)

Results of analysis showed statistical description of the variables age, education facilities, the experience, score of entrepreneurship test and income (Table 1). Variables inherent to the respondent farmers and mix farming each by 55 respondents (47 percent) and 63 respondents (53 percent), as well as efforts to deepen the discussion. The average age of all respondents is 41.95 years, while farmers and mix farming respective 42.93 and 41.10 years. Based on t test, there was no significant difference in age of the respondent farmers and business mix.

Table 1. Average of the observed variable

<b>Variables</b>	<b>Farm</b>	<b>Mix farm</b>	<b>Average</b>	<b>Explanation</b>
Average age (years)	42.93	41.10	41.95	p=0.420
Graduated from high school or above (percent)	0	15.9	7.9	
Owned facilities, motorcycle or car (percent)	41.82	80.95	63.25	
Experience, ever worked outside the city or training (%)	5.45	36.51	22.61	
Entrepreneurship test scores	30.35	36.33	33.54	p=0.000
Income per year (rupiahs)	6277927	14202349	10508763	p=0.022

Based on the level of education, most farmer respondents (94.5 percent) complete the primary school and the rest as much as 5,45 percent did not complete it. While the respondents who tried to mix farm as much as 84.1 percent of primary school graduates, and passed on junior



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



LEED Programme



high school or above as much as 15.9 percent. On average, 7.9 percent of respondents completed their education above elementary school. In the Ngadas and Ranupane villages, elementary school has been available for the children. But to proceed to secondary school, the students should proceed to a nearby district with a distance of about 10 km or travel for 30 minutes with macadam road terrain.

A total of 41.82 farmer respondents have motor or car. While as many as 80.95 percent of respondents who run business mix have these transportation means. Means of transport is very important to support community life in these two villages, to transport the grass, drive to school, and serve ecotourism visitors or other purposes. Overall, 63.5 percent of respondents have a means of transportation. Means of transportation help the mobility of people to run their lives, even for trivial things such as going to the fields or looking for grass.

A total of 5.45 percent of farmers had worked outside the city or training ecotourism. This experience found more on business mix respondents that is 35.51 percent. This experience is a valuable capital that provides the foundation for entrepreneurship, such as communication and networking capabilities, expanding the horizon views, and control risk. Some residents also gain experience interacting with BTSNP (Bromo Tengger Semeru National Park) who have regular programs to develop ecotourism business.

Entrepreneurship test results showed an average score of all respondents of 33.54. This score on the farmers (30.35) was lower than that business mix respondents (36.33) with a level difference is significant (t test,  $p = 0.0000$ ). According to the CRE (2003), all respondents classified as high-minded entrepreneurs (in the range of 30-39). The results of this study do not differ by study Nugroho and Negara (2009), who found scores of entrepreneurship in the villages of Cemorolawang (38.21), Ranupane (36.00) and Ngadas (34.45).

The respondents had an average income of 10,509 million rupiahs per year. Income is found to be higher in business mix, ie 14.202 million rupiahs per year, while income from farming for 6.278 million rupiahs per year. Income differences are very significant ( $p = 0.0022$ ). This shows that the business mix, which includes ecotourism business providing significant value added for the locals.

Results of research in the Ngadas and Ranu Pane villages shows that it discovered two of livelihood, namely farming and business mix. Business mix includes agricultural, tourism and other business enterprises. The analysis of livelihood options implemented using logit models (binary logistic regression) with two options, namely farming and business mix. The discussion of the ecotourism business is implicitly embedded in the business mix.

The result of estimation on the factors that influence the choice of business (farm or ecotourism) is presented in Table 2. Prediction results showed that the G statistic is significant, ie, with  $p$  less than 0.01. This result shows there is a value of coefficient estimators are not

equal to zero in between all the variables that were included in the estimation. Therefore, the results of estimation can be considered feasible statistically.

Income Variable is not significant (up to level  $p = 0.05$ ) on the tendency of business options. Income coefficient is 0.0304, which also show the income elasticity. This means increased revenue of 10 percent can increase the probability for choice of business mix towards farming at 0.30 percent. That number is very small because the coefficient was not significant. The same thing happened on the variables of age and education, which do not significantly affect the livelihood options. Variables facilities affect the choice of business mix significantly. This shows that the motor or car ownership is an important capital. Transportation has become a classical problem in almost all areas of the national parks (USAID Indonesia, 2004). Hence the availability of transportation will have real economic multiplier for tourism development and increased economic value and the welfare of local people.

Table 2. Logistic Regression Prediction of Business Mix Options Against Farming

<b>Variable (prediction of business mix to farming)</b>	<b>Coefficient</b>	<b>Odds Ratio</b>	<b>P</b>
Constants	-6.316		0.088
Ln Income (rupiahs per year), in logaritma value	0.0304	1.03	0.891
Age average	-0.00669	0.99	0.749
Education, elementary school graduates	19	1.57E+08	0.998
Facility, own motorcycle or car	1.1522	3.17	0.019
Experience, ever worked outside of town or followed training	1.6928	5.43	0.028
Entrepreneurship score	0.15599	1.17	0.002

Note : G statistic = 49.322, DF = 6, P = 0.000

As previously mentioned, these vehicles used to transport the grass, motorcycle transportation, drive to school, and to serve tourists or other purposes. Experience also produces significant influence to encourage the development of ecotourism enterprises, with a regression



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



coefficient of 1.6928 ( $p = 0.0028$ ). Experience working outside the city or training can open horizons of the people to enter the process of entrepreneurial learning (Juma and Timmer, 2003), thus forming productive behavior in the ecotourism business services. Same tendency is also indicated by the variable scores of entrepreneurship, with a coefficient of 0.156 ( $p = 0.002$ ). Of course this is highly relevant and consistent. Entrepreneurship Score is a measure of the perception that success to gave birth ecotourism entrepreneurship behavior.

The study shows that governmental entrepreneurship influence on individual entrepreneurship through the intervening variable of social entrepreneurship, individual characteristics and experiences, each with a regression coefficient of 1.125, 1.005 and 0.014. These results suggest that social entrepreneurship to be the strongest bridge for the influence of the governmental entrepreneurship towards the individual entrepreneurship. In other words, this study could prove that the development of social entrepreneurship is a necessary condition for the government to develop the individual entrepreneurship. More importantly, governmental entrepreneurship becomes the initial capital to start building the public trust.

## 6. Implications

- a. Entrepreneurial ability of the local people of Ngadas Village are relatively low compared with Ranu Pane people. Entrepreneurship test result showed that score on farmers was lower than people that trying to business mix (farmer plus ecotourism). Most of the people have been involved in tourism development programs of Bromo Tengger Semeru National Park (BTSNP), but the experience has not been produced real benefits to welfare. Therefore the locals need workshops by the relevant stakeholders such as Department of Agriculture, Department of Tourism and Department of Small Medium Enterprises to improve their skills and knowledge about agriculture, entrepreneurship and ecotourism. This workshops are expected to increase their income.
- b. In line with the local government program for the tourism development through Ngadas village, it would require upgrading and improvement of road transport and electricity. Tourism promotion to the BTSNP through Ngadas village also needs to be encouraged by local government.

## 7. Conclusion

- a. Respondents consisted of farmers and who tried to business mix each by 55 (47 percent) and 63 respondents (53 percent), with an average age of all respondents is 41.95 years.



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



LEED Programme



- b. Entrepreneurship test results showed an average score of all respondents of 33.54. This score on the farmers (30.35) was lower than that trying to mix (36.33) with a level difference is significant (t test,  $p = 0.0000$ ).
- c. Variable of facilities (bike or car ownership), experience (work outside the city or training) and a score of entrepreneurship provide a significant positive influence on the tendency of a mixture of business or ecotourism options, each with a coefficient of 1.1522, 1.6928 and 0.15599. These three variables are a source of inspiration for people into the entrepreneurial learning process, thus forming productive behavior in the ecotourism business services.

## References

- CRE (Centre for Rural Entrepreneurship). (2003). Entrepreneurship Quick Test: tools for energizing entrepreneurship. [www.ruraleship.org](http://www.ruraleship.org)
- Ibrahim, Y. (2003). *Studi Kelayakan Bisnis*. Penerbit Rineka Cipta.
- Juma, C. and V. Timmer. (2003). "Social Learning and Entrepreneurship: A Framework for Analyzing the Equator Initiative and the 2002 Equator Prize Finalists." Working paper of 5 December 2003.
- Manurung. (2002). Ecotourism in Indonesia. In: Hundloe, T (ed.). Linking Green Productivity to Ecotourism : Experiences in the Asia-Pacific Region. Asian Productivity Organization (APO), Tokyo, Japan. 98-103
- Negara, P. D. (2006). Perilaku Hukum Masyarakat Tengger terhadap Tanah pada Daerah yang Mengalami Industrialisasi Pariwisata. Studi Kasus di desa Ngadisari, Kecamatan Sukapura, Kabupaten Probolinggo. Lembaga Penelitian dan Pengabdian Masyarakat (LPPM), Universitas Widyagama Malang (Tidak Dipublikasikan)
- Nugroho, I dan P. D. Negara. (2008). "Produk dan Jasa Ekowisata di Jawa Timur". *TEROPONG*, Balitbang Provinsi Jatim. 38 (Maret April 2008):26-29. ISSN 1412-8829
- Nugroho, I. (2008). "Uji Kewirausahaan untuk Mengukur Karakteristik Kewirausahaan Penduduk Lokal pada Jasa Ekowisata di Taman Nasional Bromo Tengger Semeru". *Penelitian Fundamental*, DP2M, DIKTI. 2008
- Nugroho, I. (2006). "Mengangkat Ekowisata Ngadas di Kawasan Bromo Tengger Semeru". *TEROPONG*, Balitbang Provinsi Jatim. 28 (Juni-Agustus 2006):21-23.
- Nugroho, I. (2007). "Ekowisata: Sektor Riil Pendukung Pembangunan Berkelanjutan". *Majalah Perencanaan Pembangunan-BAPPENAS Jakarta*. Edisi 2 tahun ke XII (Januari-Maret): 44-57. ISSN: 0853-3709



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



- Nugroho, I. (2006). “Mengangkat Ekowisata Ngadas di Kawasan Bromo Tengger Semeru”. *TEROPONG*, Balitbang Provinsi Jatim. 28 (Juni-Agustus 2006): 21-23.
- Nugroho, I. dan P. D. Negara. (2008). “Produk dan Jasa Ekowisata di Jawa Timur”. *TEROPONG*, Balitbang Provinsi Jatim. 38 (Maret April 2008):26-29. ISSN 1412-8829
- Nugroho, I., P.D. Negara dan Y. A. Nugroho. (2009). “Karakteristik Kewirausahaan Penduduk Lokal Pada Jasa Ekowisata di Taman Nasional Bromo Tengger Semeru”. *Social Economic of Agriculture and Agribusiness (SOCA) Journal*. 9(3) : 342-346.
- Pindyck, R. S. and Rubinfeld D. L. (1991). *Econometrics Models and Economic Forecasts*. Third Edition. McGraw-Hill, Inc.
- USAID Indonesia. 2004. Report on Biodiversity and Tropical Forests in Indonesia Submitted in accordance with Foreign Assistance Act Sections 118/119.
- Wood, M. E. 2002. *Ecotourism: Principles, Practices and Policies for Sustainability*. UNEP. <http://www.unepie.org/tourism/library/ecotourism.htm>



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



LEED Programme



## Appendices



Agricultural land in Ngadas Village



Savanna Valey in TN BTS



ESSEX  
BUSINESS  
SCHOOL

Centre for Entrepreneurship Research



LEED Programme



Interview with respondent

### Acknowledgement

The author would like to thank to some of the parties: (i) Directorate General of Higher Education, cq P2M director, who is pleased to fund this research, (ii) Chief of Research institution, Widyagama University for his support, (iii) the Rector, Dean and Chair of the Department of Agribusiness, Faculty of Agriculture, University of Widyagama, who has supported fully the implementation of research, (iv) Agus Wiyono and Emy Endah Suwarni (TN-BTS), Tri Wardani, Rita Hanafi, Mulyono, Mulyadi for contributing to the discussion.