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Marcel Hendrapati
Faculty of Law, Hasanuddin
University

Impact of the global warming towards straight baselines in context of Indonesian archipelagic state

Marcel Hendrapati

Abstract

Global warming is a natural phenomenon that has been occurring since some recent decades due to something called as glass house effect produced through development activities, especially in field of industrialization and transportation. Emission of the glass house gas which for a greater part consists of CO₂ damaged the ozone layer in fact, whereas such the layer is functional to protect earth surface from dangerous ultraviolet ray to health of the human being. Accumulation of abundant pollutants causes the earth's inhabitants settle in and stay within glass house, since this earth is relatively incapable to eradicate or absorb the emission of glass house substances. The glass house's gas can move up and down merely within atmosphere space and makes temperature of the earth surface be on the significant increase for occurrence of the global warming. The global warming which has already been running on not only brings a climate anomaly, but also and particularly causes emergence of phenomena, such as the melting icebergs and ice-shelves of the Arctic and Antarctic with its impact to the archipelagic baselines.

Keywords: Global Warming, Archipelagic State, Baseline.

1. Introduction

Global warming is a natural phenomenon that has already been emerging since some recent decades due to something we call glass house effect produced through the activities of economic development especially in the industrialization and transportation sector. Emission of the glass house gas which for a greater part consists of the emission of CO₂ gas (carbon oxidized gas) damaged the ozone layer in fact, whereas such the layer is functional to protect earth surface from dangerous ultraviolet ray to the health of human being^[1]. Accumulation of pollutants yang melebihi ambang batas causes inhabitant of the earth settle in or stay within glass house because our earth is not relatively capable to absorb the emission of the glass house substances. The gas of glass house can only move up and down within atmosphere space and makes temperature of the earth surface be on the significant increase for occurrence of the global warming. The global warming which has been already running on not only brings a climate anomaly, but also and particularly causes emergence of phenomena such as the melting icebergs and ice-shelves of both the Arctic and Antarctic^[2]. On the September of 2009 ice-floes or icebergs in a greatest number coming from the Antarctic became visible in floating condition on the waters around New Zealand of which the distance to coastal line of that country was twenty five kilometers at that time. Then on October 2009 discovered were giant size icebergs around the Macquarie Island, Australia; there were icebergs with width of two kilometers (2 km) and there were icebergs similar to stadium Olympic of Beijing which was called as the bird nest stadium^[1]. On November 2009 through satellite photo shown were icebergs in the great groups moving from the Antarctic transitting an area of Auckland island which was lying around 450 km to the sea East of New Zealand state. Such this event was published that all the ships navigating in the area concerned might be carefull because their existence could endanger the safety of navigation.

A volcanic eruptions in the glacier area Eyjafjallajokull, Iceland state have been emerging since 14 April of 2010. The volcanic dusts blowing up which reached a height about ten kilometers polluted the air of a greater part of European states in such a way so that overflight activities from and to Europe continent had to be stopped for an unlimited time since the volcanic dusts absolutely endangered the aircraft machine. Besides the volcanic dusts blowing up, the eruption of volcano in Iceland melted the glacier of Eyjafjallajokul area as well so that the surface of the river waters rised up to the height of three meters that brought impact to the sea level rise^[4].

Correspondence:
Marcel Hendrapati
Faculty of Law, Hasanuddin
University

Furthermore in July 2010 occurred an event, that is to say the sinking of an island within Panama archipelago called Carti Sugdub. The sea level rise due to the global warming results in and forces thousands of original inhabitants of Panama (ethnic group Kuma) leave their habitat on the islands of low plain in the archipelagic state of Caribbean. More irregular season, tornado and higher wave due to the global warming make the island concerned within the Panama archipelago sink^[1]. The ice shelves in great number which were moving from the Antarctic region towards New Zealand country, and occurrence of volcano eruption in Iceland as well which melted down the glacier above, and the evacuation of the ethnic group Kuma from its habitat due to the sinking of an island Carti Sugdub within Panama archipelago caused by the marine surface increase due to global warming. All those phenomenas concerned constituted the signal of the global warming occurrence. Besides it brought impact to the climate change, the global warming has already caused the melting icebergs or ice-shelves which have been perpetual for thousands years. Nevertheless since some recent decades their existence in the Arctic and Antarctic have already been in a very dangerous level so that if there was not any international arrangement of binding force to prevent and suppress the global warming would accelerate the icebergs melting process which would furthermore cause the occurrence of the sea level rise. The sea level increased until a few metres due to global warming will threaten and have potentiality to sink both the island states and the archipelagic states lying on the Indian and Pacific Ocean. Republic of Indonesia as an archipelagic state and a maritime continent^[1] will not be free from possibility of loss or sinking of thousands of islands, including the outermost small islands used as basepoints in drawing the archipelagic straight baselines. According to an analysis output made by an institution called as German Watch, Indonesian country occupied the third position to run the very high risk of the global warming impact. The establishment of this position was conducted on the basis of criteria regarding the occurrence of natural disaster related with the climate change due to the global warming. .

2. Formulation of Problem

This article is written with the purpose to explicate various impacts of global warming towards the Indonesian archipelagic baselines as they are regulated in UNCLOS of 1982, which are implemented in various national legislations of Indonesian state, such as Law of Indonesian Republic Number 6 Year 1996 (regarding Indonesia Waters) and Government Regulation Number 38 Year 2002 (regarding the geographical coordinate list of basepoints of archipelagic baselines) and the other various acts. What kind of its impact is to the archipelagic baselines which are so essential for the maritime boundaries and the existence of the Indonesian Republic as an archipelagic state?^[1] Furthermore, what sort of efforts will be conducted to suppress the impact of the global warming, where such efforts will contribute to keep and ensure the archipelagic baselines. Therefore this article will analyze one of the law of the sea aspects related with the Indonesian archipelagic baselines which bring dryness, flood, tornado and occurrence of the sea level rise as well. Besides that, the analysis object also aims to discover variable efforts needed to be conducted to suppress or overcome the impact of the global warming,

where these efforts should be finally directed for a sustainable existence of the Indonesian Republic as an archipelagic state of which the main principle lies on the archipelagic baselines.

3. Global Warming and Outermost Islands

The provision of article 47 of the Convention on the Law of the Sea of 1982 stipulates that an archipelagic state may draw straight archipelagic baselines joining the outermost points of the outermost islands and drying reefs of the archipelago provided that within such baselines are included the main islands and an area in which the ratio of the area of the water to the area of the land, including atolls, is between 1 to 1 and 9 to 1.. This provision has been applied by Republic of Indonesia provided for in article 5 – 6 of the Law Number 6 Year 1996 regarding Indonesian Waters and articles 2, 3 and 4 of Government Regulation Number 38 Year 2002 regarding the geographical coordinate list of basepoints of the straight archipelagic baselines which certainly accommodate an Indonesian national interest in the waters as a whole, especially the waters which are lied in the internal part of the straight archipelagic baselines. These baselines aren't independent ones. That's why they have to be used in turn with the normal baselines, straight baselines, closing lines (on bays) and straight lines (on rivers and ports). The Government Regulation Number 38 Year 2002^[1] implementing and specifying the provisions of articles 5 and 6 of the Law Number 6 Year 1996 regarding Indonesian archipelagic baselines also contains a sort of annex concerning the outermost islands of Indonesian Republic of which the number is 92, where every outermost island has already been established in the case of its coordinate to mark the position of the outermost islands concerned. Are the archipelagic baselines of which the cores are the straight archipelagic baselines of Indonesia, just limited on the 92 outermost islands used as the outermost points or basepoints. Is the whole number of straight archipelagic baselines just about 90 ones? Such this question constitutes a different matter which is not needed to analyze in this moment.

Furthermore every straight archipelagic baselines shall not exceed 100 nautical miles in its length, except 3 per cent of the total number of baselines enclosing any archipelago its length may exceed that length (100 nautical miles), but shall not exceed 125 nautical miles. It is estimated that each straight archipelagic baseline of Indonesia has average length from 80 until 100 nautical miles, but a few of them may exceed 100 nautical miles. The global warming elevates the sea surface level and causes large body of territory narrow, even so has potentiality to sink many islands, particularly the outermost small ones. Such this situation certainly may bring implication to the principles of archipelagic states which have been already implemented by Republic of Indonesia, such as inclusion of all the the main islands within the straight archipelagic baselines and the ratio of the area of the water to the area of the land, including atolls is between 1 to 1 and 9 to 1^[4].

Republic of Indonesia exists on third grade of being infected by the global warming impact which potentially makes thousands of the Indonesian islands sink, including the outermost islands used as basepoints in establishing the straight archipelagic baselines. In such these circumstances the straight archipelagic baselines where every such baseline has length about 80 until 100 nautical miles will be infected

of moving and changing when thousands of islands including the outermost small islands disappear or sink. If there isn't any international treaty of binding force to overcome the emission of glass house effects of which impact and result are so terrible, the existence of Indonesian country as archipelagic state will be something that has to be questionable from the sustainability point of view. However will a gap emerge between the present existing situation of Indonesia and its next situation marked or coloured by occurrence of the straight archipelagic baselines, even this country will lose many straight archipelagic baselines due to sinking of the outermost islands as a consequence of the global warming. Nevertheless it is necessary to emphasize again that such this condition is not something impossible to occur, if there isn't any international commitment to overcome this tremendous problem. Without any effort to mitigate the emission of glass house effects, particularly carbon dioxide (CO₂), then in a long term the global warming will bring both a change of climate pattern and circle of life and will sink and eliminate thousands of islands, including fourteen island states (Island State) in Indian Ocean (such as Maladewa) and Pacific Ocean (such as Seychelles, Tuvalu, Palau, Kiribati etc). Due to the global warming, at least eighteen islands sank and disappeared from a world map, inter alia seven islands of New Guinea State. Island State Kiribati itself lost at least three islands and thirty other islands of Kiribati have being sunk at this moment. Therefore various measures to overcome the impact of glass house effects's pollution, such as the increase of marine surface temperature, coral destruction due to the acidity of the sea, melting icebergs of Arctic and Antarctic area, sea level rise and sinking of the islands. Indonesian country is predicted to lose more or less two thousand islands on year 2030 if there isn't any effort both of the international community and especially of our country. It is inevitable that a part of more or less two thousand islands of this Republic which will be sinking is of course the outermost islands which are used so far as the outermost points or basepoints in drawing the straight archipelagic baselines, whereas these baselines constitute a main principle to ensure maritime boundaries and eventually the existence of the Indonesian Republic as an archipelagic state. The loss of a part of the outermost islands will certainly make the archipelagic straight baselines collapse and all its implications and finally may move forward to failure of our existence as archipelagic state.

A Configuration of the Indonesia's archipelagic state which is similar to a lumping horse (kuda lumping) ^[4] as something acknowledged through the cultural art of Javanese community may potentially remain as a remembrance if the emission of glass house gasses which are so damaging and harmful can't be suppressed by international society. The configuration concerned can't be separated from and has to be seen in context of the article 47 paragraph 3 of 1982 Convention on the Law of the Sea and article 3 paragraph 3 of Law Number 6 Year 1996 stipulating that the drawing of the archipelagic straight baselines shall not depart to any appreciable extent from the general configuration of the archipelago. The configuration created through straight archipelagic baselines which are used secara silih berganti with the other baselines does not depart to any appreciable extent from the general configuration of the Indonesia's archipelago territory, since when this configuration is observed accurately, it shows something artistic of which

performance is similar to a figure of lumping horse (kuda lumping) that is very famous in the cultural art of Java. The global warming potentially sinking and eliminating thousands of islands from the world map, including hundreds of the outermost islands of Indonesia may impact to destroy the configuration of archipelago territory of so beautiful country and furthermore its existence as archipelagic state. As a consequence the international community generally and Indonesia particularly should take variable measures to overcome the glass house effects polluting and damaging the atmosphere as main cause of the occurrence of the global warming with all the impacts and consequences.

4. Efforts for Overcoming the Global Warming Impact

Copenhagen Accord adopted through Summit Conference on Climate Change in the Middle of December 2009 gained objection and protest coming from developing countries supposing that such this agreement has no binding force and mainly it doesn't establish a certain time limit to mitigate glass house emission which for a greater part consists of carbon oxidized. In various literatures used as international reference, such the agreement may be classified into agreement called as soft law because its substance just contains a number of recommendations, suggestions or encouragements for states untuk observe and implement its provisions. The implementation of the provisions of such the agreement muchly depends upon the commitment of every country in incorporating and implementing them in its national law inasmuch such the agreement hasn't internationally any binding force to the states ^[1]. The Copenhagen Accord regarding climate change can be classified into soft law and not hard law, since the content of such the agreement consists of recommendations or encouragements for industrialized countries, inter alia to register individually their emission reduction target. For the developing states are there some recommendations to register a number of measures which will be conducted in order to terminate or stop the global warming pollution in a specific number. The President of United States, Barrack Obama stated that the consensus concerned constituted terobosan yang belum pernah terjadi sebelumnya ^[6]. We have already been walking far, but we still have to walk more far again. If all the states or majority of the states expect previously until a comprehensive and binding consent is achieved, we won't do any advance. In existing circumstance, what does exist is frustration and sarcasm merely, doesn't take an advanced measure, but we stop with taking two steps of setback. A group of developing states criticizes the Copenhagen Accord as an insufficient consent because such this consent hasn't any binding force, whereas it stipulates as well that the emission of carbon oxidized must be reduced until the rise of global temperature does not go above two degree Celsius. Therefore it is more advanced than all the previous declarations (such as the Bali Road Map) which were adopted by developed states.

Regarding the measures which have to be committed by Republic of Indonesia to overcome the global warming potentially bringing various disasters and mainly threatening the existence of the straight archipelagic baselines which are base of the Union State of the Indonesian Republic (NKRI or Negara Kesatuan Republik Indonesia) as archipelagic state, then a thing which has been already said by our President, Susilo Bambang Yudhoyono in his speech in front of delegations coming from negotiating states of the United

Nations' Summit Conference regarding the Climate Change 2009 in Copenhagen, (it) had better be used as guidelines. He encourages that all the sides should dispel their interest each other in such a way that there might be a gap or possibility to achieve a maximal consensus and cooperation. Republic of Indonesia wishes to become a part of the global solution, especially in issue of the climate change. A wish to overcome the climate change issue as a consequence of the global warming could be realized inter alia with trying to mitigate voluntarily the emission of glass house effects as much as 26 percentages on 2020 or 41 percentages if this Republic obtain a foreign aid in the form of transfer of technology or financial aid in order to make adaptation and mitigation to the climate change..

How to achieve or to realize the achievement of the glass house effects' emission target as much as 26 percentages, it has to be realized through implementation of the various laws related with the protection and preservation of the environment, inter alia such as the Law Number 32 Year 2009 regarding the environment, the Presidential Regulation Number 78 Year 2005 regarding the management of the outermost small islands, which can support the achievement of the emission's reduction target on 2020 and soon. Furthermore, it has to be followed with the law enforcement in case of a violation of the laws, containing civil, administrative and criminal sanctions. Besides that, our country also needs to design and formulate an integrated and comprehensive national policy, which is incorporated and specified in a number of programs and action plans to make all the Indonesian people be aware of the significance and urgency to reduce or mitigate the emission of glass house effects. Finally, the national policy must be incorporated and institutionalized in law, government regulation and even in Peraturan Daerah stipulating inter alia, meaning of the global warming, the climate change, the causes of the occurrence of global warming, the impact and consequence of the global warming, the sides of role and responsibility for its impact and consequence, the law enforcement, and so on.

If the Republic of Indonesia wants to reduce the emission of glass house effects as much as 26 percentages on 2020, it must be more serious to commit concrete measures towards the achievement of the target which was voluntarily prescribed. These concrete measures, for instance if the Government of Indonesian Republic is eager to encourage the emission reduction in the sector of transportation, then besides must provide the environmentally friendly energy (bio fuel, bio solar), the Government must offer any incentive as well (in a form of tax reduction) for environmentally friendly car.

The real measures which have to be conducted by Republic of Indonesia aim to realize the mitigation of the glass house effects' emission as much as 26 percentages coming from the various sectors. Those measures will be just significant to overcome the impact of the global warming, mainly towards the small outermost islands and straight archipelagic baselines, if they gain any support of both the developing countries and the industrialized countries, particularly the countries producing greatest emission (China, United States, Russia, India, Japan, Germany, Canada, England, South Korea). Such this support is expected not only as lip service, but only and especially each state should voluntarily establish the national target for the emission mitigation, where the realization of the target should be implemented and specified with some concrete measures. The expectation

of the support concerned is very essential, because the commitment created through the various conferences of the UN regarding the climate change does't give any satisfaction to many states, particularly European Union and developing countries, since the existing agreements (such as The Bali Road Map, the Copenhagen Accord) have no binding force. Those agreements are different from the 1997 Kyoto Protocol. The Protocol which has been ever signed and ratified by United States under President Bill Clinton, but in fact this ratification was nullified or canceled by President George Walker Bush when he just became President of the United States on the beginning of 2000, whereas the Protocol mentioned above really has a binding force, provided it complies with a number of ratifications needed for its entry into force. Nevertheless the 1997 Protocol cannot internationally come into force because the number of ratification needed to make this Protocol apply is not completed until this moment. This Protocol cannot apply effectively without participation of United States even though the ratification number is reached before 2012. The agreement on the climate change as it is stipulated in the Bali Road Map and the Copenhagen Accord merely contains recommendation or encouragement to negotiating states to establish individual target for mitigating voluntarily the glass house emission. Such this agreement cannot ensure the achievement of the determined target. Therefore the fear of potentially sinking of thousands of Indonesia's islands, including a part of the outermost small islands which are used so far as the basepoints for drawing the straight archipelagic baselines, it (that is the fear concerned) might become a reality. The existence of the Union State of Republic of Indonesia (NKRI) as an Archipelagic State is not something impossible when it is in dangerous situation due to no internationally binding commitment or no international treaty which obliges the states, mainly the greatest emitter states to mitigate the emission, for instance as much 25 percentages until 30 percentages of glass house effects' emission on 2020, or as much 41 percentages calculated from the 1990.level.

5. Conclusion

Based on description as to the impact of global warming to the archipelagic baselines mentioned above, can be attracted some concluding remarks:

1) There is a closed connection between the glass house effects' emission, the global warming, the climate change, the increase of marine surface temperature, the melting icebergs in Arctic and Antarctic area, the loss or sinking of thousands of islands from the world map, including the outermost small islands of this country which are used as basepoints for drawing the straight archipelagic baselines thus far, even it isn't impossible that a final risk is the existence of the Union State of the Indonesian Republic as archipelagic state. The sinking of the outermost islands due to the global warming would move the straight baselines, would make the various boundary agreements between every neighbour state and our country change, even the Indonesian Republic existence as archipelagic state would be in dangerous condition.

2) The Copenhagen Accord 2009 is not an international agreement of binding force. This agreement or declaration merely contains encouragements or recommendations for the states, particularly industrialized states to make voluntary registration regarding the individual target for reducing the

emission of glass house gas to handle the global warming impact and all its implication. The developing states are encouraged as well to register the real and concrete measures which have to be conducted to suppress the glass house effects.

3) The commitment of Indonesian Republic to establish the target for mitigating the emission of glass house gas as much 26 percentages on the year 2020 or as much 41 percentages on the year 2050 calculated from the emission level of 1990. Such the commitment needs some real measures to realize the target concerned, like the law enforcement in case of violation of law related with the life environment, especially with the protection and preservation of marine environment. Besides the law enforcement, the commitment to reduce that emission needs as well a national policy incorporated into various programs and action plans, which are institutionalized in an Act, Government Regulation until Provincial Regulation and Regency Regulation (Peraturan Daerah). All the laws should stipulate inter alia some aspects of the global warming, climate change, scope of global warming occurrence, responsibility and liability, law enforcement, sanctions (civil, administrative and criminal sanctions), etc. All these laws should be directed to realize the individual and voluntary mitigation achievement target of the glass house effects' emission as much 26 percentages on 2020 in such a way that those measures might prevent and suppress the global warming impact towards the outermost small islands used as basepoints in drawing the straight archipelagic baselines.

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