



**12th EBES CONFERENCE - SINGAPORE
PROGRAM & ABSTRACT BOOK**

**JANUARY 9-11, 2014
SINGAPORE**

**HOSTED BY
NANYANG TECHNOLOGICAL UNIVERSITY
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

**www.ebesweb.org
ebes@ebesweb.org**

Indirect Growth Rates of the Information Model for the Liabilities for Harmful Consequences for Patients

Jelena Zanic Mikulicic, Croatia; Blanka Ivancic Kacer, Faculty of Maritime Studies in Split, Croatia; Rosanda Mulic, Faculty of Maritime Studies in Split, Croatia; and Vinko Viducic, Faculty of Maritime Studies in Split, Croatia

REGIONAL STUDIES

Room: HSS SEMINAR ROOM 9

Chair: John Hicks

Analysis of Service Performance at RSUD Ulin Banjarmasin (Ulin General Hospital) Using Value for Money Concept

Wahyu Sapto Rini, STIE Indonesia Banjarmasin, Indonesia; Muhammad Maladi, STIE Indonesia Banjarmasin, Indonesia; and Gemi Ruwanti, STIE Indonesia Banjarmasin, Indonesia

Matt Damon meets Gary White: The Rise of Microcredit at Water.Org

Martin Stack, Rockhurst University, U.S.A.

European Union and the Post-Soviet Regionalism in Central Asia

Agnieszka Konopelko, Bialystok University of Technology, Poland

Calculation of Hunger and Poverty Threshold at NUTS2 and Regional Mapping

Murat Atan, Gazi University, Turkey; Yucel Uyanik, Gazi University, Turkey; Hasan Ture, Gazi University, Turkey; and Yalcin Arslanturk, Gazi University, Turkey

Income Level of the Population around Protected Forest Areas in Lubuklinggau, South Sumatera, Indonesia

Taufiq Marwa, Sriwijaya University, Indonesia; Azwardi, Sriwijaya University, Indonesia; Abukosim, Sriwijaya University, Indonesia; Nazali Adnan, Sriwijaya University, Indonesia; and Subardin, Sriwijaya University, Indonesia

Present Calls: Whether the "Post-Regional" Stage of Development of the Federal Relations is Possible?

Artur M. Yusupov, Kuban State University, Russia

LUNCH: 12:40 - 13:20

SESSION II: 13:20 - 15:20

GROWTH & DEVELOPMENT II

Room: HSS SEMINAR ROOM 3

Chair: Sung Soo Lim

Tapping Funds for Development: A Case for Sukuk Financing

Abdelaziz Chazi, American University of Sharjah, U.A.E.; Narendar Rao, Northeastern Illinois University, U.S.A.; and Lateef Syed, Robert Morris University, U.S.A.

Comparative Sources of Growth: Empirical Panel Dynamic Model of the Rich and the Poor

Paitoon Kraipornsak, Chulalongkorn University, Thailand

Managing the Economic Development of the Corporate Enterprise, Taking into Account Institutional Factors

Nadezhda Kvasha, Baltic Academy of Tourism and Business, Russia and Ilya Evgenjevich Shitikov, St. Petersburg State Polytechnical University, Russia

Poverty Decomposition by Regression Application to Tanzania and Côte d'Ivoire

Tomoki Fujii, Singapore Management University, Singapore

INCOME LEVEL OF THE POPULATION AROUND PROTECTED FOREST AREAS IN LUBUKLINGGAU, SOUTH SUMATERA, INDONESIA

By

**Taufiq Marwa, Azwardi, Abukosim, Nazeli Adnan, Subardin
Economics Faculty, Sriwijaya University, Indonesia
taufiqmarwa@yahoo.com**

ABSTRACT

This research tries to explore the level of societies' income which live near by the protected forest. The income which is revealed comes from the unrelated effort of protected forest and it is got from the use of natural resources in that area. This research is expected to know societies' dependence of natural resources near the place. It is done in Lubuklinggau, South Sumatera, Indonesia, a district in the border of protected forest, Kerinci Seblat National Park. The result of this study shows that the societies' dependence towards the natural resources are quite high, the reason is because their income comes from those materials that can be found in there. The natural resources which are used there, such as timber, rocks and various kinds of animals. This protected forest is also used to plant crops, paddy, rubber, durian, and coconut. Most of the income of those people who utilize the natural resources in Kerinci Seblat National Park is above Rp. 100.000,- per day (43,3%), Rp. 10.000 – Rp. 20.000 per day (16,7 %), Rp. 20.000 – Rp. 50.000 per day (1,7 %) and Rp. 50.000 – Rp. 100.000 (38,3%).

Key words:

Income

Protected forest

Natural resources

Kerinci Seblat National Park

1. INTRODUCTION

The increasing of population cause materials need to be provided and fulfillment of daily needs, there is also the increasing pressure of natural resources and environment as the impacts of life fulfillment of needs, not even forest resources. The use of natural resources has been lack of control (overused) by ignoring the aspect of preservation which can damage them and environment.

The utilization of natural resources, especially forest's resources in fulfilling the needs and improving the societies' welfare near it, so it is very important to keep them everlasting and prevent the damage. In fulfilling the societies' need and improving their welfare, it is very important to apply forest management strategy which involves the people to participate in all activities, it is related to the establishment of forest as national park. According to the 1990 Constitution no. 5 about conservation of natural resources and its ecosystem, national park is a park in use for conservation purposes, has the real ecosystem which is managed in zoning system for research, knowledge, education, cultivation support, tourism, and recreation. In that constitution, it is clear that natural resources conservation guarantee the utilization will be used wisely and continuously of supplies by maintaining and increasing its quality of value and diversity.

Kerinci Seblat National Park in Lubuk Linggau has very potential natural resources, good soil and fertile for agriculture and plantation, natural rocks and tourism which can be expanded. On the other hand, some factors, such as lack of understanding and taking care of resources ecologically or economically create more significant domino effects to some villages or areas near the national park. The use of natural resources by the societies and tourists with all the impacts is interesting to be analyzed.

The objectives of this research are:

- a. To identify the pattern of natural resources' used in Kerinci Seblat National Park by the societies
- b. The significance of the societies' dependence towards the natural resources in Kerinci Seblat National Park
- c. The significance of the income from the industries which utilizes the resources in Kerinci Seblat National Park
- d. To identify the relation between the land ownership and the working hours in Kerinci Seblat National Park

2. FRAMEWORK AND RESEARCH METHOD

Systematically, framework of this research is shown in the following figure:

berikut ini.

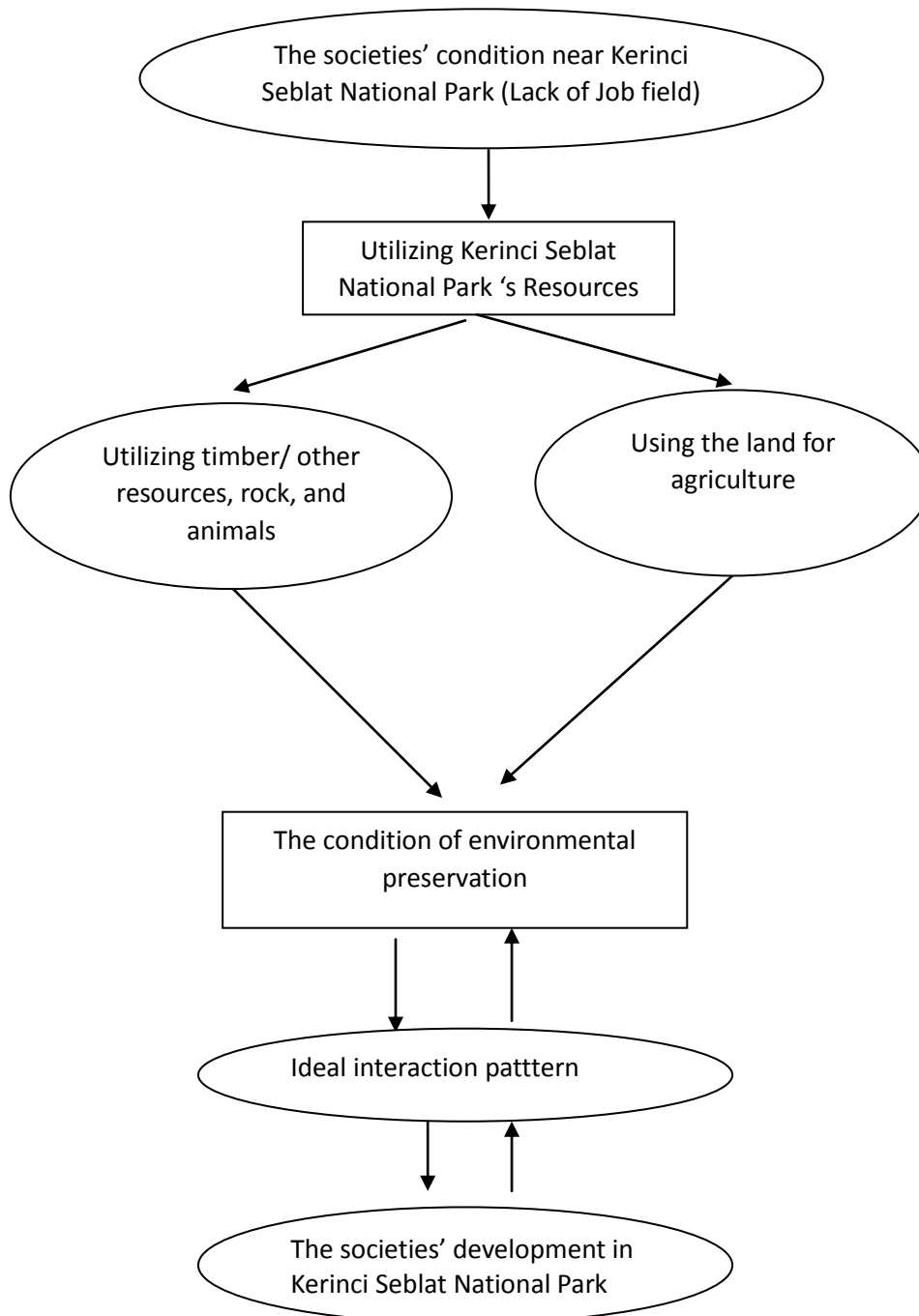


Figure 1: Research Framework

In order to explore the utilization of resources in Kerinci Seblat National Park, to identify the societies' dependence towards the resources and the relation between land ownership, so the researcher does a survey in some villages as samples and direct interview to the respondents.

Findings and Discussion

3.1. The allocation of Kerinci Seblat National Park

The protected area of Kerinci Seblat National Park is a national preservation area which has pure ecosystems, maintained in zoning system, can be used for research purpose, knowledge, education, culture, tourism, and natural recreation place. Based on Ditjen PHPA No.129/Kpts/Dj-VI/1996 December 21st 1996 about the protected area's management, states that societies deserve to get chances in that zone and its utilization.

According to the data given by the administration staff of Kerinci Seblat National Park SPTN V in Lubuk Linggau, it can be known that the zoning division, determination's criteria, allocation and legalized activities in each zone are:

1. Main Zone

a. Basic of Determination

Main zone is a part of national park that has good natural conditions, never exploit by human and important to be protected, functioned as security key habitats to preserve the biodiversity of native plants and animals.

b. Criteria

- Having biodiversity of native plants and animals and so does the ecosystem.
- Representing certain biota or other units which become the native of ecosystem in national park and has not been exploited by human.
- Having good natural condition either the biota or its native physic.
- The land must be enough to guarantee the life of biodiversity, to support the effective management and ensure that the ecology process runs naturally.
- Having potential characteristic that can be example of its existence in conservation.
- Having endangered plants and animals
- Having endemic habitats such as plant and animals

- A habitat where migrants' animals live

c. Allocation

The protection of ecosystems, preservation of native and wild flora and fauna which are easily attacked by others and the alteration of germplasm, for the sake of research purpose, development of knowledge and cultivation support.

d. Legal Action

- Protection and security
- Inventarizing and monitoring the biodiversity and its ecosystem

2. Forest Zone

Forest zone is a part of national park which can be able to support preservation of main and utilization zone because of its location, condition and potential.

a. Criteria

- It is a homerange which can protect and support the breeding of wild animals
- Having ecosystem or biodiversity which might be able to support the preservation of main and utilization zone.
- the habitat of migrant animals live.

b. Allocation

This zone is used for preservation and utilization actions of resources for the sake of research, conservation study, tourism, migrant animals, and cultivation support.

c. Legal Actions

- Protection and Security
- Inventarizing and monitoring the biodiversity and its ecosystem
- Developing research, education, tourism, environmental service and preservation action
- Developing habitat and population in order to increase the wildlife population
- Providing facilities and infrastructure for research, education and tourism purposes

3. Rehabilitation Zone

Rehabilitation zone is a part of national park which has been damaged by encroachment, illegal logging, road construction, etc, so it is a kind of restoration action for biodiversity and ecosystem.

a. Criteria

There are some physical alteration, nature and biology ecologically which can affect the preservation of ecosystem on how the restoration needs human intervention too

- There are invasive species which harm the native species
- The area's restoration needs at least 5 years long

b. Allocation

To restore the ecosystem in the damaged area and keep the existence of agriculture and plantation which have been done there.

4. Utilization Zone

a. Criteria

- Having natural attraction such as flora, fauna or some certain beautiful and unique ecosystem formations.
- Having sufficient area to keep the potential preservation and attraction for tourism and natural recreation.
- Developing the utilization of environmental service, natural tourism, research and education are supported by the condition in that area.
- The location enables to provide facilities and infrastructure for environmental service, natural tourism, research and education are supported by the condition in that area.
- The area is not directly connected to the main zone.

b. Allocation

Is a place for developing natural tourism and recreation, environmental service, education, research and its use, and conservation.

5. Special Zone

Is a part of national park which becomes the place where communities live with all facilities they need such as telecommunication, transportation and electricity. It happens because they have been living there before it was established as national park.

a. Criteria

- Having communities that have been living there before establishment, with all facilities they need.
- Having facilities and infrastructures such as telecommunication, transportation and electricity.
- The area is not directly connected to the main zone.

a. Allocation

This zone is used for all people who have been living there and all facilities that cannot be separated from them, telecommunication, transportation and electricity.

6. Traditional Zone

Traditional zone is a part of national park which has been set for traditional utilization of resources as society's welfare.

a. Criteria

Having potential and certain non-timber resources condition which have been used traditionally by the communities for their basic needs.

b. Allocation

This zone is used to utilize some certain potential of national park by the communities wisely through controlling the utilization for the sake of human basic needs.

c. Legal Action

- Providing Protection and Security
- Stocktaking and Monitoring the utilized potential by society
- Developing habitat and population
- Research and development
- Utilizing the potential and resources condition based on some agreements and rules.

3.2. Kerinci Seblat Respondents' Condition in Kerinci Seblat National Park

3.2.1. Age and Education Level

The total of respondents is 60 persons, dominated by 78,3 % adults above 40 years old and the rest is 21,7% at the age 31-40. Based on education side, the respondents' profile can seen in this following table:

Table 1. Respondents' Education Profile

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Postgraduate	1	1,7	1,7	1,7
High School	17	28,3	28,3	30,0
Junior High School	13	21,7	21,7	51,7
Elementary School	29	48,3	48,3	100,0
Total	60	100,0	100,0	

Source: taken from field investigation's result 2013

3.2.2. Resource Utilization Pattern

The resources' utilization in Kerinci Seblat National Park includes (1) agriculture/plantation, (2) timber (3) animals and (4) rocks. The survey that has been done shows the percentage of utilizing resources in that area:

Table 2. Resources' Utilization in Kerinci Seblat National Park Region V Sumsel

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Agriculture/ Plantation	29	48,3	48,3	48,3
Lumbering Timber	10	16,7	16,7	65,0
Animal's Hunting	2	3,3	3,3	68,3
Rock's Mining	19	31,7	31,7	100,0
Total	60	100,0	100,0	

Source: taken from field investigation's result 2013

Table 2 shows that the biggest percentage, 48,3% of utilization goes to agriculture/plantation. It includes rubber plantation (either the owner or worker) and crops. Besides that 31,7% for rock's mining, 16,7 % for lumbering timber and 3,3 for animal's hunting.

Kerinci Seblat National Park's utilization has been so important for the societies' income to support their daily needs, based on the survey, most of them (43,3%) can get more than Rp. 100.000,- per day. Below is the data of societies' income in utilizing the resources:

Table 3. The Societies' Income –per day in Kerinci Seblat National Park

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Rp 10.000 - Rp 20.000	10	16,7	16,7	16,7
Rp 20.000 - Rp 50.000	1	1,7	1,7	18,3
Rp 50,000 - Rp 100,000	23	38,3	38,3	56,7
> Rp 100,000	26	43,3	43,3	100,0
Total	60	100,0	100,0	

Source: Taken from field investigation's result 2013

High income in this area encourages the societies to utilize the natural resources. However, this utilization will also create some positive and negative impacts. The area is actually used based on the needs only, so they sometimes ignore the legal aspects that must be followed. Direct utilization has been so common (60), meanwhile there are only 25% from those who have got ownership and followed by sharing system between worker and owner (15%). Specifically the data below shows the way how to utilize the resources:

Table 4. Utilizing Resources in Kerinci Seblat National Park

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Taking without permission	36	60,0	60,0	60,0
Taking because the ownership	15	25,0	25,0	85,0
Taking and sharing	9	15,0	15,0	100,0
Total	60	100,0	100,0	

Source: taken from field investigation's result 2013

3.2.3. Level of Dependence towards Kerinci Seblat National Park

Economically, there are many resources that can be utilized in Kerinci Seblat National Park, for this reason people in that area are being dependent in all kinds of utilization patterns. The survey of 100% respondents shows that the main reason why they become like that is because (1) there is no other places (35%), (2) more beneficial, (3) no rental costs, and (4) others (1,7%). Implicitly, the main reason is to get income. The table below shows specific data about it:

Table 5. Dependence's Reasons toward Kerinci Seblat National Park

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	There is no other places	21	35,0	35,0	35,0
	More beneficial	20	33,3	33,3	68,3
	No rental costs	18	30,0	30,0	98,3
	Others	1	1,7	1,7	100,0
	Total	60	100,0	100,0	

Source: Taken from field investigation's result 2013

On the other hand, lack of control in the process of utilizing the area will cause environmental damage. Based on the constitution No. 5, 1990, it is clearly stated that national park is a preservation area in zoning system which means that utilization without any development might impact the environmental damage and break the law. In doing the survey, the researcher also tries to conduct deep interview, some of the respondents (93,3%) ready to leave the area if there are other alternatives/solutions, for examples, small home industry, plantation and constructive development.

3.2.4. Land Ownership and Working Hours

The survey shows that land ownership can be got based on (1) hereditary, (2) worker (who works there, but not the owner) and (3) ownership it. This table below shows the data specifically:

Table 6. Land Ownership

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Hereditary	47	78,3	78,3	78,3
Worker	10	16,7	16,7	95,0
Ownership	3	5,0	5,0	100,0
Total	60	100,0	100,0	

Source: taken from field investigation's result 2013

Hereditary (78,3%) contributes much in determining the land ownership and followed by worker (16,7) and through the process of ownership (5%). The aspect of ownership here has also relation to working time of people in that area, the one who gets the ownership will work more than five hours (45 respondents) and followed by the rests.

Table 7. Land Ownership and Working Hours

	Land Ownership			Total
	Hereditiy	Worker	Ownership	Hereditary
Working Hour 3-5 Hours	2	0	0	2
> 5 Hours	45	10	3	58
Total	47	10	3	60

Source: Taken from field investigation's result 2013

In calculating the correlation, it can be discovered that the relation between the land area and working time in forest is quite weak, the correlation coefficient is about -0,188 and not really significant. These weak and non significant relations could be meant the land area of ownership does not influence the respondents' working time. Having no other land or place outside Kerinci Seblat National Park creates those conditions.

Table 8. The Correlation of Working Hour and Land Area in Kerinci Seblat National Park

		Working Hour	Land Area
Working Hour	Pearson Correlation	1	-,188
	Sig. (2-tailed)		,151
	N	60	60
Land Area	Pearson Correlation	-,188	1
	Sig. (2-tailed)	,151	
	N	60	60

3.2.5. Interaction Pattern

Based on the survey, the result of interaction pattern between the societies and Kerinci Seblat National Park is very significant since that area contributes much on the demand of them. Nevertheless, the utilization will impact the preservation of that area, so that is why constructive development is needed to tackle down all the negative effects that might be happened. The things which can be taken by this interaction are:

1. The highest pattern is utilizing plantation and agriculture, so the constructive developments are: (a) comprehension towards the preservation area, (b) planting and utilizing pattern, (c) continues help or incentive which can be well programmed.
2. High dependency towards the area needs to be developed persuasively and gives solution to societies' main problem.
3. Most of land ownership is got through hereditary system and the establishment of Kerinci Seblat National Park will discourage people to leave, because the rules are burdening them.

4. CONCLUSION

1. The utilization of natural resources in Kerinci Seblat National Park includes (1) agriculture/plantation, (2) lumbering timber, (3) animal's hunting and (4) rock's mining.
2. The level of societies' dependence towards the resources is relatively high, shown by 30% respondents rely on them as the source of income.
3. The societies' incomes which come from utilizing the resources in Kerinci Seblat National Park are above Rp 100.000,- per day (43,3%), Rp.10.000 – Rp.20.000 per day (16,7%), Rp.20.000 – Rp.50.000 per day (1,7%) and Rp.50.000 – Rp.100.000 (38,3%)
4. The relation between land ownership area and working hour is not significant. This condition is caused by having no other places or area outside Kerinci National Park that can be utilized by the respondents.

REFERENCES

- A. Myrick Freeman, 1981. The Benefits of Environmental Improvement Theory and Practice. John Hopkins, London
- Bappeda South Sumatera Province Dati 1, 1997. South Sumatera Province, Kerinci Seblat National Park, Palembang
- Forest Department, 1997. Directorate General Decision on Forest Protection and Conservation, Nomor. 143/Kpts/DJ-VI/1997, September 26, 1997. ; about Technical Direction on of Protected Forest Management Dati II (Five Years). Directorate General on Forest Protection and, Jakarta
- Forest Department of South Sumatera, 1998. Protected Area Planning Unit of UPKL dati II Musi Rawas Dati I South Sumatera Province, Palembang
- World Bank Document, 1996/1997. Staff Appraisal Report of Kerinci Seblat National Park, Integrated Conservation and Development Project
- Final Report, Village Development Component in Kerinci SEblat National Park
- Giesen, W. And Sukotjo, 1991. Lake Kerinci and the Wetlands of Kerinci Sebelat National Park Sumatera, AWB, Bogor
- Hamid, Muniful, dkk., 1999. The Development of Kerinci Seblat National Park., Seminar on Kerinci Seblat National Park Management, KEHATI., Palembang
- Leuhery, Daniel., 1989. "Social Forest Construction and Society's Interaction towards The Forest in South Slope of Kaliurang in Mount Merapi"., The Research Periodical Magazine UGM, No. 4.A., Yogyakarta
- Marzuki,A.B.Yass., dkk., 2000. The Utilization of Natural Resources and Environmental Damage in Kerinci Seblat National Park, MURA (A Study on Social, Economy and Culture).Kehati-PPLH Unsri, Palembang
- Randall, Alan., 1981. Resource Economics, Lexington, Kentucky
- WWF., 1996. Pre Implementation of Conservation Project and Development of Integrated Area in Kerinci Seblat National Park.
- 1990 Constitution Number 5 (about the conservation of biodiversity and ecosystem)
- 1999 Constitution Number 41, about Forestation
- 2013 Constitution Number 18 (about encroachment prevention)
- Government Policy on 2004 Constitution Number 1, about the alternation of 1999 Constitution Number