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Local Wisdom in Urban Protected Areas:
Case of Collective Consciousness in Caring for Mangrove Forest
in Denpasar Metropolitan Area, Bali Province, Indonesia

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Abstract: Conservation of urban protected areas poses a significant challenge to local government, particularly in rapidly growing communities. Although urban protected areas has significant function to support sustainable city, there is nearly no existence of protected areas in most urban communities. However, there is an exception for Denpasar Metropolitan Area, which has well succeeded in maintaining urban protected areas. There is mangrove forest as urban protected areas and it is found that the well-known Balinese local wisdom - *Tri Hita Karana* - is inherent in the conservation efforts in maintaining its existence. The values of *Tri Hita Karana* lead to collective conscious phenomenon to care for the forest. Using phenomenological approach, a survey method is utilized to study this phenomenon. The study demonstrates that the universality of *Tri Hita Karana* values has been comprehended by the community resulted in the embracement of common values in caring for the Mangrove Forest.

Key Words: local wisdom, collective consciousness, urban protected areas.

1. INTRODUCTION

There is increasing attention on the relation between urban development and environment preservation. Most conferences had enforced the nature conservation efforts in cities and the importance of advancement of sustainable development of human settlements had been confirmed, with focus on the improvement of ecological, economical, cultural and social conditions. Conservation of urban protected areas poses a significant challenge to local government, particularly in rapidly growing communities.

The conservation development in this urban environment is hardly supported as evidenced by the fact that there is very little number of urban protected areas left. There is nearly no existence of urban protected areas in most urban community. It is found that there are some factors that need to be addressed for successful conservation to occur in answering the challenges of nurturing the existence of urban protected areas. Addition to plan implementation and collaborative management, it is found that spiritual dimension is inherent in the conservation effort that makes protected areas in the urban environment to exist (Hindersah, 2007).

In line with the increasing urban development, Denpasar had well succeeded in maintaining urban protected areas which function to preserve the urban ecosystem. There is mangrove forest which lay around Benoa Gulf function as urban protected areas. This forest has a status as Great Forest Park named Tahura Ngurah Rai. Supported by Ngurah Rai International Airport, Denpasar City has been developing into establishment of metropolitan area, which covers the administrative area of Denpasar City and Badung Regency, Bali Province. Although the area is dominated by Hindu-Bali culture, Metropolitan Denpasar is nearly equal to

Cosmopolis category (Sandercock, 2003) because of its diverse populations. However, it is found that the well-known Balinese local wisdom - *Tri Hita Karana* - is inherent in the conservation efforts in maintaining its existence.

Local Wisdom is strongly recognized as source values. The values of *Tri Hita Karana* lead to collective conscious phenomenon to care for the forest. There is collective community action to conserve the forest. Using phenomenological approach, a survey method is utilized to study this phenomenon. This study is based primarily on survey method, which consists of literature survey, on-site visual observation, analysis of written reports and documents, and short interviews with staff of TAHURA Ngurah Rai as well as deep interview with several participants.

2. SUSTAINABLE DEVELOPMENT: CONSCIOUSNESS IN CARING FOR URBAN PROTECTED AREA

It is a real struggle for urban planners to balance the two agendas - development vs. preservation, which are competing with each other. Furthermore, the implication to practical policy on the relationship between urban development and environment preservation is related to operationalization of sustainable development concepts into the real programs (Hindersah, 2007). Sustainable development can not be achieved without conservation, and conservation will not be succeeded without sustainable development. United Nation Development Programme (UNDP) has promoted the idea of "sustainable human development", a development centered on community's options based on their capabilities that will generate an evenly distributed economic growth, improve the environment and not destruct it, and also empower men and women equally. Local community empowerment and participation (Barrow, 1999) is a major dimension of sustainable human development. A development paradigm in the 21st century will have a dimension of "multiple sustainability". When applied in urban development, "sustainability" has a number of primary dimensions. Thus to be called sustainable, a city shall be judged by those dimensions (Hall and Pfeiffer, 2000).

Some efforts to see the dimensions of "sustainability" could be done by evaluating the product of city development plan. According to Berke and Conroy (2000) dimensions of "sustainable development" should be disclosed explicitly. Evaluation towards the substance of city plan need to use the standards of harmony with nature, built environment comfort, harmony between economic activities with local environment, justice, pollution charge, and also responsible regional insight. The first four standards mentioned were associated with "reproduction" characteristic because of showing the community's ability for a long term to support healthy economic, social and ecological systems. The two latter standards reflected the characteristics of "local relationships with global interests", where individuals or communities actions were related to a broader obligations toward another party.

One identified point among principles of sustainable urban development is related to the aspect of participation. The involvement of citizens and all stakeholders is prerequisite of a sustainable urban development. The old paradigm of government as a supplier or provider shall be shifted with the new paradigm of government as a facilitator or empowerment enabler (Budihardjo, 2003). Because the model of urban conservation area management using participatory approach would require a series of strategic implementation plan through determination of key stakeholders, establishment of an appropriate participation process influenced by socio-economic condition of related urban society.

Many reasons could be given to include the society in environmental management. In a wider sense, Ryding (1992) revealed that interactive communication happened with public could have at least two beneficial effects. The first one is that the knowledge gained through observation of a natural area could be documented for use in the development of next management programs. The second one is that people encouraged to participate in a program development were more likely to support the management programs. While Barrow (1999) said that public involvement in environmental management will make more careful and responsible planning and management. Public participation or public involvement in environmental management could mean providing information from the least to the sufficient level, actively providing inputs for the management both before and during the development process, or being involved after decision-making of the management.

Obviously, the existence of urban preservation area should be realized because the area has important functions to create a habitable and sustainable city. To some ecologists, urban preservation area, which has the same meaning as the concept of urban nature conservation, seems like an oxymoron (Cilliers et.al, 2004). For research purpose, urban nature is defined to include all living organisms and their habitats within the administrative boundary of the city. Furthermore, urban nature could be located in fragmented natural areas, such as hills and ridges, and linear landscapes, such as rivers and streams, including its extensive wetlands. The concept of urban nature conservation area could be described when a city is seen as an ecosystem. Here, city as an ecosystem could be considered as a conservation area by means of area or city's landscape which must be maintained so that all of the nature process would not be disturbed.

The World Charter Principles for nature and the World Conservation Strategy, a working group of International Union for Conservation of Nature and Natural Resources (IUCN) for ethics and conservation, have delivered a foundation of conservation ethics for ethics and conservation matters (McNeely et.al, 1990). It is concluded that a foundation of ethic for conservation has to be consistent with ecological principles and the ethic itself is important to promote sustainable activities for a long term. Society need to know that a reason behind the existence of one species might be more subtle and more unintelligible instead of only to support economic needs of consumer generation nowadays. If a group of plasma were being pushed into extinction by todays generation to maximize its benefit for themselves, then the next generation will pay the cost.

An important basic conservation ethic is that all species have their right to exist. Ecological processes those support an integrity of biosphere and species diversity, landscape and its habitat, must be maintained. Thus a full range of cultural adaptation on local nature must be made possible for prosperity as well. Welfare of the next generation is a social responsibility of today's generation. However, conservation ethic turns into something difficult to apply because of dealing with human freedom and nature of human economic which is tend to be rational. When humans act as homo economicus, with consumption habit that is never be satisfied and their individualism (Daly and Cobb, 1989), then nature as a commodity will be exploited to achieve such prosperity. For this problem, there are two views regarding the relationship between man and nature those seem contradictory yet needed a further discussion to explain the existence of urban protected area as a form of conservation. The two views are anthropocentrism and ecocentrism, each as a thesis and its anti-thesis.

Anthropocentrism label is attached to modern philosophy which is started from Descartes' dualism and also Immanuel Kant's idealism of thinking (Daly and Cobb, 1989). It is an

ideology that states separateness, uniqueness, eminence, excellence and superiority of human species. This concept legitimates human welfare as a primary purpose of social institutions (Shrivastava, 1995). The highest values are human beings and their interests. Nature is seen as an object, a tool and a means for the fulfillment of human needs and interests. Nature does not have values on itself (A. Sonny, 2002), but it has instrumental values (Pearce and Turner, 1990) for humans. Human beings have the right to exploit nature without any concern to preserve its existence. Nature preservation is only meant as a condition to satisfy the interests of mankind itself. Therefore, nature shall be protected and conserved so that people could maximize its use, both at present time and also for the future (Shrivastava, 1995). In anthropocentrism idea, urban conservation areas will be able to exist as long as the area has a role and function that support the interest of urban society.

Started from beautiful description about the beauty and majesty of nature and then continued with destructing human intervention towards nature which brought on one pretext for an earth ethic, Aldo Leopold essay (1949) in his classical "A Sand County Almanac" has offered a new awareness to respect the earth and a bold challenge to protect the world. Following Aldo Leopold, since 1970s green or environment ideologies are started to emerge, known as various environmentalism movements such as deep ecology movement, communalist (Pearce and Turner, 1990; Pepper, 1996), bringing out views of biocentrism and ecocentrism. Both idealisms acknowledge the existence of intrinsic values in nature (Pearce and Turner, 1990). Biocentrism considers all living creatures to be valuable in themselves thus worth the moral consideration and concern. Nature needs to be done morally, regardless of whether it is valuable to human beings or not (A. Sonny, 2002). Unlike biocentrism which only focuses to the whole matters of life, ecocentrism instead focuses the ethics on the entire ecological community, both the living ones and thus the opposites. In this ecocentrism concept, urban conservation areas will exist without needing any pretext.

3. PHENOMENOLOGY OF COLLECTIVE CONSCIOUSNESS

Phenomenological research paradigm (Merriam, 2002) is an interpretive research methodology that demonstrates a deep understanding about behavior and significance of everyday experience. Since phenomenology is being situated in the life world, this methodology can help to gain an understanding of human life complexities and their experiences completeness (Gibson and Hanes, 2003). By using this method, this research answers the question of how collective consciousness phenomenon in caring for mangrove forest could be explained. Here is subjective experience, that its truth is being stood on the individual interior region, will be explored. The only way to know the interior truth is by asking, through talks and dialogue (Wilber, 2007). The validity of individual subjective experience lies within the individual's own honesty, whether this individual could be trusted or not.

Since the phenomenon to be observed is associated with a place, in this case is an urban conservation area as a part of the phenomenon itself, thus the method used is a combination of case study method and experienced narrative method (Thomas, 2003). The case study method provides an intact descriptive analysis and has a potential to offer a framework of interconnected actors, contextual settings and events stages (Watson, 2002). While for the disclosure of meaning, the experienced narrative method has a power to tell an event experienced by a person because of his direct involvement as a participant or as an observer. In fact, the case selected to become a case study of this exploration is a case on management practice of urban conservation area in Benoa Bay Mangrove Forest. The management practice

of this conservation area is done voluntary through collective participation acts of the stakeholders in a form of mangrove planting activity, which has been recorded since the year 2002 until now. Mangrove planting action itself is a symbol on manifestation of the capacity to be compassionate and to care. This phenomenon could describe an increasing phase, according Wilber (2007) from *Ethnocentric* to *Worldcentric*.

Exploration on the phenomena of participative management in an urban protected area, the only one founded in Benoa Gulf – Denpasar City and Badung District of Bali Province, demonstrated a collaborative participatory action based on collective consensus. Within the contextual area, the phenomenon of participant life and nature relationship in a spiritual unity was found. This explained how consensus is built on a philosophical foundation deeply believed and acted upon all socio-cultural aspects of life and is supported by strongly rooted social infrastructure. Moreover, exploration on the meaning of the phenomenon has revealed five motives as the basis of stakeholders' participatory actions, namely obligation and responsibility, awareness, unity with nature, solidarity, and the benefit of the forest itself. However, the ultimate motive found to be the most important is that *Tri Hita Karana* philosophy has inspired every development effort in the study area, and that the universality of its values has been acknowledged in every community's activities. Comprehension of common values in managing the environment has brought about sharing of understanding, sharing of knowledge, and sharing of feeling that developed into trust. This is in Habermas term was part of the validity claim for his Communicative Action Theory.

Another finding explicitly revealed the meaning of experiences in Suryani's Hierarchy of Needs (Suryani and Wrycza, 2003). The meaning of experience by groups of stakeholders can be categorized into layers of emotional awareness, mental awareness, matters of self awareness, and spiritual awareness. There are also three categories of meaning of the existence of protected area. The categories represent the existence of human, nature, as well as religious spirituality that is higher position than human and nature. These three positions implicitly described how the philosophy of *Tri Hita Karana* is deeply comprehended and implemented by the majority of stakeholders.

4. LOCAL WISDOM: THE EMBRACEMENT OF COMMON VALUES

Wisdom by definition is willingness to see, understand and feel about something beyond us then become philosophy or values to live. There is spiritual aspect on Balinese life philosophy. The Balinese have a development concept based on the philosophy of *Tri Hita Karana*. This philosophy is rooted in Bali cultural which is inspired by Hindu Religion. The meaning of *Tri Hita Karana* is "three cause prosperity" - *Tri* (three), *Hita* (prosperity), *Karana* (cause). Those three are *parahyangan* (spiritual environment), *pawongan* (environment), *palemahan* (natural environment) that make an inseparable unity (Pujaastawa, 2005). The philosophy has core values system that lied on the balance relationship between human and God, among human, and between human and its surroundings nature. This philosophy can be appointed as an ethical foundation for human moral responsibility to maintain or protect the nature. Thus, the concept of *Tri Hita Karana* basically contains an understanding about the pattern of human adaptation to its environment which include spiritual, social and natural environment.

In order to adapt, human have a set of knowledge model which is used selectively for interpreting or responding to those three environments. The concept of *Tri Hita Karana* constitutes a kind of knowledge that educate human to always care for harmonious

relationship and adapt to the environment in various time and place dimension. Balinese people treat Bali as a macro cosmos, which is believed to have uniqueness from the cultural and religious perspective. Bali spatial plan is a *Tri Hita Karana* spatial plan, where the nature, human, and its ritual infrastructure form a unity. It cannot be denied that the application of this philosophy in the Balinese society a very important factor in conservation of urban protected areas. This local wisdom could lead into collective consciousness which result in sustainable urban protected area.

The relations between the nature and the local socio-cultural state and the case of management of protected areas are revealed and interpreted in the frame spiritual identity. Bali people live in the traditional village structure, which is autonomous and has brought focus on traditional values and religion based on *Tri Hita Karana*. The traditional village also has the role in preservation of the environment. People still run their traditional knowledge, such as agriculture Subak system implementation, which is now recognized as world cultural heritage as well as fishing communities residing in the case is still running a religious procession when going to sea (Kusuma, 2005). With application of the principle of "*Tat Twam Asi*" (Thou art That) in human relationship, traditional village also has trained people to act collectively on the basis of family spirit and develop compassion and a sense of togetherness. This study obviously shows that religious values has strongly influenced societal life. The religious values has penetrated into the public sphere without any resistance, including in Denpasar Metropolitan Area. According to Wilber (2000), this compassion indicates a kind of ascending and descending spirituality. In fact, the society lives in spiritual consciousness and *Tri Hita Karana* is embracing common values.

5. CONCLUSION: LOCAL WISDOM FOR SUSTAINABLE HUMAN DEVELOPMENT

Development and conservation are two opposite issues (Aronson 2000 in Allart 2001). Now, however, as stated by World Conservation Strategy, sustainable development could not be reached without conservation, and conservation would be a failure without sustainable development. The essence of these two forms of development is that conservation and environment preservation aims at the next generations. Consequently, conservation areas that should be realized in the context of sustainable urban development become a matter that can be reached.

In addition, community participation in nature conservation or preservation as well as pro-environmental movements on urban and regional scale has often been undertaken, especially in Western Europe countries (Hamin 2002). Since positive partnership between local citizen and conservation area authority forms an important model for protected area conservation, local citizen involvement in the conservation area will be a significant requirement for this successful conservation management (Hamin 2002). In other word, we need to enable all stakeholders to fulfill their role in managing conservation area in urban area. There will be a need for participative management on urban conservation area based on ethical moral of caring the earth as an amazing place which provide foods and maintain human life.

It is dare for planner nowadays to create a city that is habitable, harmonious with its natural environment, and that can grow sustainable in balancing growth and preservation of the environment. The important principle that must be held by planner is that natural systems, either original or developed, each have its carrying capacity to support and serve human settlement. Therefore, it is important that urban ecosystem need to be understood, that will

bring consciousness that the existence of a city is basically a natural system based on an organic theory (Melosi 2003), and even a living system (Senge et.al 2005), which if it is not managed properly will be lost. For the Balinese, this consciousness has already existed since they have shared values from the philosophy of *Tri Hita Karana* – the well-known Balinese local wisdom. Although this wisdom is rooted in Hinduism-inspired Balinese culture, it has further contributed to formation of the city's inhabitant awareness of their natural surrounding.

Tri Hita Karana is one of several values that exist in world. There must be other values around the world that can be either the same or different. One of the characteristic of human life as cultural human is the capacity to create and understand values. Values could be mean as a concept that is believed to be important and valuable as a guide or pattern of behavior for human life. This is what wisdom for. Moreover every society has a culture and every culture has a set of shared values so that our world exists in a diverse values. City that holds reputation as being a cosmopolis like Denpasar should accept values diversity of its population. The future city will be diverse in cultural, ethical, religious, and economic status. Planner should seek the "common ground" of the people for doing planning. I argue that spiritual dimension inherent in people is the common ground that should be seen as determinant factor. Spiritual dimension has been recognized as being central to personal maturation (Senge et.all 2005) so that it is required for achieving sustainable human development.

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