CONFLICT AMONG PARTIES IN MODERNIZATION OF ECOSYSTEMS AT SUBAKS LOCATED IN BULELENG AND TABANAN REGENCIES OF BALI AT IRRIGATED BY SHABA RIVER

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ABSTRACT

Conflict among parties of *subak* ecosystem is a conflict of interests resulting from the modernization made by political community with regard to the subculture of *pelemahan* of ecosystem. The political and economic communities force modernization on the *subak* ecosystem leading to an ideological conflict between modernism and the philosophy of *Trihita Karana*. Modernism has been responsible for the conflict among the parties of ecosystem in *palemahan*, *pawongan* and *parhyangan* of the *subaks* irrigated by Sabha River.

Participation in group discussion, semi structured interview and *transek* were the methods employed in collecting the data. The triangulation including at least three relevant theories was employed for analyzing the data.

Political communities interfere with the development by applying the theory of *hegemony*. The political community in collaboration with the economic community dominates modernization which is sectoral in nature and the planning and implementation of the development. Partial development approach, which contrasts with the theory of ecosystem (Pollunin, 1996), causes the farming community life process and the cultural values existing in the ecosystem of the *subak* to degrade. The interference of the political community in collaboration with the economic community with the *subak* ecosystem is more dominant in the subculture of *palemahan* which is materialistic in nature so that advantages can be obtained by science and technology. Consequently, the philosophical values of *trihita karana* are broken. Such a conflict takes place due to the different interests in the *subak* ecosystem, which is full of cultural values for the farming community. Alteration to the land status, the imbalance between the cost spent and the yields produced and the violation of the growing pattern are responsible for the conflict.

The institution of *subak*, which constitutes the realization of subculture of the *subak* ecosystem, is swept aside by the political and economic communities. The farming community members that are the members of the *subak* institution are made not to be facilitated to take part in the development process in the subculture of *palemahan*. Modernization in the subculture of *palemahan* of the *subak* ecosystem done by the political and economic communities is beyond the *subak* institution causing it to violate the traditional values of the *subak* institution which refer to togetherness regulated by the *subak* rules and regulations. Modernization, which is done by the political and economic societies by science and technology, breaks the unified existence of *Trihita Karana* in the *subak* ecosystem environment. Modernization in the development of the subculture of *palemahan* ecosystem

degrades the spiritual values attached to the subculture of *parahyangan*. The developmental intervention in the subculture of *palemahan* done by the political and economical communities is not begun from the implementation of the subculture of *parahyangan*. This contrasts with the cultural values existing in the *subak* ecosystem. The conflict of *subak* ecosystem among the parties results from the failure of modernization. The developmental intervention is only done in the subculture of *palemahan*, while the subcultures of *pawongan* and *parahyangan* of the *subak* ecosystem are marginalized from their habitats. The failure in developing the infrastructure of the subculture of *palemahan* of the *subak* ecosystem in the areas irrigated by Sabha River results from the fact that the *subaks* are functioned to be the developmental objects. In this case, the theory of participatory can offer solutions to the conflict and the developmental failure, especially in the ecosystem of *subaks* irrigated by Sabha River. The reason is that the parties play equal roles in developing the environment of the *subak* ecosystem.

Key word: sustainable, ecosystem, conflik, stakeholder, participatory and eguallity

INTRODUCTION

The objective of using the conflict of the ecosystem of the subaks irrigated by Sabha River located in Tabanan and Buleleng Regencies among the Farming, Political, and Economical Communities as the title of this dissertation is to reveal the complexity of the ecosystem occurring there. The upper part of the river is located in Tabanan Regency, and the central and lower parts are located in Buleleng Regency. The inexplicitness of the data and information concerning the subaks irrigated by Sabha River has inspired the writer to observe the validity of the data and information documented at the related government's institutions representing the political communities. The number of the *subak* ecosystems spreading along the areas irrigated by Sabha the River available at related government's institutions varies. The writer has been motivated to conduct this study in order to get the validity of the number of subak ecosystems spreading along the areas irrigated by Sabha River.

Intellectually and practically, subak refers to a traditional organization functioning to arrange water irrigation in Bali. This definition has inspired the writer to conduct a deep research concerning subak. The reason is that subak does not only function to arrange irrigation water. The writer is convinced that *subak* is rich in sources of biotic and abiotic. It is this that has inspired the writer to conduct such a study as his dissertation. However, some problems Why do conflicts take place among the political, economic and farming communities in the aspect of palemahan of the ecosystem of the subaks irrigated by Shaba River, How do the conflicts among the parties in the aspect of pawongan of the ecosystem of the *subaks* irrigated by Sabha River take place, What is the implication of the conflicts in the aspects of pawongan and palemahan on the ecosystem of parhyangan in the subaks irrigated by Sabha River.

The general objectives of the study concerning "Conflict among Farming, Political and Economical Communities in the Ecosystem of the *Subaks* Irrigated by Sabha River" are

to find out the dynamics of growth and development taking place at the regions irrigated by a river in Bali, to describe the condition of the elements of the subak ecosystem based on the values and various activities performed along the regions irrigated by Sabha River in Bali and to identify the relationship between institutional elements, water resources, agroeconomics, and irrigation technique and Trihita Karana. The specific objectives of the study are to identify the factors causing the conflicts in the ecosystem of the subaks irrigated by Sabha River: to describe interrelationship among the elements in the ecosystem of the subaks irrigated by Sabha River; and to map out the pattern of relationships between the farming communities and God, among the members of the farming communities, and between the farming communities and their environment.

MATERIAL AND DISCUSSION

This study was conducted employing participatory method that refers to the following principles: a) giving priority to what is neglected, b) community empowerment, c) the local community is the doer and the outsiders are the facilitators, d) equality, learning from each other and appreciating differences, e) optimalizing results, f) practical orientation, g) sustainability and time interval, h) learning from errors, and i) ransparency.

The strength of participatory method is situated on how data are collected and h analyzed. The data analysis was systematically done together with the community with the principle of triangulation, in which the data and information were checked and rechecked. Triangulation was done through diversity in team members, sources of information and variation in

participatory technique and method. The diversity in triangulation intended is as follows: a) the team members were composed of those who are multidisciplinary, male and female, locals and outsiders coming from different disciplines of science, b) the information sources are: the society, location, event or processe. The local community's role is necessary. The roles of location, the analysis of process and event are too, and c) technique and equipment: interview, discussion, and *transek*.

Triangulation or multi-strategy was optically employed using at least five types of triangulation. They are triangulation of data, triangulation of discipline, triangulation of theory, triangulation of methodology and triangulation of analysis.

The parties who have interests in *the subaks* irrigated by Sabha River are the farming, political and economic communities. Historically, the farming communities cannot be separated from the *subak* life. While the political and economic communities are the parties who have interests in the resources.

The sources forming the *subak* ecosystem, which are investigated in the scope of this study, include the concept of Trihita Karana, which constitutes the forming elements, and functions as the ecosystem networks among institutionalization, agroeconomics, water resources, and irrigation technique. Trihita Karana constitutes a boundary frame, and binder binding all the realizations of every activity done by the farming communities around the ecosystem. All the elements forming the subak ecosystem are sorted in the concept of Trihita Karana. The subculture of parhyangan realizes the activities done by the farming communities associated to God. Every activity done around the subak ecosystem starts from the subculture of parhyangan. The subculture pawongan realizes the harmonious relationships between man and his fellow-beings, and among institutions. As a whole, institutionalization, as one of the elements forming the subak ecosystem, is the real implementation of the concept of Trihita Karana. The subculture of palemahan constitutes the relationship pattern between the farmers and their environment around the *subak* ecosystem, which includes the relationship between the farmers and water resources, agro-economics, and irrigation technique, which are always in the corridor of religious cultural values. The intervention of the parties in the *subak* ecosystem causes a clash between local ideology and modernism.

The conflicts over land in the areas irrigated by Sabha River take place downstream, as the utilization of land for irrigation channels that takes place at Gerogak Distrik. The parties involved in such conflicts are the Department of Public Work, Bureau of Land Affairs, the farming, and the economic communities. Department of Public Work has built some irrigation channels to expand the farming areas at Gerogak District. For this interest, the farmers' land has been freed. The process of freeing the land has been done by paying compensation. Some of the landowners, in fact, have freed their land without any compensation for building irrigation channels

Violation of growing pattern is one of the things that have been responsible for the conflict that takes place among the farming community members. The intervention of the political communities in the growing pattern aspect is intended to increase growing intensity by applying technology including the use of shortage superior seeds, high dosage fertilization and the three-time a year

growing frequency. Wibowo (2007: 218) states that the growing pattern applied by the political communities has left every thing traditional and meaningful behind. The reason is that the three-time growing pattern a year has not given any opportunity to the land to reacquire its fertility. In addition, the three-time growing pattern a year has made traditional meaningfulness extinct in the subak ecosystem. This exceeds the post reality and negatively affects the environment. The conflict resulting from the violation of growing pattern has taken place in the subaks where heterogeneous plants are planted. The reason is that every type of plants has a different need. Grape plantations need bigger rates of flow of water. The other second crops do too. In addition, the growing pattern among the subaks located in the upper part, the middle part and the lower part of Sabha River has not been facilitated. This has been responsible for the conflict taking place among the subaks. determination of growing pattern and the arrangement of rice and grape patterns growing should immediately made, as this has created latent conflicts among the farming communities in the subak ecosystem (DISIMP, 2005, Department Agriculture, 2004).

Water is one of the resources which has been the object of struggle among the the parties which have interests in it. The *subak* that is located at the upper part of the river and close to the water resources dominantly control the water. The arrangement of doors that are permanently installed is dominantly done by the subaks, which are located in the upper part. The unavailability of irrigation manage ment among the related subaks, which are bound to awig-awig (local regulations) made and approved

together, causes the conflict to take place among the *subaks*.

Competition taking place among the parties using the irrigation water flowing from one channel clear without anv regulations frequently causes the conflict to happen. It is difficult to solve such a conflict. The reason is that there is no binding that can collectively facilitate the water allocation management. The subak ecosystem in the areas irrigated by Sabha River has not been formally organized by a higher subak (subak gede).

The conflict caused by the struggle for water resources, in fact, takes place between PDAM and the farming communities. In a focused-group meeting attended by the *subaks*, it is shown that an organization in the form of a higher *subak* (*subak gede*) is really needed. It is hoped that the *subak gede*, as an institution, can facilitate the irrigation water management among the *subaks*.

The subculture of pawongan of Trihita Karana in the subak ecosystem is in general binding in nature both inward and outward. What is meant by inward is that it is responsible for the pattern of relationship among the farmers or karma (members) in an institution. All the facilities and infrastructures unifying the farmers in the subak ecosystem are included in the awig-awig (local regulations). Such regulations constitute a frame limiting and binding the farmers' movement. In this way, any violation done by the farmers in a unified ecosystem of subak can be minimized. So can any violation among the subakgede (higher subak) members. What is meant by outward is that the members should also be responsible for the communities existing outside the *subak* ecosystem. The implementation of the subculture of pawongan corresponds to the pattern of relationship between

the farmers and the communities outside the *subak* ecosystem.

The development facilitated by political economic the and communities in the subak ecosystem along the areas irrigated by Sabha River greatly contrasts with the theory of ecosystem. The development in the subculture of parhyangan done by the political communities is not made equal to the development done in the subculture of palemahan. Imbalance facilitation of the development done by the political communities in the *subak* ecosystem has caused the existence of cultural values attached to the sub culture of parhyangan marginalized. In accordance with the theory of conflict (Moor, 1996), the imbalance in development causes various types of clashes which potentially lead to conflicts. The parties have not paid any attention to the existence of holy places belonging to several subaks or to the holy places built for the subaks located in the same irrigation area. They have not paid any attention to the rituals performed for the interests of the *subak* ecosystem in the areas irrigated by Sabha River either, where they have interests. The development that is unequally designed viewed from ecosystem badly affects the functions of the ecosystem network. This means that the function and meaningfulness of the subculture of parhyangan as the network of the subak ecosystem have been made damaged.

RESEARCH NOVELTY

The novelty of this study: First, a conflict of land function which is caused by the use of the farmers' land for irrigation channels, a conflict of growing pattern among the *subaks* and non *subak* institutions, a conflict of water resources among the *subaks* and non *subak* institutions, and a conflict of modernized subculture of irrigation

technique which is caused by partial approach take place in the *palemahan* sub culture of the *subak* ecosystem. This is not in accordance with the farmers' knowledge and philosophically, a clash between modernism and traditionalism cannot be avoided.

- 1. The area of Sabha river are Tukad Sabha, Tukad Bakah, Tukad Jehe, Tukad Getas, Tukad Panes, Tukad Titab, and it has 55 subak.
- 2. Palemahan aspect develop by economic oriented and base by ideology of capitalism, and farmer community group did activities vase by philosophy of Tri Hita Karana,
- 3. Modernization is source of latent conflict of political community with farmer community, and source of conflict economic community with farmer community. And Source of conflict inheren of subak and among subak,
- 4. Pawongan aspect of subak-subak at area of Sabha river like is human resourches not touch by develop
- 5. ment of political community and economic community,
- 6. Participatory theory as once alter
- 7. native for used solving problem of conflict among stakeholder in modernization ecosystem subak by Sabha river area.

RESEARCH CONCLUSION

Modernization in the agricultural mechanism has marginalized the existence of the traditional agricultural equipment in the *subak* ecosystem. In addition, the economic communities more dominantly play a role in the modernized mechanism of agriculture, in which the farmers are treated as consumers. The collaboration of the political and economic communities has marginalized the farming

communities in the development of irrigation infrastructure of the sub culture of palemahan. This is called collusion that is based on buraucratism and technocratism which synergy with capitalism referred to by the economic communities with the objective that great benefit will be gained. The modernization in irrigation infra structure of the sub culture of palemahan has swept the farming communities away from their environment, and has changed the forms of the local symbols created by the farmers. The consequence is that the transcendent values of the artefak realizations of the sub culture of palemahan at the subaks irrigated by Sabha River have been made to disappear.

The sub culture of pawongan at the subaks irrigated by Sabha River bound to the awig-awig (local regulations) has collided with formal regulations, the governmental regu lations and the regional regulations. The awig-awig is local in naure, while the formal regulations are national in nature. Interinstitutional conflict has been caused by the non-existence of a higher subak (subak gede) at the same irrigation area and the non-existence of an institution arranging the area of a river (subak agung). The sub culture of Parhyangan has been marginalized in the subak ecosystem, because the modernization made by the political communities have only been done in the subculture of palemahan. The sub culture of parhyangan has not been touched by modernization, making modernized infrastructure of the sub culture of palemahan considered not to religious values. Because spirituality has been neglected by the economic and political communities, the subculture of paryhyangan has been marginalized. The philosophy of Trihita Karana has been destructed by modernization, resulting a conflict

among the parties at the subcultures of palemahan, pawongan, and parhya ngan.

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BIBLIOGRAPHY

- Best, Steven dkk. 2003. *Teori Posmodern: Interogasi Kritis*.

 Malang: Boyan Publishing.
- Budiman, Arief. 1996. *Teori*Pembangunan Dunia Ketiga.

 Jakarta: PT Gramedia.
- Budimanto, Arif, dkk. 2004. Corporate
 Social Responsibility:
 Jawaban bagi Model
 Pembangunan Indonesia
 Masa Kini. Jakarta: Indonesia
 Centre for Sustainable
 Development (ICSD).
- Budiman, Hikmat. 2002. *Lubang Hitam Kebudayaan*.
 Yogyakarta: Kanisius.
- Brouwer, M.A.W. 1986. *Studi Budaya Dasar*. Bandung: PT Alumni.
- Brouwer, M.A.W. 1988. *Alam Manusia dalam Fenomenologi*.
 Jakarta: PT Gramedia.

- Brown, Lester R. Christopher Flavin, Sandra Postel. 1991. Saving The Planet: How To Shape an Environmentally Sustainable Global Economy. New York: W.W. Norton & Company.
- Brown, Lester R. 1993. *Jangan Biarkan Bumi Merana*. Jakarta:
 Yayasan Obor Indonesia.
- Bryant, Coraile dan Lousie G, White. 1982. *Manajemen Pembangunan untuk Negara Berkembang*. Jakarta: LP3ES.
- Bocock, Robert, 2004. *Pengantar Komprehensif untuk Memahami Hegemoni*.
 Yogyakarta: Percetakan Jalasutra.
- Bouman, P.J. 1980. *Ilmu Masyarakat Umum*. Jakarta: PT Pembangunan.
- Budiman, Hikmat. 2005. *Hak Minoritas: Dilema Multikulturalisme di Indoensia*.
 Jakarta: Yayasan Interseksi.
- Capra, Fritjof. 2000. The Tao of Physics: Menyingkap Kesejajaran Fisika Modern dan Mistisisme Timur. Yogyakarta: Jalasutra.
- Capra, Fritjof. 1998. Titik Balik
 Peradaban: Sain, Masyarakat
 dan Kebangkitan Kebudayaan.
 Yogyakarta: Yayasan Bentang
 Budaya.
- Capra, Fritjof. 2001. Jaring-Jaring
 Kehidupan: Visi Baru
 Epistemologi dan Kehidupan.
 Yogyakarta: Pajar Pustaka
 Baru, Yogyakarta.
- Chang, William. 2001. *Moral Lingkungan Hidup*.
 Yogyakarta: PT Kanisius.
- Chilcote, Ronald H., 2003. *Teori*Perbandingan Politik

 Penelusuran Paradigma.

 Jakarta: PT. RajaGrafindo

 Persada.
- Chapman, Audrey R; Rodney L.
 Petersen; Barbara Smith-Moran.

- 2007. Bumi yang Terdesak Perspektif Ilmu dan Agama Mengenai Konsumsi, Populasi, dan Keberlanjutan. Bandung: PT Mizan Pustaka.
- Cleveland, Harland. 1995. *Lahirnya Sebuah Dunia Baru*. Jakarta:
 Yayasan Obor Indonesia.
- Coward, Jr. E. Walter. 1980. Irrigation and Agricultural Development in Asia. Ithaca and London:
 Cornell University Press.
- Darmaedi, Dedy. 1999. An
 Alphabetical List of Plant
 Species Cultivated in the Bali
 Botanic Garden. Jakarta:
 Indonesian Institute of Science
 Indonesia.
- Darmawan. 2004. Lembaga Swadaya Masyarakat: Menyuarakan Nurani Menggapai Kesetaraan. Jakarta: PT Kompas Media Nusantara.
- Darsoprajitno, H. Soewarno. 2002.

 Ekologi Pariwisata "Tata
 Laksana Pengelolaan Objek
 dan Daya Tarik Wisata.
 Bandung: Angkasa.
- Dasman, Raymond F dkk. 1980.

 Prinsip Ekologi untuk

 Pembangunan Ekonomi.

 Jakarta: PT Gramedia.
- DHV. Consulting Engineer, et all. 1986. Bali Water Research Study for human resettlement. Denpasar: IUIDP.
- Dietz, Ton. 1996. *Pengakuan Hak Atas Sumber daya Alam.*Yogyakarta: Pustaka Pelajar Offset.
- Dikbud Provinsi Bali. 1999. *Buku*Petunjuk Prajuru Subak dan

 Sri Purana Tatwa. Denpasar:

 Dinas Kebudayaan Provinsi
 Bali.
- Dillon, H.S. 1999. *Pertanian Membangun Bangsa*. Jakarta:
 Pustaka Sinar Harapan.
- Djamal Irwan, Zoer'aini. 1997. Prinsip-Prinsip Ekologi dan

- Organisasi Ekosistem, Komunitas, Dan Lingkungan. Jakarta: Bumi Aksara.
- Durno, Janet, dkk. 1992. Sustainable Agriculture for the Lowland. Bandung: Seasan.\
- Eghenter, Cristina dan Bernard Sellato. 1999. *Kebudayaan dan* Pelestarian Alam: Penelitian Interdisipliner di Pedalaman Kalimantan. Jakarta: WWF-Indonesia.
- Fakih, Mansour. 2002. *Runtuhnya Teori Pembangunan dan Globalisasi*. Yogyakarta: Insist
 Press.
- Featherstone, Mike. 2000.

 Posmodernisme dan Budaya

 Konsumen. Yogyakarta:

 Pustaka Pelajar.
- Fischer, H. 1980. *Pengantar*Anthropologi Kebudayaan

 Indonesia. Surabaya: PT

 Pembangunan.
- Fukuyama, Francis, 2005. Guncangan Besar: Kodrat Manusia dan Tata Sosial Baru. Jakarta: PT Gramedia.
- Fox, Warwick. 1990. *Toward a Transpersonal Ecology*. Boston & London: Shambhala.
- Gabriel, J.F. 2001. *Fisika Lingkungan*. Jakarta: Hipokrates.
- Galtung, Johan. 2003. Studi
 Perdamaian: Perdamaian dan
 Konflik Pembangunan dan
 Peradaban. Surabaya: Pustaka
 Eureka.
- Giddens, Anthony. 2003. The

 Constitution of Society: Teori
 Strukturasi untuk Analisis
 Sosial. Pasuruan: Penerbit
 Pedati.
- Huntington, Samuel P. 2000. Benturan Antarperadaban: Dan Masa Depan Politik Dunia. Yoyakarta: Qalam.
- IIED. 2003. *PLA Notes: Participatory Learning and Action*. London:

- International Institute for Environment and Development.
- JBIC. 2003. Decentralized Irrigation System Improvement Project in Eastern Region of Indonesia. Jakarta: KIMPRASWIL.
- Josef Eiler, Franz. 1993.

 Berkomunikasi Antara Budaya.
 Flores-NTT: PT Nusa Indah.
- J. Van Baal, dkk. 1969, *Bali Further*Studies in Life, Thought, and
 Ritual. The Hague: W. van
 Hoeve Publishers Ltd.
- Kayane I. 1989. Water Cycle and Water Use in Bali Island. Japan: Institute of Geoscience, University of Tsukuba Ibaraki.
- Kirkpatrick S, 1996. Revolusi Hijau. Sebuah Tinjauan Historis-Kritis Lingkungan Hidup di

- Amerika. Editor Koesnadi Hardjosoemantri. Penerjemah Matheos Nalle. Terjemahan dari The Green Revolution, The American Environmental Movement.
- Koentjaraningrat. 1997. *Kebudayaan, Mentalitas, dan Pembangunan.*Jakarta: PT Gramedia Pustaka
 Utama.
- Korten, Frances F dan Siy Jr. Robert Y. 1988. Transforming a Bureaucracy: The Experience of The Philippine National Irrigation Administration. Manila: Ateneo De University Press.