The right to a good and healthy environment: Revitalizing green constitution

Z Aspan and A Yunus
Faculty of Law, Universitas Hasanuddin. Jl. Perintis Kemerdekaan KM 10 Makassar 90245, Indonesia.

E-mail: zulkifli.aspan@unhas.ac.id

Abstract. Indonesia is the most populous and had the highest absolute environmental impact along with Brazil, China, and India. The paper is a normative legal research, reviewing the right to a good and healthy environment as constitutional rights. The results show that the constitutionalizing of the principle of human rights to a good and healthy environment as fundamental rights on the philosophical, political, and legal dimensions is a necessity for a modern State. It will not be comprehensive to realize a universal environmental when it is not implemented by these three dimensions. In this context, the findings of research are reconstructed by a modern constitution based and oriented towards a universal environmental order.

1. Introduction
The movement of human rights constitutionalizing to a good and healthy environment is seen as a political and systemic and massive legal movement to several countries in the current democratic era of the modern state. Such reality is indicated by the incorporate of environmental issues as part of constitutional material in a number of countries in the world [1]. However, apart from the history of the human rights constitutionalizing to a good and healthy environment, it is clear that this reality increasingly emphasizes the position of the constitution as the supreme law in which its content material contains human rights to a good and healthy environment as constitutional rights.

A fact shows that the complex economic activity of a country have a direct impact on the quality of their environment. From a global perspective, the most populous and economically influential countries generally had the highest absolute environmental impact as seen in table 1. Brazil, USA, China, Indonesia, Japan, Mexico, India, Russia, Australia and Peru were the 10 worst-ranked countries [2]. According to Global Forest Watch, Indonesia was a densely forested area in 1950, but 40% of the forest that existed in 1950 was lost only in the next 50 years. If rounded off, tropical rainforests in Indonesia fall from 162 million hectare to only 98 million hectares. Indonesia occupies 2nd rank for natural forest loss and 3rd rank for threatened species. Indonesia occupies 3rd rank for CO2 emissions, 6th rank for fishing in the sea, 6th rank for fertilizer use, and 7th rank for water pollution. At present, almost 70 percent of rivers, lakes and beaches in Indonesia are polluted, both due to industrial and household waste [3].

These conditions empirically require a serious political and legal policy. In this context, the constitution as the highest law that binds all State components and a legal basis of all derivative legal
regulations must be placed as a tool of social engineering [4] on the complexity of environmental that not only have a domestic dimension but also global interests. However, at the same time legal studies on environmental issues including constitutional correlation with the environment increasingly appear. In Indonesia, Asshiddiqie [5] in his Green Constitution writes an environmentally sound constitution or a Green Constitution is very necessary. Even the term of green constitution has not been widely heard. Unlike the issue of democracy and human rights which has become a public discourse.

Table 1. Twenty worst-ranked countries by absolute composite environmental rank (lower ranks = higher negative impact) [2].

| Rank | Country    | Code | PD | PGR | GOV | GNI | NFL | HBC | MC | FER | WTP | THR | CO2 | eENV |
|------|------------|------|----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|------|
| 1    | Brazil     | BRA  | 166| 114 | 91  | 119 | 1   | 3   | 30 | 3   | 8   | 4   | 4.3  |
| 2    | USA        | USA  | 156| 139 | 26  | 167 | 21  | 211.5| 3  | 1   | 2   | 9   | 1.9  |
| 3    | China      | CHN  | 66 | 149 | 129 | 166 | 216 | 36  | 1  | 0   | 6   | 2   | 6.7  |
| 4    | Indonesia  | IDN  | 74 | 118 | 153 | 132 | 2   | 183 | 6  | 6   | 7   | 3   | 3.2  |
| 5    | Japan      | JPN  | 23 | 188 | 36  | 165 | 73  | 5   | 4  | 17  | 5   | 23.5| 6.2  |
| 6    | Mexico     | MEX  | 131| 115 | 91  | 156 | 9   | 211.5| 17 | 13  | 17  | 1   | 12   |
| 7    | India      | IND  | 31 | 90  | 106 | 164 | 214 | 36  | 8  | 3   | 8   | 8   | 12.2 |
| 8    | Russia     | RUS  | 194| 202 | 141 | 138 | 12  | 123 | 23 | 18  | 4   | 20  | 9.9  |
| 9    | Australia  | AUS  | 209| 127 | 11  | 132 | 10  | 7   | 47 | 9  | 31  | 11.5| 12.2 |
| 10   | Peru       | PER  | 168| 111 | 120 | 119 | 27  | 30  | 2  | 46  | 49  | 7   | 27   |
| 11   | Argentina  | ARG  | 181| 134 | 121 | 149 | 19  | 11  | 21 | 23  | 22  | 16  | 31   |
| 12   | Canada     | CAN  | 204| 141 | 10  | 155 | 133.5| 6  | 19 | 7   | 16  | 71   |
| 13   | Malaysia   | MYR  | 132| 102 | 71  | 131 | 39  | 170 | 16 | 22  | 24  | 10  | 9    |
| 14   | Myanmar    | MMR  | 111| 132 | 167 | 167 | 4   | 18  | 22 | 113 | 102 | 25  | 14   |
| 15   | Ukraine    | UKR  | 103| 208 | 117 | 141 | 201 | 1  | 39 | 36  | 11  | 60   |
| 16   | Thailand   | THA  | 71 | 145 | 96  | 148 | 28  | 28  | 211.5| 9 | 11   | 20  | 29   |
| 17   | Philippines| PHP  | 30 | 70  | 122 | 144 | 22  | 168 | 12 | 27  | 21  | 11.3 | 33   |
| 18   | France     | FRA  | 79 | 172 | 24  | 161 | 210 | 26  | 24 | 9   | 116.5| 16  |
| 19   | South Africa| ZAF | 147| 93  | 72  | 147 | 63  | 43  | 25 | 28  | 19  | 31   |
| 20   | Colombia   | COL  | 146| 102 | 138 | 136 | 43  | 162 | 44 | 30  | 32  | 30   | 35.7 |

Population Growth Rate (FGR) rank, Governance Quality (GOV) rank, Gross National Income (GNI) rank, Natural Forest Loss (NFL) rank, Natural Habitat Conversion (HBC) rank, Marine Captures (MC) rank, Fertilizer Use (FER) rank, Water Pollution (WTP) rank, Threatened Species (THR) rank, and Carbon Emissions (CO2) rank.

This research emphasizes on the looking for the principles of the human rights constitutionalizing to a good and healthy environment as fundamental rights in comparison in several countries, and the constitutionalizing of the principles of human rights to a good and healthy environment at the level of legal dimension.

2. A theoretical and historical correlation on good and healthy environmental rights

Human rights to the environment are qualified as fundamental rights and principally it can be identified using indicators of theoretical and authoritative-historical argumentation (international institution and State). Human rights to the environment is qualified as fundamental rights in principle by using indicators of theoretical argumentation as can be found in legal experts. According to Alexy [6], human rights are institutionalized by means of their transformation into positive law. If this takes place at a level in the hierarchy of the legal system that can be called “constitutional”, human rights become fundamental rights.

Qualify for a human right including human rights to a good and healthy environment as one of fundamental rights, when that right has been institutionalized through a process of transformation into positive law in the constitutional hierarchy. This proposition is visualized in figure 1.
Conceptual relevance (a relation of constitutionalizing and human rights to a good and healthy environment as fundamental rights) presents important legal meanings in addition to the politico-moral impact of assimilating a new fundamental human right of the “third generation”, that of solidarity rights and bearing a significant symbol of modernity and international standing [7]. Primarily, it creates a solid legal-constitutional basis in relation to which all the relevant existing regulations must be interpreted and applied, and the legal documents to be adopted must not contravene to the requirements of the existence and guarantee of this fundamental right. Moreover, this constitutional right will strengthen the duties of public authorities to protect the environment, provides the judge with new means of reclaiming environmental damages and sanctioning damage caused to the environment and enhances the legal basis for correcting excess of power on the part of law-making or administrative authorities.

A formal concept of the philosophy of fundamental rights relating to the essence of fundamental rights as contained in a constitution can be an effective legal instrument for the protection of right violations and a normative reference for understanding fundamental rights as regulated or guaranteed by the constitution. Meanwhile, a substantive concept is related to fundamental rights must be ensured not only that these rights are stated or determined by the constitution, but they can pass it or ensure that the rights determined by the constitution are realized in reality. Different with the concept of procedure, it relates to the fundamental functions in the constitution as a divider or political and legal basis for the democratic process. That is, the fundamental rights become a balance in the cheeks and balance process, especially intended to overcome the problem of human rights transformation into positive law. In this domain, the functions of the court and parliament are strategic. The three concepts are related to each other.

The authors emphasized that when the principle of constitutionalizing is theoretically correlated with the principle of human rights to the environment as one of the fundamental rights, the constitutionalizing of human rights to a good and healthy environment can be interpreted as systemic and comprehensive efforts to incorporate ideas, values or principles of human rights over a good and healthy environment as human rights become constitutional or become part of the principle or material content of the constitution so that ideas, values or principles can be assured of obtaining supreme legal legitimacy degrees and at the same time strong political legitimacy in institutionalization based on three paradigmatic dimensions, i.e. philosophy, politics and law (normative).

In term of the environment with a holistic approach requires attention not only to human beings existentially, but also to nature and all its contents as a whole and their relationship to each other. Therefore, the environment can be referred to as the unity of space (cosmos) with all contents (physical, biological, and cultural elements) and conditions in which humans in an individual as well as social terms become the dominant living beings among all other living things which are one unity of systems that are interdependent. In addition, environmental quality indicators reflect more to use the science approach as the first and last parameter to assess and determine the symptoms related to the environment. It is important to avoid political subjectivity regarding the environment and to standardize assessments that can be generally accepted.
3. Enforcement for a good and healthy environment: Comparison studies

This research has chosen several countries as research object in comparison with Indonesia. The chosen countries are based on ranking indicators of countries that have the highest performance of the healthiest to worst environments in the world. Based on the research of Columbia University Center for the International Earth Science Information Network and Yale University Center for Environmental Law and Policy as released in 2012 which developed an index to highlight the cleanest countries; a total of 140 countries were assessed on 25 parameters including air quality, water, pesticide use, and others. Switzerland is at the top of the list with the Environmental Performance Index (EPI) of 95.5 on a scale of 100. The selected countries are Switzerland, Latvia and Norway as countries in 1 – 3 rank respectively with the most high-quality environmental performance [8].

In addition, this research also selected one country that categorized as a country with a worst performance in the world, namely India. The four countries are expected to obtain a logical correlation between environmental performance and the issue of this research variable in which constitutionalizing as a central issue. It is different, with the constitutional indicators of the countries in the world which have the most complete qualification material on the environment (green constitution). In this indicator, Ecuador is chosen which according to a number of constitutes the most complete constitution containing matters relating to the environment.

3.1. Switzerland

Switzerland is a country located in central Western Europe. It was surrounded by Austria, France, Germany, Italy and Liechtenstein. The country is a mountainous country with a peak height of 4.634 meters Alpine arc. About 25 percent of the total area of 41,000 km² is an agricultural area, 14 percent is grassland, and 32 percent is forest. Meanwhile, buildings and infrastructure are only 6.5 percent. The mineral and energy resources of this country are smaller than water resources. The population of Switzerland is around 7 million, from 4.6 million Switzerland peoples. Population density in habitable areas is 350 people per km² which is equivalent to the most densely populated OECD countries [9].

In the statutory under the constitution, the Switzerland’s government makes environmental protection as a top priority for policy. This can be seen in the identification of Perrez [10] that the protection of the environment as the natural base of all living and human activity is a priority of Switzerland’s policy. In the light of the complex and far reaching international interdependencies, effective measures to solve environmental challenges and prevent environmental destruction require international cooperation and co-ordination. Switzerland is therefore actively pursuing a policy to strengthen the international environmental regime, and it has a strong interest to respect and implement the rules and principles established by international environmental agreements (figure 2).

| Level of Aggregation                  | Performance Score | Performance Score with Trend Shading | Pilot Trend Results Score (0 to 10) | Rank |
|--------------------------------------|-------------------|--------------------------------------|-------------------------------------|------|
| Environmental Performance Index      | 96.7              | 1                                    | 24                                 | 88   |
| Environmental Health                 | 93.2              | 29                                   | 48                                 | 109  |
| Air (Effects on Human Health)        | 100.0             | 1                                    | 0.0                                | 73   |
| Environmental Burden of Disease      | 68.4              | 39                                   | 0.0                                | 73   |
| Water (Effects on Human Health)      | 100.0             | 1                                    | 0.0                                | 84   |
| Ecosystem Vitality                   | 88.6              | 3                                    | 0.0                                | 84   |
| Agriculture                          | 33.4              | 109                                  | 0.0                                | 84   |
| Air (Ecosystem Effects)              | 72.6              | 2                                    | 0.0                                | 84   |
| Biodiversity and Habitat             | 90.1              | 15                                   | 0.0                                | 73   |
| Climate Change                       | 56.2              | 44                                   | 0.0                                | 73   |
| Fisheries                            | 56.2              | 44                                   | 0.0                                | 73   |
| Forests                              | 78.5              | 73                                   | 0.0                                | 73   |
| Water Resources (Ecosystem Effects)  | 50.8              | 17                                   | 0.0                                | 84   |

Figure 2. Switzerland’s environmental performance [11]
3.2. Ecuador

The Republic of Ecuador is a country in northwestern South America, bordering Colombia in the north, Peru in the east and south, and Pacific Ocean in the west. It also includes the Galapagos Islands (Nusantara Colón) in the Pacific, about 965 km west of the main island, Ecuador is located on the equator (Ecuador is Spanish for “equator”) and has an area of 272,045 km².

In constitution, Ecuador is a unitary state and adopts a direct democratic system to elect legislative, executive and judicial members. The term of the President, Vice-President and members of Congress is 4 years. The President and Vice-President cannot be re-elected directly. Members of congress are representatives from all provinces in Ecuador (two members per province) and 1 member to represent every 150,000 or more residents. Ecuadorian politics is divided into a system of presidents and representative democracy. The President of Ecuador as head of a republic and head of government where multiparty systems were applied. Executive power acts as a government. Judicial power was formed by the government and the Ecuador National Congress [12].

Nowadays, the most recent Green Constitution is the Ecuador Constitution which was ratified on 10 April 2008. This constitution is valid after obtaining popular approval through a referendum. Voting took place on Sunday, 20 September 2008, and the results were very far behind, with only 23% opposing and 56% agreeing. Different from the other green constitutions of other countries, this Ecuador constitution changes the environmental paradigm from object to subject of human rights, so that the environment can be seen as a separate legal subject structure beside human subject.

The definition of the environment as a separate human rights and constitutional structure is reflected in the Ecuador constitution which was ratified in September 2008. This constitution was the first to affirm the existence of natural rights as subjects in human life in the context of a constitutional state. In Title II about Fundamental Rights, Article of Rights Entitlement, stated, “Persons and people have the fundamental rights guaranteed in this Constitution and in the International human rights instruments. Nature is subject to those rights given by this Constitution and Law”. Therefore, this Ecuadorian model is called “structural constitutionalizing”. Furthermore, in the Chapter of Rights of Nature, Article 1:

Nature or Pachamama, where life is reproduced and exists, has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution. Every person, people, community or nationality, will be able to demand the recognitions of rights for nature before the public organisms. The application and interpretation of these rights will follow the related principles established in the Constitution.

Pachamama or nature, where life is reproduced and exists, also has its own human rights, in addition to human rights. Every person, society, or nation needs recognition of its rights to nature before the law and government. Nature is seen as having the right to recovery or restoration that is integral that is separate from the obligations of a person or legal entity or state to guarantee the loss of people or groups of people who depend on their ecosystem. In the case of permanent impacts of natural damage, including those caused by exploitation of non-renewable resources, the State must determine the most efficient mechanism for restoration. For this reason, the State must implement appropriate measures to eliminate or mitigate adverse effects on the environment.

The State is required to encourage everyone, collective associations, and legal entities to protect nature. It must promote an attitude of respect to all elements in a unity of our ecosystem. It must take careful steps and impose restrictions on all activities that can lead to the destruction of species, ecosystems, or cause permanent changes to the natural cycle. Every person, society, community and nation has the right to benefit from nature and foster the wealth of nature for life together. Nature around us must not be damaged and reduced it carrying capacity and function for life together. Therefore, the production, utilization and exploitation of the environment must be properly regulated by the State (figure 3).
By the formulation of provisions starting from the Article on Rights Entitlement and the Rights of Nature as mentioned above, it can be said that this Ecuador constitution is a first constitution in the world that is truly green. Provisions regarding the rights of the natural environment adopted in the provisions of the Ecuadorian constitution are no longer sticker and putting nature as a supplement in relation to humans, but instead putting nature as the subject of constitutional rights. Many groups call this Ecuadorian Constitution as the first green constitution and truly green. Hence, after the Ecuador constitution was ratified by Ecuador’s Constitutional Assembly on 10 April 2008, there were many enthusiastic responses from various groups, especially environmental activists around the world even a few months later. The Los Angeles Times wrote an editorial on September 2, 2008 entitled “Putting Nature in Ecuador’s Constitution” [13].

The content of the Ecuadorian constitution as mentioned that the principle of human rights constitutionalizing over the environment can be called a constitution that fulfills: Firstly, the principle of recognition; the State is obliged to fully recognize human rights in its constitution, its legal regulations and its policies. Secondly, the principle of respect; the State is obliged to avoid all activities and measures that threaten or disrupt the full realization of all human rights.

As result, in this segment presented the constitutionalizing of the environment as fundamental rights in 189 countries in the world with a number of categories. For 198 constitutions, 142 contain references of at least 1 environmental content material, and 56 does not contain at all. For 142 national constitutions whose refer to the environment there are 125 which directly contain human rights to the environment which at least 1 phrase and 10 whose refer to human rights to water directly [14].

3.3. Category 1- Commitment of state duties
It indicates that the constitution contains keywords or phrases relating to the State’s duties, obligations and forms of protection against the environment and so on. This category is found in 27 constitutions. For example:

Afghanistan (2004)
Article 15:
The State is obliged to adopt necessary measures for safeguarding forests and the environment

Turkey (1982)
Article 56:
It is the duty of the state and citizens to improve the natural environment, and to prevent environmental pollution.

3.4. Category 2 - State objectives
It indicates that the constitution generally contains a weaker language against human rights over the environment but it is related to the State obligations. It uses such as shall and ensure and take measures, must see to, and fundamental objective. This category is found in 82 constitutions. For example:

Angola (1992)
Article 12, Section 2:
The State shall promote the protection and conservation of natural resources guiding the exploitation and use thereof for the benefit of the community as a whole.

Kazakhstan (1995)
Article 31, Section 1:
The state shall set an objective to protect the environment favorable for the life and health of the person.

Poland (1997)
Article 5
The Republic of Poland shall safeguard the independence and integrity of its territory and ensure the freedoms and rights of persons and citizens, the security of the citizens, safeguard the national heritage and shall ensure the protection of the natural environment pursuant to the principles of sustainable development.

3.5. Category 3 - Right to information
It indicates that the constitution generally contains language relating to the population rights to information about the status of the environment and gives openness to obtaining information. This category is found in 16 constitutions. For example:

Georgia (1995)
Article 37, Section 5:
A person shall have the right to receive complete, objective and timely information as to a state of his/her working and living environment.

Moldova (1994)
Article 37, Section 2:
The State guarantees every citizen the right of free access to truthful information regarding the state of the natural environment, the living and working conditions, and the quality of food products and household appliances.

Poland (1997)
Article 74, Section 3:
Everyone shall have the right to be informed of the quality of the environment and its protection.

3.6. Category 4 - Right to a healthy environment
It indicates explicitly contains population’s rights to a good and healthy environment. The language used is generally strong which includes not only the right to a good and healthy environment but also to safety, health and the natural environment (cosmos). This category is found in 61 constitutions. For example:
Russia (1993)
Article 42:
Everyone shall have the right to a favorable environment, reliable information about its condition and to compensation for the damage caused to his or her health or property by ecological violations.

Ukraine (1996)
Article 50, Section 3:
Everyone has the right to an environment that is safe for life and health, and to compensation for damages indicted through the violation of this right. Everyone is guaranteed the right of free access to information about the environmental situation, the quality of food and consumer goods, and also the right to disseminate such information. No one shall make such information secret.

3.7. Category 5 - Future generations
This category refers to the concern for future generations in which explicitly are part of human rights to the environment. The main keywords used are future, generation, and sustainable development. This category is found in 36 constitutions. For example:

Albania (1998)
Article 59, Section 1, Subsection E:
The state, within its constitutional powers and the means at its disposal, aims to supplement private initiative and responsibility with: a healthy and ecologically adequate environment for the present and future generations.

Qatar (1993)
Article 33:
The State shall preserve the environment and its natural balance in order to achieve comprehensive and sustainable development for all generations.

3.8. Category 6 – A general duty to respect
This category refers to general duties. It includes the duties of citizens who commonly use the phrase/word “everyone to respect, to fight for, and preserve the environment or nature. This category is found in 59 constitutions. For example:

Estonia (1992)
Article 53:
Everyone has a duty to preserve the human and natural environment and to compensate for damage caused to the environment by him or her. The procedure for compensation shall be provided by law.

Kyrgyzstan (2007)
Article 48, Section 3:
Everyone must take care of the environment, and fauna.

3.9. Category 7 - Right to water
This category is found in 10 constitutions that specifically specify human rights to water. For example:

Ecuador (2008)
Section 2.15:
Energy sovereignty will not be achieved at the expense of food sovereignty, nor affect the right to water. Article 67, Section 2: The right to a dignified life, to ensure the health, food and nutrition, drinking water, housing, sanitation, education, labor, employment, and leisure.
Ethiopia (1998)
Article 90:
*Every Ethiopian is entitled, within the limits*

Uganda (1995)
Article 27b:
The State shall endeavor to fulfill the fundamental rights of all Ugandans to social justice and economic development and shall, in particular, ensure that... all Ugandans enjoy rights and opportunities and access to education health services, clean and safe water, decent shelter, adequate clothing, food, security and pension and retirements benefits.

Uruguay (1967)
Article 47:
The protection of the environment is of general interest. People should refrain from any act causing depredation, destruction or serious environmental pollution. Law shall regulate this provision and may provide penalties for violators. Water is a natural resource essential to life. Access to safe water and access to sanitation are basic human rights.

Zambia (1998)
Article 112:
The state shall endeavor to provide clean and safe water.

4. Conclusion
The constitutionalizing of the principle of human rights to a good and healthy environment as fundamental rights on the philosophical, political and legal dimensions is a necessity for a modern State. It will not be comprehensive to realize a universal environmental when it is not implemented by these three dimensions. In this context, the findings of research are reconstructed by a modern constitution based and oriented towards a universal environmental order. In Indonesia, it was found to have never implemented the three fundamental rights dimensions and the principle of constitutionalizing itself throughout the experience of our constitutional, except only in the form of incorporate the human rights to a good and healthy environment.

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