

GAIA AND EARTH JUSTICE: Earth as a Natureculture for 'Harmony with Nature'

Ji-Yeon Im and Yunho Seo♦

Abstract: The purpose of this paper is to explore the possibility of a sustainable earth of the UN SDGs Planet agenda through Gaia theory, and to criticize and supplement the theoretical foundation of earth jurisprudence from the secularized Gaia perspective. The ethical direction of earth justice for 'Harmony with Nature' can be found through the combination of Gaia theory and earth jurisprudence. The ethical and practical implications of the Gaia theory and earth jurisprudence for 'Harmony with Nature' are as follows. First, the Gaia theory aims to secularize the concept of a divine Mother Earth. Second, Gaia has a naturecultural perspective that integrates humans and non-humans beyond the dichotomy between nature and culture. Third, earth jurisprudence based on the secularized Gaia can properly realize earth justice that recognizes the rights of nature.

Keywords: Earth, Earth Jurisprudence, Earth Justice, Mother Earth, Gaia Theory, Harmony with Nature, Natureculture.

1. Introduction: Apocalyptic Rhetoric as a Crisis Discourse

Among the 17 sustainable development goals of the UN, the Planet agenda aims for a sustainable recovery of earth through sustainable consumption and production and taking urgent action on climate change. The Planet agenda is again defined in target 12.8 of SDGs as a form of 'Harmony with Nature'. In that regard, humanity is asked to raise awareness of the earth in order to recover from a desolated planet to a sustainable planet. This is because if humankind does not

♦**Dr Ji-Yeon Im** is an Assistant Professor in the Institute of Body & Culture at Konkuk University, Seoul, Korea. Email: idam@konkuk.ac.kr. **Dr Yunho Seo** (corresponding author) is a Research Professor in the same Institute. Email: nuri0022@gmail.com. This paper was supported by the KU Research Professor Program of Konkuk University / by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2020S1A5B8097404).

properly reflect on the existing concept of the earth objectified as a resource, not only will humankind not have a new lifestyle for the earth, but they will also be in danger of missetting the direction of the earth's recovery.

The UN General Assembly designated April 22 as 'International Mother Earth Day.' The UN recognized earth as 'Mother Earth' and proposed a new paradigm of 'Harmony with Nature,' which is based on a new relationship between human and nature.¹ It has positive implications in that the definition of the environment is not only a human interest, but also in that it contains a non-anthropocentric perspective. Still, the concept of Mother Earth is not immune from the question of sanctifying earth. The purpose of this paper is to give shape to the ecological ethics of 'Harmony with Nature' by considering Gaia theory and earth jurisprudence. The Gaia theory, which understands the earth as a self-regulation system operated by the cooperation of humans and non-humans, can provide a guideline for overcoming the concept of nature separated from humans as Mother Nature.

The composition of this paper is as follows. First of all, we will look specifically at what Gaia theory is. Following a review of James Lovelock's Gaia theory, which understands the earth as a self-regulation system with living and non-living beings, we will examine Bruno Latour's secularized Gaia concept. In addition, we will look at what conclusions can be drawn regarding Harmony with Nature by connecting Gaia's theory with Donna J. Haraway's concept of natureculture. Furthermore, this paper examines the earth jurisprudence as a legal practice of Gaia politics. The theoretical foundation of earth jurisprudence is reviewed critically to realize earth justice, sustainable earth, and Harmony with Nature. Earth justice for sustainable earth can only be realized in the direction on the basis of the secularized Gaia as a natureculture, where the relationship between humans and non-humans is recognized equally in their rights.

¹"We recognize that planet Earth and its ecosystems are our home and that 'Mother Earth' is a common expression in a number of countries and regions, and we note that some countries recognize the rights of nature in the context of the promotion of sustainable development (UN, *Harmony with Nature*, Programme)."

2. Rediscovering Gaia and Earth as a Natureculture

2.1. Gaia Theory and Natureculture

The earth is often understood as a resource for building human civilization, a benevolent mother goddess protecting lives, and regarded it as a sanctified absoluteness separated from humans. UN's recent 'Harmony with Nature' paradigm seeks a harmonious relationship between earth and humans. Paradoxically, however, the perception of earth as Mother Earth is anthropocentric as well as it sanctifies nature. We need to de-sanctify earth and derive an ethical perspective of coexistence with non-humans.

In the 1970s, James Lovelock and Lynn Margulis were looking at earth from the perspective of a component part of the biosphere rather than as a mere environment for life (Lovelock and Margulis 2). They identified Gaia as a biosphere in which living and non-living beings cooperate. Gaia theory has been criticized as an unscientific and metaphorical hypothesis due to the name of the goddess called Gaia and its idea of a living earth.² Through the controversy over 'whether Gaia theory is science or mythology', Gaia was admitted from a hypothesis to a theory (Go 159-160).

Lovelock defines Gaia as an elaborate and complex self-regulation system in which living and non-living organisms actively interact (Lovelock 44). We can identify three characteristics of Lovelock's Gaia theory. First, Gaia is a huge self-regulation system. Lovelock defined life from the perspective of cybernetics. The word 'cybernetics' (from the Greek word *kubernetes*, meaning steersman) describes that branch of study which is concerned with self-regulation systems of communication and control in living organisms and machines (44). According to Lovelock, if living organisms were to live on Mars, the excrement of living organisms would affect the atmosphere. However, the ratio of atmospheric composition of Mars, which has no living organisms, and the atmosphere of earth, where living organisms live, is clearly different. The world of chemical equilibrium where living organisms do not live has no nitrogen and oxygen, whereas the earth has the highest ratio of nitrogen and oxygen. This atmospheric condition is designed at a strange rate to make it easier for living organisms to live in.

²For one prime example, Richard Dawkins criticized Gaia theory as 'bad poetic science' (Dawkins 332-335).

Lovelock regarded that such an environment was created because of the interrelated activities of living organisms (32-37). The composition of earth atmosphere is cybernetical.

Second, Gaia has homeostasis and purpose. Gaia activates a self-regulation system in order that the earth maintains its homeostasis. The atmosphere and earth's crust, and living and non-living organisms interact in order that the ratio of carbon dioxide, nitrogen, oxygen, and argon remain constant in earth's atmospheric composition. Lovelock evaluates that Gaia has been pursuing the best temperature control mechanism, and as a result, it has the current elaborate system (52). This is because of the unintended purpose of creating an environment suitable for living organisms. Gaia's objective is to create an environment 'favourable' for the survival of living organisms even under changing external conditions (119). Lynn Margulis used the term 'autopoiesis' instead of a self-regulation system (Margulis and Sagan 34). Luciano Onori and Guido Visconti have positively evaluated this concept of Margulis in relation to the cognitive concept of Francisco J. Varela (Onori and Visconti 380-381). It can be said that Margulis' perspective differs from Lovelock's in that it emphasizes the evolution and autonomy of earth.

Third, Gaia has earthly perspective. Lovelock recognizes the living organism that played the most important role in Gaia as microorganisms. He recognizes that microorganisms have been responsible for the greatest number and their role in life activities on a planetary scale (Lovelock 36-37, 106). Gaia is geocentric, this means it is anti-anthropocentric. Because humans are one of several species in Gaia and are not very old in earth's history. Gaia's anti-anthropocentrism makes sense in terms of equalizing the relationship between humans and non-humans. Anthropocentrism hinders getting to know Gaia because humans regard themselves as the owners of earth. It is because they are ignorant of billions of years of earth's history, the communication system of ants, and the viral activity of viruses.

Gaia prevents the earth from being described as just nature. As we have seen the characteristics of Gaia, Gaia is not a law of nature or a material resource separated from humans. Gaia can be defined as a non-anthropocentric 'living' self-regulation system. Gaia theory provides a new perspective that can create a rupture in existing

concepts of nature and culture. The binary structure of nature and culture, lives and substances can be dismantled through Gaia theory. Gaia does not allow an independent composition of nature or culture. This is because culture cannot be the realm of humans and nature cannot be the realm of non-humans. If the ratio of atmospheric composition of earth optimized for living organisms is the result of the activity of microorganisms in the seabed and wetlands gases, and the control action of numerous beings, it does not make sense to distinguish human culture from a Gaia perspective.

The philosopher who strongly criticizes the dichotomous perspective of separating nature from culture is Donna J. Haraway, who uses the term 'natureculture', and pays attention to the relationship between nature and culture. It should be noted that it is 'natureculture', not 'nature and culture', or 'nature-culture'. Nature is not objectified as a resource for human culture, and human culture cannot exist without nature. In this way, Haraway emphasizes that nature and culture are an inseparable mutual relationship (Haraway 129). Haraway thinks that all beings do not exist prior to the relationship and criticizes both biological and cultural determinism as wrong composition method. It can be attributed to misunderstanding of tentative and abstract categories, such as nature or culture, and misunderstanding as the basis for leading to potential consequences. Therefore, Haraway argues that there is no single source or ultimate purpose, such as nature or culture (123). In that respect, Gaia does not offer a separation between nature and culture; the naturecultural perspective, however, integrates both. Gaia as naturculture transforms the existing perspective in which the relationship between humans and nature was hierarchical. The term 'natureculture' offers the possibility of non-hierarchical Gaia politics.³

³Margulis' Holarchy concept and Latour's Heterarchy concept are also non-hierarchical like Gaia as natureculture. Holarchy refers to a system of coexistence of individuals that are both whole and part (Margulis and Sagan 25). Latour uses the concept of heterarchy in contrast to the concept of hierarchy, which means vertical order (Lenton and Latour 1067).

2.2. Secularization and Rediscovery of Gaia

Latour rediscovers Gaia from the perspective of secularization. If Lovelock has made a radical turn from the modern concept of earth as nature or environment to living Gaia, Latour would take over Lovelock's Gaia and try to secularize and further politicize it. As we have seen earlier, Lovelock de-sanctified the earth from a cybernetics point of view. Nevertheless, he gave the earth as a self-regulation system the name of the Greek goddess with the word 'living'. This is one of the reasons why Gaia has long been misunderstood as a goddess, a superorganism and a benevolent Mother Earth. Paying attention to this point, Latour aims to develop the Gaia theory in line with the anthropocene era⁴ with the goal of secularizing and politicizing Gaia. He tried to replace the existing Gaia into a secularized Gaia and labelled it as 'Gaia 2.0'. Three characteristics are identified in Latour's secularized Gaia: it is not maternal, has no designer, and is related to Gaia politics.

First, secularized Gaia is not maternal (Latour 82). Gaia, which Latour pays attention to, is a force of the pre-gods era, dangerous and violent. The image of Mother Earth is not Gaia-like. If motherhood is not defined differently, Gaia cannot bear an image of a benevolent mother who gives birth and raises children with love. It means that Gaia is in an ambiguous and complex network of meanings. Latour defines Gaia as a cruel stepmother, indifferent or distant relationship rather than a mother raising children (288). Hence, he even affirmed that Gaia is not a figure of harmony (82). For Latour, Gaia is neither nature nor the concept of nature in a more harmonious relationship. The work of de-motherizing and de-sanctifying Gaia is to dispel the worshiping attitude toward nature. This allows us to make Gaia politics possible and become citizens of Gaia, where humans and non-humans are respected non-hierarchically and symmetrically.

Second, Gaia has no designer. From a modern point of view, nature is usually understood to be governed by laws. In other words, nature and law are closely connected. However, Latour argues that Gaia is not a being bound by the law and has neither a designer, nor

⁴The 'anthropocene' refers to a new geological epoch in which humans emerge as geological forces powerful enough to change nature and the earth (Crutzen and Stoermer 17-18).

an engineer, nor a divine clockmaker (96). Latour focuses on the Earth, which is not fixed, but changing according to the situation. Latour is constantly wary of the solid and fixed attitude towards Gaia and nature. He once likened Gaia to an opera that is constantly spontaneous and has no end, no rehearsal and no score (107). However, in his *Facing Gaia*, Latour defines the present as an apocalyptic state and takes a somewhat pessimistic position (Kim 260). This is because he considers that the anthropocene era is not in a state of peace, but in a state of war for the territory. Latour's argument opens up the possibility of objectively understanding and solving earthly problems such as the extreme climate crisis, water shortage, and biodiversity extinction that humanity is currently facing.

Third, Latour emphasized Gaia politics in '*Gaia 2.0*' (Lenton and Latour 1067-1068). Latour's Gaia politics refers to all practical activities carried out by humans and non-human actors so that the damaged Gaia's self-regulation system can function well. In the anthropocene era, Gaia as a self-regulation system is malfunctioning. Because Gaia's self-regulation on climate is quite rough, it is difficult to deal sensitively with the anthropocene crisis. Latour defined Gaia 2.0 as a radically new state (1066). It pre-empted the vision of the future earth as an improved state in which Gaia's circular economy works well. He expects that Gaia 2.0 will be an effective framework for cultivating a sustainable planet, and suggests solidarity and efforts of human society in cooperation with non-human actors (1067).⁵ He suggests ways to improve the sensors that can slow it down in order to find an optimal solution to the climate crisis in the political field. He says that the scientific establishment will play a crucial role in multiplying the sensors, improving their qualities, speeding the dissemination of their results, improving models, and proposing alternative explanations to phenomena. Such an infrastructure cannot, however, be limited to scientists. They must collaborate with citizens, activists, and politicians to quickly realize

⁵Latour argues that it is necessary to accelerate sustainable resource circulation by supporting a network of human actors, even for the UN's SDGs proposing sustainable energy (solar energy, renewable energy). In particular, he emphasizes that human society should self-regulate on the basis of self-awareness, keeping in mind the UN 17 SDGs.

where things are going wrong (1068). Latour urges the role of human actors in Gaia politics, but at the same time always presupposes the role and collaboration of sensors as non-human actors. So far, we have looked at the characteristics of Latour's Gaia concept. Latour seeks the possibility of Gaia politics that emphasizes the role and collaboration of human and non-human actors by developing Lovelock's Gaia theory in a secularized way.

Lovelock and Latour's Gaia theory provides a shift in perspective to the existing concept of earth, i.e. the concept of the nature as a resource for human culture, a pure nature separated from humans, and a mother goddess to give birth to and nurture all life, which was built in the dichotomous thinking that separates humans from nature. Gaia theory breaks away from this dichotomy and presents an integrated perspective of Gaia as a 'natureculture'.

The task of Gaia's theory today is how to secularize and politicize such an existing concept of the earth. In this respect, Lovelock's concept of self-regulated Gaia and Latour's concept of secularized Gaia provide us a new political perspective. In particular, Gaia as a natureculture can present an earthly perspective and ethics for realizing the SDGs Planet agenda and the Harmony with Nature paradigms. Nevertheless, Gaia politics requires more realistic and concrete human practices and efforts. The mission and task given to us is to ensure an understanding of earth as a natureculture for Gaia politics, to realize the rights of nature, and to find practical ways to realize earth justice based on the relationship between humans and non-humans.

3. Earth Jurisprudence as a Legal Practice of Gaia Politics

3.1. Theoretical Foundation of Earth Jurisprudence

Secularized Gaia politics results in the question of earth justice. In response to this question, it is necessary to examine recent UN's earth jurisprudence movement. As a leading governance organization in the international community, the UN has long been active in environmental activities.⁶ At present, the UN has clearly

⁶ Representative environmental activities of the UN include the Stockholm Declaration of the United Nations Conference on the Human Environment in 1972 and the Rio Declaration on Environment and Development in 1992. From the perspective of earth jurisprudence,

clarified 'Harmony with Nature' under SDGs. The shift from a human-centred to an earth-centred or non-anthropocentric world view and the resulting changes in law and policy is progressing with the strong commitment of members of the Harmony with Nature Knowledge Network. Its members are working to ensure that people everywhere have the relevant information on and awareness of sustainable development and lifestyles in Harmony with Nature, as stated in target 12.8 of SDGs. Earth jurisprudence is also being conducted as a part of it.

At the UN General Assembly in 2015, the term 'earth jurisprudence' first appeared in official UN documents.⁷ The General Assembly adopted its seventh resolution (A/RES/70/208) on Harmony with Nature to initiate, in 2016, a virtual dialogue on Harmony with Nature among experts on earth jurisprudence worldwide,

... to inspire citizens and societies to reconsider how they interact with the natural world in order to implement the Sustainable Development Goals in Harmony with Nature. The Assembly noted that some countries recognize the rights of nature in the context of the promotion of sustainable development and requested that the experts submit a summary to the Assembly at its seventy-first session and that the virtual dialogue be hosted on the Harmony with Nature website (UN General Assembly 1).

In accordance with this resolution, an interactive dialogue on the subject of earth jurisprudence was held on the website for two months from Earth Day on April 22, 2016 to June 22, 2016. In its Summary, the philosophy of earth jurisprudence can be formulated under four main

neither the Stockholm Declaration nor the Rio Declaration could make much progress from an anthropocentric perspective. It is said that humans should cooperate with nature, however, the environment remains strictly an object for humans. Nevertheless, it is meaningful that the Rio Declaration established the principle of governance of 'sustainable development' and prepared a beachhead of earth jurisprudence by strengthening the position of 'Harmony with Nature'.

⁷ 'Earth jurisprudence' refers to a philosophy of law and human governance in which humans are only one part of a wider community of beings and the well-being of each member of that community is dependent on the well-being of the earth as a whole.

principles as follows:

1) subjectivity: the Universe is a holism, with values and rights; 2) community: everything is related and coexists with everything else; 3) lawfulness and order: there are organizing patterns in the Universe and in the Earth community that we can detect and understand; and 4) wildness: the order and lawfulness in the Universe remains dynamic, mysterious and unpredictable (4).

Earth jurisprudence is an approach that underscores the urgency of reconstructing civilization on ecological principles of sustainability and collaborative relationships with the natural world. It is Thomas Berry's philosophical thought that provides the theoretical basis for the earth jurisprudence claiming the rights of nature (Berry 17). Berry saw that the cenozoic era, the current geological age when human civilization is in full bloom on earth, is ending due to causes that humans are responsible for, such as mass extinction (16). He argued that opening an ecozoic era, the geological age of the future in which humans and the earth form a harmonious relationship, is our responsibility and the only path to a sustainable future (10). The new ecozoic era should be designed based on geocentricism, not anthropocentricism in the era of industrial civilization. Berry's insights into a sustainable future are still very important, although we are today entering the era of the fourth industrial revolution and the anthropocene.

Berry presented principles of earth jurisprudence at the 2001 Airlie Conference hosted by the Gaia Foundation.⁸ Berry's core arguments that make up the foundation of earth jurisprudence are as follows. Berry insists that the rights occur where the being originates, that is, determining the beings means determining the rights. According to Berry, the universe is a communion of subjects rather than a collection of objects. Therefore, all members of the universe as subjects can have rights. Based on this, Berry says that all members of the earth community have three fundamental rights: the right to be, the right to habitat, and the right to fulfil its role in the ever-renewing process of the earth community. As such, Berry's arguments on earth jurisprudence is discussed in relation to 'great

⁸Berry presented 10 theses as principles of earth jurisprudence. It is available at <<https://www.gaiafoundation.org/what-we-do/story-of-origin-growing-an-earth-jurisprudence-movement/>>

jurisprudence.⁹ Berry argues that since it is ultimately the universe where existence originates and determines its existence, hence the existence and law of the emergent universe are the supreme law and that human law needs to be adapted to them (114-115).

Based on Berry's philosophical thought, Cormac Cullinan proposes a basic framework of earth jurisprudence that overturns the existing legal paradigm in his book *'Wild Law'* and newly interprets the rights of earth and nature.¹⁰ This is a point important in the light of SDGs. As Berry's philosophical thoughts were organized by Cullinan from the perspective of a lawyer, the activities of earth jurisprudence, led by lawyers at the United Nations and elsewhere, began in earnest (UN General Assembly 8-9). Earth jurisprudence today is also having a great influence on the recent international movement to criticize the human-centred thinking of rights and actively recognize the rights of nature. Earth jurisprudence recognizes that the earth is the source of laws that govern life. It provides a cohesive framework that underpins many disciplines weaving them together to create a more effective, holistic governance approach, one that reflects the integrated nature of the world in which we live. Earth jurisprudence inspires citizens and societies to reconsider how they interact with the natural world.

3.2. Criticism of Earth Jurisprudence and Rights of Nature

In the face of today's Anthropocene era, the importance of earth jurisprudence is increasing more and more. Earth jurisprudence must certainly play a huge role in deviating from human-centred legal thinking and suggesting new normative standards in establishing relationships between humans and non-humans. However, there are some points to be refined on its theoretical basis. Here, in relation to the discussions of secularized Gaia, natureculture,

⁹The 'great jurisprudence' sees the universe as an ordered and lawful entity with its own integrity. From this point of view, the universe is a great family, towards which the human race, because of its intelligence, inventiveness and creative and destructive power, owes a duty of care (Burdon 64).

¹⁰ Cormac Cullinan explains the conventional conceptual contradiction of the terms 'law' and 'wild'. He emphasizes that what we have to overcome is the erroneous strict dichotomy between wild and law, and also between nature and civilization (Cullinan 52).

and Gaia politics we will look at how earth jurisprudence as its legal practice can function properly in the Anthropocene era, and the possibility of future development of earth jurisprudence.

The first criticism on earth jurisprudence can be found in the limitations of Berry's philosophical thought which provides its theoretical basis. Berry develops his ideas from a cosmological perspective with his religious faith.¹¹ Thus, we are in trouble with the religious assumptions that he accepts uncritically, as Berry declares that the universe, earth, and humans are united to each other and immediately from the earth community all members of the earth have equal rights. Of course, there may be some people like spiritual ecologists who easily accept these religious assumptions without problems. Nevertheless, for post-metaphysicists today this still remains as a theoretical dissatisfaction. In order for earth jurisprudence to get more response in the international community, it will be helpful for the future development of earth jurisprudence to reinforce the theoretical foundation based on the secularized Gaia theory of Lovelock and Latour rather than based on a cosmic theological grand theory such as the great jurisprudence proposed by Berry.

The second criticism that can be applied on earth jurisprudence is that the basic thought of earth jurisprudence which is currently being developed is based on Mother Earth. As mentioned earlier, the thought of Mother Earth presupposes the sanctity of nature. About this point, it is necessary to contain criticism that nature and earth no longer have motherhood or sanctity in Lovelock and Latour's secularized Gaia. The earth jurisprudence to be developed in the future needs to identify earth from the perspective of the secularized Gaia that Latour argues and seeks the feasibility of earth jurisprudence from this understanding of earth. To this end, it will be helpful to solve normative problems from the position of Haraway who insists on 'natureculture' for future development of earth jurisprudence. The perspective of the secularized Gaia as a natureculture can provide an important theoretical basis for

¹¹Berry was a catholic priest, who followed Teilhard de Chardin, another catholic priest, in his thoughts. His views were infused with his religious faith, which is reflected in the *Laudato Si* of Pope Francis. This point has room for criticism in relation to the secularized Gaia.

justifying the rights of nature beyond the dichotomy between nature and culture, non-humans and humans.

The third criticism that can be applied to earth jurisprudence is connected with the perspective of the Anthropocene era. The earth jurisprudence that Berry argues is being developed from the perspective of ecozoic era rather than an awareness of the problem of the Anthropocene era. Although earth jurisprudence is proclaiming a shift from anthropocentrism to geocentricism (Kang 10), it creates a paradox that emphasizes human responsibility and role in the ecozoic era. It is necessary for earth jurisprudence in the Anthropocene era to properly recognize the rights of nature in the non-hierarchical relationship between humans and nature rather than emphasizing the responsibilities and roles of humans. Harmony with Nature as earth justice in the Anthropocene era should thoroughly maintain its criticism of anthropocentric legal thinking. This results in the issue of mutual recognition of rights between humans and non-humans. Its core depends on how we recognize the rights of nature (Seo 208).

Whether the nature have rights is a question that poses a major challenge to anthropocentric legal thinking and the future development of earth jurisprudence. The recognition of the rights of nature which consists of an important part of earth jurisprudence has been on the rise in recent years. Cases such as the parliamentary legislation for recognizing the rights of the Whanganui River in New Zealand in 2017 are gradually increasing. Nonetheless, there are still tasks to be resolved over how to justify the rights of nature.¹² Earth jurisprudence in the future should solve this problem seriously. The earth jurisprudence movement that the UN is developing internationally has positive implications for realizing earth justice. However, since its philosophical foundation currently being claimed is based on cosmological metaphysics and the sanctity of nature, there is a limitation in realizing Harmony with Nature in the Anthropocene era. For sustainable development of earth jurisprudence as a legal practice of secularized Gaia politics,

¹²The first paper academically advocating for the rights of nature was Christopher Stone's 'Trees paper'. Stone did not recognize the moral rights of so-called natural objects, such as forests, oceans, rivers, but recognized their legal rights (Stone 456).

foundations of legal theory that can justify the whole range of rights of non-humans and an understanding of earth as a natureculture are required. It could be argued that 'Harmony with Nature' is possible only with such a vision that we need to drop human superiority. Earth justice, in which Harmony with Nature, SDGs, and earth jurisprudence closely linked to each other, can only be progressed in the direction on the basis of the secularized Gaia as a natureculture, where the relationship between humans and non-humans is recognized equally in their rights and at the same time takes the symbiotic ethics between humans and non-humans seriously.

4. Conclusion

This paper attempted to find the possibility of a sustainable earth presented in the UN SDGs from Gaia's point of view. Lovelock defines Gaia as a self-regulation system, and Latour pursues Gaia politics by developing Lovelock's Gaia from the point of view of secularization. Gaia theory is in the same context as Haraway's concept of natureculture in that it integrates humans and nature. Then, how can Gaia as a natureculture implement the UN SDGs Planet agenda in reality? The theoretical foundation of earth jurisprudence that seeks Harmony with Nature needs to be supplemented from the perspective of secularized Gaia. This paper proposes the Gaia theory as a form of earthly knowledge that can complement and realize the UN SDGs Planet agenda. The ethical and practical implications of Gaia theory and earth jurisprudence are as follows.

First, the Gaia theory aims at secularization of Mother Earth. According to Lovelock, earth's homeostasis for creating conditions suitable for life's activity is maintained by the enormous cooperative relationship of beings on the earth's surface and atmosphere. Then, the earth is not just the wholeness of nature in which humans are included, and is not the benevolent Mother Earth who gives birth to and nurtures life. The Gaia theory provides a reference point for criticizing the perception of the divine Mother Earth.

Second, Gaia has a naturecultural perspective. Gaia is a concept that can overcome the existing earth perception where humans violently resourced nature. Haraway defined the relationship between nature and humans as symbiotic evolution and integrated humans and nature from the point of view of natureculture. Gaia is

a natureculture because it is a self-regulation system in which humans and non-humans cooperate. Gaia as a natureculture suggests that earth jurisprudence can harmonize the relationship between nature and humans in a non-hierarchical and symmetrical way.

Third, earth justice can only be properly realized when earth jurisprudence de-sanctifies nature. In other words, the rights of nature can be brought into the political realm when earth jurisprudence secularizes Mother Earth. The current mainstream earth jurisprudence accepts the earth as Mother Earth. This has positive implications for realizing the right of nature and earth justice at present, but there is a theoretical limitation to sanctifying nature. Therefore, earth jurisprudence will be able to practice earth justice by secularizing and politicizing the concept of Mother Earth.

The Gaia theory and earth jurisprudence reviewed in this paper provide an ethical direction for implementing the UN SDGs Planet agenda. In a situation of extreme climate crisis, humans are being asked to establish a new relationship with the earth. Here, humans need to fulfil their responsibilities as actors participating in Gaia's self-regulation system, rather than occupying a superior position over nature. Earth jurisprudence based on secularized Gaia will be able to provide a guideline for implementing the earth justice requested by the UN SDGs.

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