

knowledge users, knowledge intermediaries, and donors.

Concluding Remarks

While introducing the knowledge-policy interface, this book not only covers the comprehensive range of political economy so that it can be adopted by various countries, but it also secures the generality that can be applied to different policy areas. Accordingly, the readers interested in innovation policies of Asia will be able to use the contents of this book considering the different characteristics of each country, such as the kinds of actors that usually intervene in the political context or the process of policy making.

Considering that many papers in ARP Journal are producing new knowledge related to innovation policies, the understanding on the knowledge-policy interface introduced in this book is expected to play the role of helping the new knowledge to be actually reflected in the policies. It is also expected to contribute to the development of innovation policies of Asia by fostering complementary interaction with the research papers in ARP Journal.

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Ecology of Wisdom, Arne Naess, Alan Drengson and Bill Devall, Counterpoint(2010), ISBN: 978-1-58243-592-3

The Norwegian Arne Naess who died in 2009 was philosopher, a mountaineer, an environment advocate, and a activist. He is also frequently said to be a person who marked a new era in the history of environmental movements in the 20th century, probably because his *Long-range Deep Ecology Movement* has large effects on environmental movements. Although

he thought actions are important, he was a peace-loving person, who was never violent or radical. He has great respect for Gandhi. The book *Ecology of Wisdom* to be introduced now is an Anthology edited by Alan Drengson and Bill Devall containing diverse writings related to the *Long-range Deep Ecology Movement* written by Arne Naess.

One of the reasons I decided to introduce this book is the people's misunderstanding or misusing of the ecological terminology. I think that a few politicians and public officials sometimes tend to mislead or ignore philosophical elements inherent in ecology, that is, the philosophical elements of ecology, which are close to naturalism and reciprocity, although they talk about "symbiosis", "ecology", "ecosystem", and so on. There are some cases of misunderstanding and misusing the scientific terminology such as "evolution" and "evolutionary theory"; the evolutionary theory was sometimes misled as supporting eugenics or racism. Furthermore, without any consideration on the fundamental meaning of its own, the word "evolution" is used sometimes where the word "change" is sufficient, for the only reason that evolution is better expression. On reviewing recent use of terms related to ecology, I feel that this tendency is being intensified (as a recent example, ecosystemic development). Another reason for the selection of this book is that I think ecological concern should be included in policies for science and technology, including environmental technology. One of the roles of science and technology emphasized by the new Korean administration is to solve diverse social and welfare problems of people aside from economic problems. Therefore, reviewing the roles of humans and views of the world presented in *Long-range Deep Ecology Movement* will provide a moment to agonize over the direction for development and scientific technology to scientists or science and technology policy decision makers.

In the preface, the editors said, "... You may never have heard the phrase *Long-range Deep Ecology Movement*, but you might be a supporter of the movement and are awakening to your intuition of deep ecology." This probably means that the "*Deep Ecology*" concept has been recognized by everybody to some extent in mind and that most people are

aware of the limitation of existing human-oriented conventional social development. The *Deep Ecology* makes people recognize “equality” and “the dignity of all lives”, which are among the virtues that human should possess, the so-called “the lord of creation”. Arne Naess is said to have considered himself as a teacher who taught individuals to clearly express their ecological wisdom (ecosophy) rather than a scientific philosopher. This book was made not to assert a unified ecosophy but to inspire readers so that diverse types of ecosophy owned by individual readers can be expressed—the very same ideology that Arne Naess pursued.

Ecosophy is a compound word made from “oikos”, which means household (or house), and “sophia”, which means wisdom. Therefore, if it is literally interpreted, it can be said to be “wisdom of living”. To understand the meaning more concretely, please think about the meanings of “ecology” and “economy” that use the same root as “ecosophy”.¹⁾ It seems like some philosophers give a great meaning to “ecosophy” and comment on it positively or critically. In a writing that was done in his later years, Arne Naess referred to ecosophy T. (ecosophy Tvergastein; Arne Naess’ own ecosophy). He state that everybody was not required to agree to ecosophy T., but just wanted everybody to realize the way to develop his/her own ecosophy through it. Of course, he mentioned thereafter that for “ecosophy” to become a philosophical basis that would accept the principle of deep ecology, it should be developed into a wider view of the world, that is, a philosophical view of the world (or system) that well reflects the conditions of living in the earth’s ecosphere. However, given his view that basically acknowledges diversity, it is considered that he did not want for his ecosophy T. to be established as a dominant philosophy.

The *Ecology of Wisdom* consists of a preface, an introduction, and five sections containing 28 essays. In the preface, the background of the planning of this book and the editors’ purposes are explained. The introduction (“The Life and Work of Arne Naess: An Appreciative Overview by Alan Drengson”) is

divided into two parts. The first part casts light upon Arne Naess’ life. Here, we will see how much he is respected in Norway, the background of his concentrated attention to environmental issues, and the motive for him to have come to propose ecosophy and deep ecology movements. The second part is filled with explanations about the deep ecology and shallow ecology presented by him. Make sure to read this part because this contains brief and important explanations that are helpful in understanding ecosophy.

Section 1 “Places in the Real World” contains essays that explain Arne Naess’ view of the importance of “places” in the base of the ecosophy possessed by each person. Everybody should have at least a place that comes to his/her mind when he/she recalls nature, ecology, living in nature, etc. In my case, a neat island in a forest comes to my mind. To Arne Naess, Tvergastein is such a “place”. This place is located at an altitude of approximately 1,500 m in the southeast slope of Hallingskarvet, a mountainous region in Norway. It is said that Arne Naess built a cabin in this place sometime in 1937 and used the cabin as a place for philosophical thinking and writing activities. He learned the true interrelation between nature and humans and humility to nature and clarified his enlightenment into philosophical principles. In that he found “philosophical enlightenment” while living a lonely life in a secluded place as such, an aspect similar to the Oriental thought “Lao Tzu” or “Taoism” can be seen. However, rather than the foregoing, it can be thought that he could make clear judgments and could establish criteria for the judgments through deep contemplation. This section points out the fact that, by reviewing nature that surrounds them, people can perceive the interrelations between them and other living things and in the places where they are. It also points out the fact that we can know deeply about ourselves only through our personal questions. It also informs that because everything we know always changes, questions can be said to be something that always exist in our daily lives and that to creatively adapt to the unceasingly changing surrounding environments. We should not stop learning and we

1) Ecology = “oikos” + “logos”(study), Economy = “oikos” + “monos”(custom or law)

should contemplate things through deep meditation.

In section 2 “*The Long-range Deep Ecology Movement*”, the deep ecology presented by Arne Naess is mentioned in earnest. Arne Naess seems to have thought that deep ecology movements should include three major elements: peace, social justice, and ecological sustainability. In that he emphasized social justice, Arne Naess may be judged to be a philosopher who regarded actions to be important. This section emphasizes the importance of diversity, cooperation, and beautiful actions. Along with the foregoing, this section points out the fact that a high level “pleasant life” is based on nonviolence and low consumption.

Section 3 “Methodology and System” focuses on Arne’s approaches to global viewpoints, methodologies, pluralism, intensity, and creativity as methods to help the clarification of our ecosophy. It also explains about the role of creativity in our lifestyles and Naess’gestalt ontology.

Section 4 “Nonviolence and Gandhi, Spinoza and Wholeness” contains Gandhi’s approach to group conflict. As is well-known, Gandhi’s nonviolent resistance is a new form of civic movement, a way followed by many activists. In this section, Arne Naess explains why Gandhi’s method is important to those who pursue cultural transformations in the 21st century. This section also contains essays on Spinoza that studied Spinoza’s approaches to the philosophy of life.

Section 5 “Problems and Ways Forward” begins with an assumption that for several decades, at the start of the 21st century, society and culture have been facing huge personal, social, and environmental problems. Arne Naess presents conceptual frames for solutions of and approaches to these problems. Emphasizing that the effects of the frames may be determined by our nonviolence, he emphasizes that all living things and societies should form cooperative relationships in order to solve diverse problems to be placed (or already placed) in front of us. This section is particularly recommendable for scientists and policy decision makers to review without fail. In this section, we can clearly know the author’s view of sustainability. Naess expresses unecological consequences of policies as follows;

$$\sum U = (\sum Pu + \sum Cu) \times N$$

That is, unecological consequences of policies are expressed by values obtained by multiplying the sum of unecological production and unecological consumption by the number of human population. From here, it can be seen that for sustainable development, not only the way of production but also the way of consumption should be changed to be ecological. Therefore, we should contemplate whether our current science and technology policies focus on only the development of the way of production. Naess’ essay contained in this section explains the concept of sustainable development as follows.

“There is sustainable development if, and only if, it meets the *vital needs* of the present-day human population without compromising the ability of future generations to meet their own *vital needs*.”

Comparing this definition with the definition in the Brundtland Report, he emphasizes that although the definitions are almost the same, the needs he referred to are not “simple needs” but “vital needs (for life)”. That is, he indicates that although the list of simple “needs” may include many elements that are necessary but are not vital to the maintenance of life, by limiting the list to vital needs, the scope of needs can be reduced and the benefits of sustainable development can be distributed to more people.

As this is the case in many countries, including Korea, there is a tendency to think sustainable development as sustainable economic progress. Naess showed concern about this viewpoint and pointed out that this viewpoint might be against the aforementioned definition. He argued that ecological sustainability was vital to sustainable development and that global and local biological diversity should be sufficiently guaranteed to maximize ecological sustainability. The editors decorated the end of this section with an essay entitled *Deep Ecology for the Twenty-Second Century*. Through this essay, Arne Naess showed the fact that human society wanted to go toward wider and more comprehensive sustainability rather than the narrow economic sustainability, expecting better future through it. Arne Naess considers sustainability as an important element for the future to the extent that he expressed

it as an indispensable approach.

Sustainability, pushed back to a lower priority than green growth, looks like taking back its original position in present administration. Although the fact that sustainable growth was emphasized rather than development is somewhat regretful and worrisome, present government's careful consideration about sustainability is much encouraging. Reviewing Arne Naess' view of deep ecology at this time is considered to be an opportunity to look at policies from new viewpoints. It should be certainly helpful in conceiving policies that would affect longer temporal ranges than policies for 5–10 years. Finally, I would like to finish this book review with part of Arne Naess' writing, which is common but touches my heart.

“ ... confident that we have a mission, however modest, in shaping a better future that is not remote. Just a couple of hundred years.”

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Propensity Score Analysis: Statistical Methods and Applications, Shenyang Guo and Mark W. Fraser, SAGE Publications, Inc.(2009), ISBN: 978-1412953566

This book, written by Guo and Fraser, deals with the statistical (or econometric) methods used in quantitative evaluation of a treatment. Specifically, this book focuses on explaining the method of propensity score analysis, which has been used in many fields for the last 10 years. The methodology was developed to solve the selection bias problem, a major issue that occurs in performing evaluations. Propensity score analysis was first used to watch the effect of medication or treatment in the health and medical

statistic fields. However, the range of its application has become wider and wider to include areas, such as governmental policy evaluation, etc.

Take the evaluation of the effect of a newly developed medicine for example. First, you will need a medication group and a comparison group. By comparing the two groups with the change in time, you will see the effect of the newly developed medicine. When you experiment with white rats, you can give the test drugs to rats that are randomly selected with no feeling of guilt and leave the other rats as they are to see the effect of the newly developed medicine after a few months. If the number of the rats is sufficiently enough, you can also obtain the statistical significance of the quantitative evaluation effect. This is the randomized experiment, which is a basis of scientific experiments that uses experiment and comparison groups. However, if you try to create an experiment group and comparison group of actual people through random selection, you may be faced with economic and ethical problems. After all, people get medicine because they want to be cured of their diseases or because they show symptoms of a disease. Patients often have physical conditions different from other normal people in many aspects. Accordingly, the method of measuring the effect of a medicine through simple comparison of medication group with normal people group after lapse of a certain period of time can have statistical bias in its results. This bias, which occurs because the characteristics of the experiment group that receives some treatment are different from those of the comparison group, is called selection bias.

The above problem can arise in the evaluation of various fields of different targets and different perspectives. Take the example of a labor policy that carries out job training for the unemployed. The attempt to evaluate the effect of the labor policy through simple comparison of future employment rate of the group of people who received the job training with that of the group of people who did not receive the job training can cause the problem of selection bias. This is because the government, with limited financial resources, would not randomly select people but deliberately select and train people who have high possibility being employed in the future.