

CLIMATE INJUSTICE AND LOCAL VALUES:

The practice of traditional community in Bali¹

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ABSTRACT

In the issue of climate change, the climate justice aspects laid down in international and national regulations are interesting topics that have been widely studied nowadays. In the international context, the dichotomy of developed and developing countries often becomes the basis for determining the principles of climate justice. Ironically, while many developing countries fight for their rights to obtain better climate conditions through the mechanism of regulation and negotiation process, some people in developing countries precisely become free riders for climate quota in their own countries. In some regions in Indonesia we can find activities of traditional community which reflect the local values containing implications of emission reduction. As an example, it can be seen in the existence of traditional community in Bali. This paper hence attempts to elaborate the local values in the activities of Balinese people, mainly in concerning to their belief and tradition in protecting the environment. The principle of Tri Hita Karana which underlines the balance relation between human and his environment is explored to seek the philosophical basis of the daily live of Balinese people. The traditional practice of forest protection and the celebration of annual ceremony of Nyepi Day (silent day) are examples highlighted in this paper. Finally, this paper contents that those traditional practices have effect on the national emission reduction. It also concludes that the local values can certainly become supporter to achieve the ideal concept of climate justice.

1. Introduction

One of the living environment issues that contribute a significant influence to all living systems among of the people these days is about the climate change phenomena. Climate change is a form of environmental damages that influences the most every life aspects and threatens the existence of human life at local, national and global levels.

This research is especially aimed at examining the concept of climate injustice which addresses into the weaknesses of the existing international and national regulations in tackling the issue of climate change. A part of it, the facts about the emission injustice will be used as basic of this research to

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provide the measurement of ideas that have climate justice perspectives. Some researchers have tried to discuss about climate change context in various angles. Brown Edit Weiss is one of the famous persons who discuss the climate justice. The derivation of climate justice, inter generation and intra generation, becomes a specific measurement tools in Weiss perspective.

This perspective is mainly used to assess the situation of climate injustice in Indonesia. The gap of emissions resulted by human activities inside the national territory of Indonesia is a phenomena which describes that there are some areas which persistently become big polluters while some others are oppositely. The local values and the traditional practices of Balinese people mainly with regard to their concern on the environment are chosen as research objects because those indicate the great impact on the climate. Subsequently, the principle of *tri hita karana*, the concept of *wana kertih* on the forest protection, and the practice of Nyepi day will be elaborated to illustrate that Balinese people have contribution in reducing the greenhouse emissions.

2. Climate Justice in International Arena

There are several existing international regulations which cover the matter of climate change. In those regulations, many provisions determine the limit for emission allocation from every country based on a certain percentage number. This matter, hence, of course interfere the feeling of justice from many countries with high numbers of population. Based on this matter, many experts recommend that the determination of emission values considering population in it. Some researches about climate change use many methods which are usually used to describe the calculation method for resulting emissions level, either in overall or for every country.

Referring to various researches that carried out by some institutions, it shows that there are the top five persistent contributors of greenhouse gasses emissions i.a .People's Republic of China (PRC), the United States of America (USA), India, European Union (EU), and Japan. Even if the emissions

produced by PRC and USA are combined those emissions reach more than half of carbon dioxide emission in the world.⁴

Above descriptions become rational at the time of the developing countries having an interest to the emissions rights concepts that have been supported. This matter of course will not limit their flexibility to increase their economic competitiveness by establishing industrial activities centers which certainly tend to become the new contributors to increase greenhouses gasses emissions. In these conditions the developing countries try to preach the concept that their countries have the same rights to develop their economic potency.

Developing countries has an excuse that their countries have the justification cause in their actions give big contribution in increasing greenhouse gasses concentration. In their capacity as countries that develop their economic capability, increasing the energy based industrial absolutely become poverty reduction steps which compatible to their population numbers. This argument is hard to be disproved by developed countries, because all actions taken by developing countries are just following the pattern that has been done by the developed countries.

Another issue raised by the developing countries like PRC and India is the mechanism for emission calculation that based on a country capita. Based on the concept of emission per capita calculation with consideration on the population number as a divisor to the emission that produced, suddenly China and India become the low level country which contributing emission, according to in this version. Theoretically, the development for the emission per capita concept indeed cannot discharge from the common but differentiated responsibilities principle as laid down in Rio Declaration and other international legal instruments.

Philippe Sands, a famous international environmental law researcher mentions that there are two important elements that containing in the 'common but differentiated responsibilities principle. First, this principle contains comprehension that the environmental problem is an international problem that

⁴ Intergovernmental Panel on Climate Change., 2003.

absolutely needs cooperation. This element implicitly means that there are interconnections between one country to another in handling the environmental and economy issue, so the most effective way is to handling the problem together.

Second element, in Sands preposition, has at least 3 interpretations that can be retrieved. First is the assumption that every country has different contribution and ability in every form of international environmental problems. Therefore, this matter become the basic for the discussion in seeing that every country has different level in emission contribution history and those cases highly suitable to become a consideration in international environmental law obligation frameworks. Second interpretations that can be performed in every country that has a different capacity for responding international environmental problem like climate change. Developed countries with financial and technology excellences that they have, clearly were in the more responsible position to perform any attempts in fixing the environmental condition on current time.

Lastly, is an interpretation based on the different needs from every countries. Developing countries surely have different needs from the aspects of economic and technology if compared to developed countries that economically more established. This matter then becomes the basic thoughts that there are different interest and orientation for every single country.

3. Climate Justice in Our Homeland

Unfortunately, an imbalance situation is also happened at the national level. Laying on the calculation of greenhouse gasses emission data from energy sector that was released by the Indonesian Ministry of Environment in the year of 2009, shows that Java Island dominates the national energy consumptions. The Industrial survey data result that was published by *Badan Pusat Statistik* (BPS) shows that in the year of 2003-2005, there's around 20.000 industries in Indonesia that using diesel fuel, kerosene and coal. The use of those fuels causing CO₂ emission in Java Island lies in highest ranked, followed by Sulawesi, Kalimantan (Borneo), Maluku–Papua and Bali–Nusa Tenggara. In Java Island, CO₂ emission

from the industries that using all those three kinds of fuel keep increasing from around 13 million tons in the year 2003 to 24 million tons ton in the year 2005.

Not only based on the energy consumptions, lays on to the emission data from the transportation sectors also indicate the similar trends. CO₂ emission forecast from the motor vehicles, in the year 2007 released that DKI Jakarta Province (capital city) was contributing as the highest emission because it released 16 million tons of CO₂. Other provinces that have emission forecast more than 5 million tons are Central Java and East Java. While the province with the lowest CO₂ emission forecast is North Maluku, as was estimated around 20.000 tons.

However, this becomes irony if we look at the researches from Institute for Essential Services Reform (IESR) as one of the institution that introduces the concept of carbon calculation. From the research result that using carbon calculation to count the carbon footprints, revealed that the region that dominated to access the site to doing carbon calculation is done by the region that have maximum contribution on the national emission. From the IESR research revealed that the dominant area where doing carbon calculation were Jakarta, West Java, Central Java, Banten, Sumatera, East Java, Yogyakarta and other regions. Paradox like this, are becoming shocking phenomena in the attempts to mitigate the climate change at the national level.

The condition made the emission per capita concept in a country that firstly assumed to have perspective of climate justice enough being questionable. The quota emission system in fact many free rider used it, whom they have many facilities and ability to accessing prosperity sources. Seeing at the imperfection that the national emission quota had, encouraging the researcher to use a personal emission concept. The growing of the free riders in national context at least has hurts the justice feeling at the national level. That is why, we need a reconstruction to the emission calculation comprehensively with fully consider the elements of justice inside.

The issue of advocating the climate injustice in Indonesia may be considered unrealistic. From the legal point of view, there is neither trade emission mechanism between different provinces or regencies nor

any legal basis for dispute mechanism in the context of intra-national trade emission.⁵ However, the free rider of emission is a fact that cannot be hidden. The different consciousness of the Indonesian people to protect the forest as a natural tool to reduce emission in the atmosphere perhaps can be used as an indicator. It cannot be denied that the massive deforestation in many areas of the Indonesian territory has had serious impact to the climate change. As a mega-biodiversity country, Indonesia is facing a serious ecological problem of the deforestation and the degradation of forest ecosystems, primarily caused by logging to secure timber, forest conversion for other utilities, or the development of physical infrastructure.⁶ Therefore, the human activities are always blamed.⁷

4. Local Value as Trigger for Climate Justice

It is necessary to deliberate that the wide acceptance of climate change as a common concern of mankind at the international level⁸ should be also approached at the regional, national, and local levels. In this regards, the daily live of traditional community in Bali seems can be used as a good example of how the local values have contribution to maintain the good condition of the climate has impact on the reduction of emission at national level.

As an introduction, it can be explained that Balinese people highly respects the philosophy of *Tri Hita Karana* as local value which must be implemented in a good manner. Literally, it is formed by three single words; *tri* means three, *hita* which covers the meanings of good thing, happiness, sustain, safety,

⁵ See for instance the environmental cases in Indonesia which disputable in David Nicholson, *Environmental Dispute Resolution in Indonesia*, KITLV Press and ISEAS Publishing, Singapore, 2010.

⁶ See Hariadi Kartidihardjo and Hira Jhamtani (Eds), *Environmental Politics and Power in Indonesia* (translated by Mark Havard), Equinox Publishing, Singapore, 2009, p. 94-95.

⁷ In this regard, Charles L. Redman argues that deforestation is caused not only by human action but also by “natural” forces such as climatic change or natural fires, although at the same time, a lot of evidences indicates that in countless cases human activities have seriously exacerbated deforestation. See Charles L. Redman, *Effects of Agriculture and Urban Society*, in Charles L. Redman, Steven R. James, Paul R. Fish, and J. Daniel Rogers, *The Archaeology of Global Change, The Impact of Humans on their Environment*, Smithsonian Books, Washington, 2004, p. 89. See also the changing forest as an impact of climate change in David Hunter, James Salzman, and Durwood Zaelke, Thomson Reuters/Foundation Press, New York, 2011, p.628; See also Patricia Birnie, Alan Boyle, and Catherine Redgwell, *International Law and the Environment*, Third Edition, Oxford University Press Inc, New York, 2009, p.336.

⁸ Philippe Sands, 2003 (forth printing 2007), *Principles of International Environmental Law*, 2nd ed, Cambridge, Cambridge University Press, p. 358. Regarding the idea to use of this principle for the atmosphere, See also Patricia Birnie, Alan Boyle, and Catherine Redgwell, *International Law and the Environment*, Third Edition, Oxford University Press Inc, New York, 2009, p.338-339.

wealth, and *karana* means source or the causality.⁹ Tri Hita Karana is a live philosophy of Balinese people that includes three elements establishes balance and harmony in relationships between human and the God, amongst the humans, and humans and their environment as sources of prosperity, peace and happiness for human life.¹⁰ Hindu scholars consider that this principle is a reflection of Hinduism value which lay down in the holy book of *Bhagavad Gita* (III.10).¹¹ Basically, Tri Hita Karana covers three main components, namely *parahyangan* (*God aspects*), *pawongan* (*human aspects*), and *palemahan* (*nature/environment aspects*). This principle clearly underlines the important of environment in order to achieve a wealth and happiness.

One example that can show how the philosophy of Tri Hita Karana is genuinely implemented in Bali can be seen in the context of the protection of plants and forest.¹² As an overview, the forest area in Bali as declared by Decree of Minister of Forestry No.433/Kpts-II/1999 dated on June 15, 1999 is around 130,686.01 hectares or equal with 23.20% of Bali Island.¹³ It consists of conservation forest area, protected forest and production forest.¹⁴ In West Bali, the Taman Nasional Bali Barat covers a wide area of forest where the animals, including the rare species of *Jalak Bali*, live freely. The forest surrounding Mount Batukaru is a famous natural forest where a peculiar tree of *majagau* exists. A large area of mangrove forests surrounding the coastal areas of Southern part of Bali is a positive development as a result of government and foreign initiatives. Sacred monkey forests in Sangeh, Alas Kedaton and Ubud have also widely known as tourist destinations.

⁹ AA Gede Raka Dalem, *Filosofi Tri Hita Karana dan Implementasinya dalam Industri Pariwisata*, in AA G Raka Dalem, et, al (Ed), *Kearifan Lokal dalam Pengelolaan Lingkungan Hidup*, UPT Penerbit Universitas Udayana dan Pusat Penelitian Lingkungan Hidup, Denpasar, 2007 p. 83.

¹⁰ See Art. 1 of the Provincial Regulation of Bali Number 16 Year 2009 concerning the Zoning Plan of the Province of Bali Year 2009-2029.

¹¹ See the explanation regarding the origin of the term "Tri Hita Karana" in I Ketut Wiana, *Tri Hita Karana Menurut Konsep Hindu*, Paramita, Surabaya, 2007, p. 5-10.

¹² The English term of 'forest' is understood by Balinese people as what so commonly called as *alas* or *wana* in Balinese terms See I Gusti Made Sutjaja, *Practical Balinese English, English Balinese Dictionary*, PT. BP, Denpasar, 2000, p. 20.

¹³ Statistik Balai Konservasi Sumber Daya Alam Bali tahun 2009, Denpasar, Maret 2010, p. 7.

http://www.dephut.go.id/files/Stat_BKSDA_Bali_09.pdf

¹⁴ *Ibid.*

The Balinese people believe that the existence of plants and forest are essential to ensure the good condition of live. They have much local wisdom in protecting their forest. As an example, there is a belief that if human cut a tree, they must plant a new seedling. The living concept of *wana kertih* certainly makes the Balinese people consider forest as an integral part of their live. *Wana kertih* are plants in the form of forests, which must be preserved by building an *alas angker* temple, in order to protect the forest from the nonphysical world.¹⁵ In the concept of *wana kertih*, there should be ritual *pakelem*¹⁶ to the forest or to the mount. According to I Ketut Wiana, such ritual should encourage the people to create action programs to maintain the existence of the forest.¹⁷

The Balinese people also incorporate the respect of the existence of plants and forest in their religious activity. The holy day of *tumpek pengatag* -- which is also commonly called as *tumpek wariga*, *tumpek uduh* or *tumpek bubuk*¹⁸ -- is an example of how Balinese people reflect their traditional consciousness to maintain the plants, forest, and the earth. Every 210 days --according to the Balinese lunar calendar system-- *tumpek pengatag* is celebrated by giving offerings to the trees, in which this kind of ritual is generally classified as *bhuta yadnya*.¹⁹ It is an old tradition which has been initially practiced since the era of *Maha Rsi Markandeya* in around 8 AC.²⁰ Philosophically it is an expression of thankfulness to the God because of his blessing to the plants and the trees.

¹⁵ See Elucidation of Article 2 (b) (2) of the Provincial Regulation of Bali Number 16 Year 2009 concerning the Zoning Plan of the Province of Bali Year 2009-2029. This elucidation also explains that *wana kertih* is part of *Sad Kertih*, a six-source welfare that must be preserved in order to achieve inner and outer happiness. Beside *wana kertih*, it consists of *atma kertih* (the preservation of the individual spirit/soul), *danu kertih* (the preservation of the lake), *segara kertih* (the preservation of the sea), *jana kertih* (the preservation of the human being as a perfect individual) and *jagat kertih* (the preservation of the social harmony). See I Ketut Wiana, *Tri Hita Karana Menurut Konsep Hindu*, Paramita, Surabaya, 2007, p. 66-68. The term 'nonphysical world' is a translation of Balinese word of '*niskala*', I Gusti Made Sutjaja, *Practical Balinese English, English Balinese Dictionary*, PT. BP, Denpasar, 2000, p. 111.

¹⁶ *Pakelem* is sacrificial animals or objects. See I Gusti Made Sutjaja, *Practical Balinese English, English Balinese Dictionary*, PT. BP, Denpasar, 2000, p. 117.

¹⁷ I Ketut Wiana, *Tri Hita Karana Menurut Konsep Hindu*, Paramita, Surabaya, 2007, p.67.

¹⁸ See also I Made Sujaya, *Bali Post*, Minggu, 10 Juni 2007 at http://www.parisada.org/index.php?option=com_content&task=view&id=368&Itemid=79

¹⁹ This ritual is primarily aimed to stabilize the fluctuation of the environment and keep the environment in harmony. See I Gusti Agung Gede Putra, et.al, *Sejarah Perkembangan Agama Hindu di Bali, Proyek Penyuluhan Agama dan Penerbitan Buku Agama 1987/1988*, Pemerintah Tingkat I Bali, Denpasar, 1987, p. 107.

²⁰ See I Made Suasthawa *Dharmayuda, Kebudayaan Bali: Pra-Hindu, Masa Hindu, dan Pasca Hindu*, Kayumas Agung, Denpasar, 1995, p. 55

Interestingly, the traditional community which is organized in a traditional institution namely *desa pakraman*²¹ also has significant role in the management and protection of the forest. For instance, the forest protection carries out by traditional community who live in Desa Pakraman Buahhan, Kintamani Bangli can be used as a good model. This village has 450 hectares of forest -- which is commonly called as *alas kekeran*-- from the total 700, 11 hectares of its area.²² They highly respect the customs and their ancestral messages to conserve forests, land and water.²³ Therefore, the existence of the forest remained intact until present day. It implies that the community-based forest management has applied effectively.

Scientifically, in the context of climate, forest is a natural carbon sink which provides plants and vegetation that are necessary to become the carbon's captors. Hence, the role of traditional community in Bali to conserve their forest which implies the low level production of emissions is actually cannot be denied.²⁴

The controversy of the plan to establish a geothermal power plant in Bedugul area in the last 2 decades describes the dilemma between the need to provide sufficient energy and the preservation of forest. An environmental NGO WALHI accuses that the development of this mega-project has contributed for the 49 hectares deforestation of the forest surrounding Bedugul.²⁵ Unfortunately, there are different policies at the level of national and provincial governments. The Minister of Energy and Mineral Resources intended to continue this project while the Governor of Bali as well the Head of House of Representative of Bali expressed their objection. It must be underlined that the contrasts tendentiously

²¹ It is a kind of traditional village in Bali which is also known as *desa adat*

²² Article "Desa Pekraman Buahhan , Kecamatan Kintamani, Kabupaten Bangli, Provinsi Bali Tak sembarang orang berani menyentuh sumber air di Alas Kekeran, http://www.menlh.go.id/kalpataru/kalpa2008/desa_adat_Pekraman_buaran.htm

²³ This ancestor messages can be found in 23 sheet of inscription namely *Prasasti Bhatara Ratu Pingit*. It is stored at a perforated stone at the Alas Kekeran which is sacred as worship to the spirit of ancestors. Ibid.

²⁴ The authors realize that there are also many criticisms regarding the change of livelihood pattern of Balinese traditional people from agriculture into tourism industry because of the progressive development of tourism sector. However, in the context of environmental protection, significant role from NGOs to campaign the need of proper environment has gradually opening the awareness of the Balinese people.

²⁵ Article, "Walhi Bali Tuding Ada Kepentingan Lain di Balik Geothermal Bedugul", <http://www.voaindonesia.com/content/walhi-tuding-ada-kepentingan-lain-di-balik-geothermal-bedugul-136135978/102494.html>

ignoring the scientific research released by the pros, by insisting that this project can essentially disturb the balance of nature in Bali. They also expressed their concern on the religious, environmental, economic, and social impacts that potentially resulted from this project. Interestingly, there are also engagements of traditional community in this controversy. Jro Gede Suwena, *Ketua Majelis Utama Desa Pakraman* (The Head of the Assembly of *Desa Pakraman* at the level of Bali Province) urged the Indonesian Ministry of Energy and Mineral Resources not to force the running of the project by considering that Bedugul is a water catchment area,²⁶ while some *Desa Pakraman* clearly supports the continuing of this project.²⁷ A recent survey was carried out by Lembaga Kajian dan Penelitian Peradah, a research center under an Indonesian Hindu Youth Association. It has gaining perception of 302 respondents who are Balinese Hindu Community who live in the area of Jakarta-Bogor-Tangerang-Bekasi from April until May 2012.²⁸ On the question whether the respondents agree or not with the establishment of the Geothermal Power Plant in Bali, 58, 2 % expressed their agreement, while 21, 6 % disagreed and 22, 3% were abstain. Interestingly, on the question what aspects that should be taken into consideration if a renewable energy is managed in Bali, 51, 2 % mentioned the preservation of the environment while the others chose the aspects of society involvement, the sanctity area, not endangering, etc. In the context of carbon emission, this problem is like 2 faces of coin. One side, the geothermal power plant is scientifically considered as one of the cleanest technology. Hence, once it would be established, it will gradually replace the current diesel fuel power plants in Bali.²⁹ Certainly, this is a positive thing for the good climate. In other side, the fact that this project will eliminated some parts of forest surrounding Bedugul is not entirely good solution if it is viewed from the carbon sink

²⁶ Ibid

²⁷ Article, “Tokoh Masyarakat Bedugul Sayangkan Pernyataan Menteri asal Bali”, <http://bisnisbali.com/2011/12/17/news/bisnisumum/bbn.html> and also P. Raja Siregar “Si Bersih Yang Ditolak Pemuka Agama (Pembangkit Listrik Geothermal Bedugul-Studi Kasus)”, <http://www.forplid.net/studi-kasus/9-energi-energi-/120-pembangkit-listrik-geothermal-bedugul-.html>

²⁸ Media Hindu Edisi 104 Oktober 2012, p.

²⁹ According to the spokesperson of the Bali branch of state-owned electricity company PT PLN Agung Mastika, the plants' diesel generators consume 1.4 million liters of diesel fuel per day. Sixty percent of Bali's power was supplied by plants using diesel generators, including Pesanggaran plant in south Denpasar, which produces up to 152 MW, Gilimanuk in western Bali with 130 MW and Pamaran in North Bali with 80 MW. <http://www.thejakartapost.com/node/167876>

perspective. Although, there is also argument that geothermal power plant is actually maintain the existence of environment. This is an ongoing matter. How this problem will be finally solved, whether it would be established or not, it will certainly describe a story regarding the role of Balinese people in re-contextualizing their traditional value.

Beside forest protection, another important example regarding the practice of Balinese people in reducing the carbon emission is Nyepi day.³⁰ It is a day for celebrating the New Year according to the *tahun çaka*. During Nyepi, Balinese-Hindu people partake in *catur brata penyepian*, the Four Abstinenes, including *amati geni* (abstaining from lighting any fire or turning on electricity), *amati karya* (abstaining from working), *amati lelungan* (abstaining from going outside the family home) and *amati lelanguan* (abstaining from indulging in any pleasurable activities).³¹

Usually, the people stay at home with their own small family. Mostly, they praying, meditating or contemplating during the day, when some people are also fasting. With coordinating to the formal security apparatus, the *pecalang*³² has given tasked to ensure the security of the Nyepi day.

One should be noted is that there are several villages in Bali that practicing Nyepi Day more than once a year such as Bugbug³³ and Banyuning. In the village of Banyuning, Singaraja, another form of Nyepi day is celebrated a day after *tilem sasih kapat*, the forth dark moon within the Balinese lunar calendar system.³⁴ This practice which has been recognized since the century of 13 AC is aimed at the respecting of the fertile of the earth (soil).³⁵ During this peculiar Nyepi day, the traditional community of the village of Banyuning also practices the *catur brata penyepian*.³⁶ There are also other villages

³⁰ There are several English translations for Hari Raya Nyepi, for example: Hindu day of Nyepi, Silent day, Bali's day of silence, and Balinese day of silence. In this paper, the authors use the term of "Nyepi Day"

³¹ Ni Komang Erviani, Article "The Balinese Hindu Day of Silence, Nyepi, reduced the island's CO2 (carbon dioxide) emissions by up to 30,000 tons, according to an NGO", the Jakarta Post, Denpasar March 26, 2012
<http://www.thejakartapost.com/news/2012/03/26/nyepi-reduces-carbon-emissions.html>

³² The traditional guard (police) belongs to the *desa pakraman*

³³ <http://iwbdenpasar.wordpress.com/2009/03/>

³⁴ Article "Desa Banyuning Laksanakan Nyepi Khusus" Harian Umum Nusa Bali, Senin 17 September 2012, p. 4.

³⁵ Ibid

³⁶ Ibid

which celebrate Nyepi day exclusively at their own area of village with regard to their peculiar rituals which is so called *ngusaba*, such the Village of Pujungan-Tabanan.³⁷

During Nyepi day, the Government of Bali issues a policy to ensure the implementation of this ceremony by closing airport and ports in order to terminate the departure and arrival activities from and to the island of Bali. Positively, there is neither air pollution resulted by the people, nor water and soil pollutions. The road is free from the cars and motorcycles, the beach is empty from the machines of the fisherman's boat, and the airport also stops its regular aircraft activities. It is also amazing to realize that there is no single industry carries out its daily production. Hence, the sky is certainly blue during the day and thousands stars can be clearly seen during the night. In this regard, the practice of Nyepi day in Bali can be analogized as giving chance to the earth to breath in health for a day.

On 8 December 2007, there was a peace demonstration with the title "Cultural Parade for Climate Change" organized by NGOs in Renon, Denpasar Bali. It was a 'street summit meeting' which can be considered as a competitor of the formal UNFCCC which arranged in Nusa Dua, approximately 30 Kilometers from the location of the demonstration. Many Indonesian and international NGOs took part in the demonstration as well a lot of Balinese people which wearing their traditional clothes. Interestingly, there were many posters delivering messages about the Principle of *Tri Hita Karana* and campaigning the world Silent day every 21 of March as like annually practiced in Bali. A factsheet released by NGOs describes that the CO₂ resulted by cars, motorcycles, and aircraft in Bali per day is estimated at least around 17.316 tons.³⁸ It excludes the CO₂ resulted by the sea activities, industries, and power plants.³⁹

³⁷ See and <http://mpuprema.blogspot.com/2009/09/nyepi-ngerestitiang-karya.html> and <http://www.journalbali.com/culture/etnika/nyepi.html>

³⁸ "Pesan Kearifan dari Bali untuk Mengurangi Emisi Gas Rumah Kaca" Lembar Informasi No. 4 Nopember 2007 Kolaborasi Bali untuk Perubahan Iklim (Bali Collaboration for Climate Change).

³⁹ It was also cited in Article "Nyepi (Hening) Untuk Bumi Menghadapi Perubahan Iklim Dengan Kearifan Lokal", published, Serasi, Media Komunikasi Lingkungan Kementerian Lingkungan Hidup Republik Indonesia, Edisi 02/2009, p.33. http://wwwnew.menlh.go.id/Serasi/tahun2009/Serasi_Vol-2-2009.pdf

There is also data which estimating that Nyepi day reduces 20,000 tons of carbon dioxide emission.⁴⁰ A few months ago, an NGO Walhi Bali mentions that during the 24 hours of the Nyepi Day in Bali, up to 30,000 tons of CO₂ emissions can be reduced.⁴¹

A decade ago, there was a scientific data regarding the air pollution in Denpasar, the capital city of Bali Province, during the implementation of Nyepi day in April 2002. This data was published in an article with the title “Hari Raya Nyepi dan Maknanya dalam Kelestarian Hidup”, written by Nyoman Adiputra, Ketut Tirtayasa dan Dewa Putu Sutjana.⁴² It studies the air quality level in the Denpasar, by using 3 samples of area namely Pegok Denpasar Selatan, daerah UNHI Denpasar Timur, and Stadion Kompiang Sujana Denpasar Barat to collect data.⁴³ The survey was focused on the pollutant components such as SO₂, CO, O₃, NO₂, and NO by comparing the air quality in those three samples on the Nyepi day and on the average days excluded Nyepi day in April 2002.⁴⁴ Foreseeable, the result of the study found that there was a wide gap of the level of air pollution between the Nyepi day and the other days.⁴⁵ It implies that the decrease of the pollutant level during the 24 hours practice of Nyepi day is successful to improve the air quality in the city of Denpasar.

The Nyepi day also extremely reduces the consumption of energy. It can be assessed that the use of electricity at the house of peoples almost nothing because of the abstention of use of lamp, radio, and television. During the Nyepi Day on 7 March 2008, two power plants in Bali, PLTGU Pemaron and PLTG Gilimanuk, are stopped operating.⁴⁶ According to the General Manager PT PLN Wilayah

⁴⁰ <http://www.worldsilentsday.org/>

⁴¹ Ni Komang Erviani, Article “The Balinese Hindu Day of Silence, Nyepi, reduced the island’s CO₂ (carbon dioxide) emissions by up to 30,000 tons, according to an NGO”, the Jakarta Post, Denpasar March 26, 2012
<http://www.thejakartapost.com/news/2012/03/26/nyepi-reduces-carbon-emissions.html>

⁴² AA G Raka Dalem, et, al (Ed), Kearifan Lokal dalam Pengelolaan Lingkungan Hidup, UPT Penerbit Universitas Udayana dan Pusat Penelitian Lingkungan Hidup, Denpasar, 2007, p. 157-162

⁴³ Ibid, p. 158.

⁴⁴ Ibid.

⁴⁵ Ibid, p. 158 and 160.

⁴⁶ Article “Nyepi Hemat Energi Rp3 Miliar“ <http://news.okezone.com/read/2008/03/10/1/90508/1/nyepi-hemat-energi-rp3-miliar>

Distribusi Bali Mr. Sudirman, this action has successfully saved the use of around 500.000 liters of diesel fuel or equal with 3 billion rupiahs.⁴⁷

In 2012, it has been calculated that 3,000 kiloliters of subsidized fuel were successfully saved during Nyepi day on 23 March 2012 and has been also estimated that Bali had also reduced the use of subsidized fuel by 20 percent on a day after Nyepi day as many residents had not resumed their normal activities.⁴⁸ Moreover --as released by Pertamina Bali-West Nusa Tenggara area sales manager Lin Febrian-- Pertamina stopped the distribution of aviation fuel around 80 Kiloliters as there was no aviating activity at Bali's Ngurah Rai Airport during Nyepi.

Indeed, the Nyepi day is a reflection of the local value of Balinese people. However, it must be objectively explained that the current practice of Nyepi day actually gets fully support from the Government at both national dan local levels. Since Nyepi day was officially determined as a National Holiday by the Government of Indonesia in 1983 by a Presidential Decree Number 3 Year 1983,⁴⁹ the celebration of Nyepi day in Bali and many other places in Indonesia relatively effortless to be organized. Annually, the national holiday for Nyepi --as well the religious days of other official religion in Indonesia- - is always jointly discussed and determined by Minister for Religious Affairs, Minister of Labour and Transmigration, and Minister of State Apparatus Empowerment and Bureaucracy Reform. For instance, the celebration of Nyepi Day on the last 23 March 2012 has been previously decided on 13 July 2011 by the three ministers.⁵⁰ For the next year, they have also decided together that the Nyepi day will be officially celebrated on 12 March 2013.⁵¹ Another example of the government support is with

⁴⁷ Ibid

⁴⁸ Article "Nyepi, Pertamina Hemat 3.000 Kiloliter BBM Bersubsidi", 25 Maret 2012, <http://regional.kompas.com/read/2012/03/25/0606155/Nyepi.Pertamina.Hemat.3.000.Kiloliter.BBM.Bersubsidi> and Article "3,000 kiloliters of fuel saved during Nyepi" The Jakarta Post, Denpasar | Archipelago | Sun, March 25 2012, <http://www.thejakartapost.com/news/2012/03/25/3000-kiloliters-fuel-saved-during-nyepi.html>

⁴⁹ This Presidential Decree can be accessed at www.bphn.go.id/data/documents/83kp003.doc

⁵⁰ Keputusan Bersama Menteri Agama, Menteri Tenaga Kerja dan Transmigrasi, dan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Nomor 7 Tahun 2011, Nomor 04/MEN/VII/2011, Nomor : SKB/03/M.PAN-RB/07/2011 <http://kemenag.go.id/file/dokumen/Cutibersamadanlibur2012.pdf>

⁵¹ Keputusan Bersama Menteri Agama, Menteri Tenaga Kerja dan Transmigrasi, dan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi RI Nomor 5 Tahun 2012, Nomor SKB. 06/MEN/VII/2012, dan Nomor 02 Tahun 2012. <http://kemenag.go.id/file/file/surat/wthg1343030346.pdf>

regard to the television. Before the celebration of Nyepi day in 2012, the Governor of Province of Bali on his letter Number. 482.11/971/Humas requested the broadcast enterprises not to broadcast or relay to the territory of Bali in order to give the Balinese people implement their *catur brata penyepian* solemnly.⁵² The Head of Commission A of the House of Representative of Bali also held a consultation to the Indonesian Broadcasting Commission in Jakarta in order to support the restriction of broadcast in Bali during the Nyepi day.⁵³

Birnie, Boyle, and Redgwell arguing that science has played a decisive role in the formation of the current regime of climate change.⁵⁴ By observing the phenomena of existing local values and traditions in Bali, this argument should be also complement by an understanding that local values also have significant contribution in solving the climate change problems, even though those values are not specifically recognized under the positivistic climate change regime.

5. Conclusion

The climate condition these days are worrying, have to be a main attention locally (nationally) and internationally. The characteristic of environmental problems that unattached with the region boundary and time makes the climate justice issue becoming priority for the authorities and policy makers. Globally this time, emission calculation is still using global approach as aggregate for general calculation. This matter becomes injustice to developing countries because they have the similar treatment when they giving the different contribution compared to developed countries that are main

⁵² <http://www.kpi.go.id/component/content/article/14-dalam-negeri-umum/30459-gubernur-imbau-media-tidak-siaran-selama-nyepi->

⁵³ http://www.kpid-baliprov.go.id/index.php?option=com_content&view=article&id=61:konsultasi-nyepi-kpi-bali-dampingi-komisi-1-dprd-bali&catid=1:berita-utama

⁵⁴ Patricia Birnie, Alan Boyle, and Catherine Redgwell, *International Law and the Environment*, Third Edition, Oxford University Press Inc, New York, 2009, p. 337. See also Stephen H. Schneider, Armin Rosencranz, Michael D. Mstrandrea, and Kristin Kuntz-Duriseti, *Climate Science and Policy*, Island Press, Washington, 2010

emitter. Based on the common concept but differentiated responsibilities, developing countries have justification to use their rights to develop what they have.

However, the proposition has not being smoothly acceptable and in fact for some people, they use it to maximize their own profit. The imbalance emission that happened in the big cities with certain's lifestyle and uncontrolled energy utilization pattern made them as the main emission consumer in a country. This matter of course giving the conclusion that some people had becoming free riders to the emission quota utilization. One of the discourse and further research that can be performed in this context is the existence of personal emission concept without considering region and administration boundary. This concept for some people can be suitable, but recognition only to a country entity in the international law dimension will give its own difficulty for the implementation personal emission concept.

From the fact above, we can make note that there is correlation between local value and climate injustice. We can see that local value especially in Bali can drive lower carbon activities. In other regions maybe there's some local values which have the similar function. That phenomenon is a conclusion that global problem can certainly be solved with local attitude.

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