

The Choice of Development Paradigms in Japan after the 3/11 Fukushima Nuclear Disaster

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Introduction

If disasters were only caused by tsunami, we can always restore our lives, even though we have a very severe and sad experience from it. However, when disasters are caused by radioactivity spilled over from nuclear plants, we don't know how we can restore ourselves. – a refugee from Minami-Soma town in Fukushima Prefecture, November 2012

The northeastern part of Japan was hit on March 11, 2011 by an earthquake of magnitude 9 as well as a huge tsunami that accompanied it. At the same time, at the Fukushima No.1 Nuclear Power Plant, the meltdown of fuel occurred in reactors #1, #2, and #3 due to the loss of all electrical systems, which stopped the cooling systems in these nuclear reactors. On March 12 and 14, the containment buildings of these reactors were destroyed due to a hydrogen explosion caused by exposure of the nuclear fuel in these units. On March 15, reactor #4, which had been shut down for inspection at the time of the disaster, also had a severe incident. Its containment building was also damaged due to a hydrogen explosion caused in the stock pool of used fuel in the reactor.

In the following days, highly radioactive materials were emitted by successive explosions at the facility as well as by exposure of melted fuels into the atmosphere. The contaminated water was also leaked into the sea. At first, the radioactive emission was

declared to be 4th degree but later modified to 7th degree, which corresponds to the explosion of the Chernobyl Nuclear Plant in the Ukraine in 1986.

In this paper, we will first look at the basic reasons why atomic disasters are caused at the time of natural disasters, such as during a huge earthquake and tsunami. The Fukushima incident was a human-made disaster, which was the consequence of a development policy that prevailed in Japan during the era of high economic growth and world-wide competition for material affluence. Japan's energy policy was handled by the dominant ruling elite composed of a politicians-bureaucrats-business group coalition. In particular, in the field of nuclear energy policy, the so-called "atomic village", composed of the above-mentioned coalition plus academic elite and mass media, dictated it. In contrast to the dominant governing elite, the common people who had conducted peaceful lives until the disasters became the first victims. However, the entire life system of Japan as well as the whole earth have seriously been damaged by the severe incident.

Secondly, we will look at the rise and confrontation of two oppositional views for the development pattern of Japan after the "East Japan Great Disasters". One is the continuation of a top-down and centralized type of development policy, which accepts economic globalization and free trade market policies. The other is the newly emerging, endogenous type of development policy, which emphasizes regional sovereignty, use of local resources and recyclable energy, and is supported by the participation of civil society. We will see that the former development paradigm is closer to one of violence towards all living systems, which will be unsustainable in the end; while the latter might lead to a more convivial and peace-oriented society.

Thirdly, we will look at the role of Buddhism in this confrontation of different paradigms. After the Meiji Restoration in 1868, Buddhism in Japan was marginalized from political and social life. Buddhist temples have come to be used by the public only in times of funerals and consequent memorial services. Therefore, Japanese Buddhism has been called "Funeral Buddhism". It has lost most of its spiritual mission. However, since the time of the 3/11 Disasters, Buddhist temples and priests have provided places for refugees as well as caring service. These are signs of a revival of the spiritual mission of the Buddhism. This is a time when the Japanese, after decades of economic growth, have started to seek a lifestyle corresponding to a post-economic growth period. In this way, we will see that the notion of development in the teaching of the Buddha—which advocates abandoning the greedy life for one of the fulfillment of spirituality—can provide guidance in this transitional period. Buddhism condemns a top-down and centralized type of development (*pattana*), which increases the acquisitive mind and greed, and shows way to reach development from within

and spiritual fulfillment (*bhavana*).¹ This teaching can show the Japanese the right way in this time of conflicts over different development paradigms. Buddhist wisdom can be useful and vital in the contemporary age when people are in search of their life choice after the 3/11 East Japan Great Disasters.

The Nuclear Disaster in Fukushima: The Consequence of a Development Policy

In these disasters of 3/11, approximately 20,000 people lost their life or are still missing in the three prefectures of the Northeast (Iwate, Miyagi and Fukushima). At the same time, half a million people in these prefectures lost their relatives, houses, neighborhoods, and community life. Many people experienced some if not the total destruction to their homes and belongings. They lost their workplace and jobs as well. In Fukushima Prefecture, where the nuclear explosion took place, from March to June, over 200,000 people (10% of the total population of the prefecture) were obliged to evacuate to other places, half of them outside the prefecture.

The government ordered the inhabitants of the surrounding area of a radius of 20 kms from the nuclear facility to evacuate themselves and recommended those living in the area of a radius between 20-30 kms to remain inside their houses. However, later it was discovered that hot spots of contamination exist even in the area of a radius over 30 kms from the reactors. These were created due to a westerly wind and rain several days after the incident. There are many people, especially, pregnant women and families with small children who chose voluntarily to evacuate outside this 30 km zone.

In this way, this nuclear disaster has destroyed family and community life. It has also shrunk the economic and social activities of the region. In addition, we cannot forget that the coastal areas were also seriously damaged by the tsunami. The radioactivity² contaminated the soil, water, and living systems of the region and also threatened life in other parts of Japan, including the capitol of Tokyo. Here we have to see the reason why the nuclear power plants have caused such serious damage, and understand why this incident was not a natural disaster but a human-made one. It is the consequence of a deliberate development policy geared towards high capital accumulation adopted by Japan after WWII.

The Northeast part of Japan is one of the poorest parts of the country. It provides the role of supplier of agricultural and marine products as well as labor force for Japan's metropolitan, industrial center of Tokyo. It also provides the role of energy supplier to the

¹ *Pattana* is a Thai word meaning "development", most often used for modern economic development. It derives from *vattana* from the classical language of Buddhism, Pali, meaning an increase in number that may spread like a weed. *Bhavana* is another Pali term that means "meditation", "cultivation", or "development" in qualitative terms, as opposed to *vattana* which implies development in quantity. The interpretation of *pattana* and *bhavana* in terms of modern economics is based on Phra Payutto (1995) (1996).

² cesium134 has a half life of 2 years, cesium137 half life 30 years, iodine131 half life 8 days, and others.

latter. The power structure of this country in the post-war era deliberately decided to emphasize among energy sources nuclear energy. It was believed to lessen Japan's dependence on oil imported from the Middle East and to open the road for nuclear armament for this country.³

What is this power structure in Japan's high economic growth period? It is the complex of a politicians-bureaucrats-business world. They represent a policy of *pattana*, centralized development conducted from above. *Pattana* in Japan has emphasized high capital accumulation and consumption through an export-oriented strategy. An international and domestic division of labor policy was adopted to realize high economic growth in this country. This policy was characterized by a division of industrial centers and peripheries, supplier of resources to the former. In order that this strategy be accepted by rural areas, two policies were adopted: 1) an economic policy of huge "subsidies" or aid were injected in the latter, in particular, in areas that accepted nuclear plants; 2) a cultural policy of huge propaganda advocating that "nuclear plants are always safe, bringing prosperity and a bright future to a region". Thus, 54 nuclear plants were constructed in the peripheral, rural areas of Japan, mostly in coastal areas in spite of the fact that the archipelago of Japan is located on the earthquake belt of the Western Pacific.

However, the problem was that the power structure in Japan—in particular the nuclear power structure or so-called "atomic village" composed of politicians, bureaucrats, big electric companies, scientists and media, the last two being thickly fed by monopolistic electric companies—believed themselves that nuclear power plants were absolutely safe and forgot to prepare for a large-scale earthquake. The 3/11 earthquake with a magnitude of 9 had already been forewarned by scientists, even in internal reports to policy makers and the Tokyo Electric Power Company (TEPCO). These warnings, however, were ignored, and the 3/11 tsunami of a height of 14-15 meters at the sight of the Fukushima #1 facility easily surmounted its barrier of 7 meters—a scenario also forewarned by some seismologists. Thus, the nuclear incident at Fukushima #1 was clearly a human-made disaster and not a natural disaster.

Who are the victims of this severe incident? First, local communities in the neighboring region were seriously affected. At the time of the earthquake and tsunami, the local communities showed the strength for mutual help, but they are now broken up by forced evacuation. Many people are suffering from isolation from their neighborhoods and home

³ The necessity of nuclear development in order to prepare for possessing nuclear arms was never officially acknowledged. However, the necessity to hold and develop nuclear technology as a "first-rank" developed nation has always been declared by politicians of the Liberal Democratic Party (LDP), which ruled Japan for most of the post-war era. A national public television (NHK) special program recently disclosed the connection of the latter intention to a rearmament strategy. NHK Special Team, *Kaku Taikoku-wo Motomete (Desiring to be a Super Nuclear Power)*, Tokyo: Kobunsha, December 2012.

regions. Families themselves have often been obliged to be separate. 200,000 displaced people are not certain when they can come back to their homes or if they can ever come back to the home region. Many people have lost their workplace, school, and neighborhood life.

Pregnant women and families with small children fear that their children will suffer from radioactive materials emitted in the region. Thus, many families are obliged to be separate, even if they live outside the officially designated evacuation area, to look for some place where they can raise their children more safely. Many children in the region have gotten advice to not play outside either at school or in their neighborhood. Many animals, like horses, cattle, pigs, chickens and pet animals, were left behind during the urgent evacuation. Many of them died of starvation or survive today in the wild. At best, the livestock was sold off at the lowest price.

Economic and community activities have shrunk or slowed down in the areas hit by the tsunami, and many people have lost stable jobs. However, even though people have started to resume step by step their economic activities in the Northeast, in the area victimized by nuclear fallout, there is no hope to start again their economic activities. Farmers, stock raisers, and fishermen have been obliged to leave their livelihood work. For generations, they have assiduously maintained fertile land, farm, and sea. However, radioactive materials now contaminate the environment. Producers outside the 30 km warned and 20 km no-admittance area also suffer from rumors that the products of Fukushima and the Northeast region in general are contaminated, even if scientific examination has shown that the products are safe. Several farmers who specialized in organic farming in the region have committed suicide from despair.

Food, even if it was produced outside the evacuation area, is often contaminated. When this situation occurs, the whole region where the contamination is reported is suspended to export the same sort of product. Beef and milk are often contaminated, because the cattle have eaten grass or feed coming from the contaminated region. From the rice to the meat to the fish to the water, and even the cement used in construction materials, high degrees of radioactivity have been discovered. Now no one can absolutely be safe in this country. Thus, the victims of the disaster have become spread across prefectural and even national borders.

The entire nation will thus ultimately pay the costs of this disaster. The government and TEPCO, operator of the Fukushima nuclear facility, should stabilize the cracked reactors where melted fuel has been found, cooling it by reworking the cooling system, and ultimately shutting down damaged plants. In December 2011, the government declared that the temperature inside the nuclear plants was found to be below 100 degrees centigrade and thus stabilized. However, the complete shut down of the reactor will take years and years. The

Chernobyl accident, which took place in 1986, is still causing contamination in the surrounding area. At the same time, in Japan, like in other countries, no one knows where nuclear waste, both high-level and low-level, should be disposed. Until shut down can be accomplished and even afterward, the nation will continue to pay the costs.

In Fukushima, radioactive contamination was caused mainly at the time of the explosion of the four containment buildings in the station. However, radioactive materials continue to be emitted from the plant, contaminating the air, soil, water, sea and causing a hazard to life systems in Japan and the whole planet. The decontamination of soil has started in Fukushima prefecture with the grounds of schools. It is an enormous task, and the problem of how to dispose of the contaminated soil is critical. For the moment, it is just being buried at the sight, giving people worry of further contamination of soil, water, and the environment surrounding them. Actually, the problem of the disposal of nuclear waste as well as of contaminated water used to cool nuclear fuel has been raised. When a displaced 15 year old girl from Namie-cho in Fukushima was allowed to return for two hours to her house, located 4 kms from the exploded nuclear plants, to pick up necessities in the silence of a ghost town, she was reported to have said: “We can come back to collect the rest, the memories, that is, if they ever let us return here again.” My question is: Who are “they” here? The government, the “atomic village”, or her memories? She was obliged to separate herself from her cherished memories at home. However, she does not know when she can meet her memories again, or if she ever can.

Confrontation of Oppositional Development Paradigms: Economic Growth versus Post-Economic Growth

After the 3/11 nuclear disaster, we see the rise and confrontation of two different types of development concepts. Two different groups have emerged in a confrontation over these paradigms: one between the central leadership and local communities and the other within the central leadership itself.

As pointed out earlier, the economic growth of Japan was promoted and commanded by the central authority of politicians-bureaucrats-business world. The localities accepted that leadership in exchange for subsidies injected from the center. These subsidies were mostly financed by the high savings of the nation—including those from localities—as well as the debt of the government—both central and local since the central government urged local governments to finance a certain portion of funded development projects⁴, the latter having often financed them issuing local bonds. This is why as GDP grew, we saw plenty of big

⁴ This varies according to locality, but in most cases about half. In the case of Okinawa Prefecture and localities who have accepted nuclear energy plants, up to 90% of the projects were funded by the central government.

infrastructural projects everywhere in Japan together with accumulated debt owed both by the central and local governments. In this way, the localities were depending on the center. The conservative politics assumed by the Liberal Democratic Party (LDP) assured the cohesion of this interdependent, domestic political structure.

However, there have been times that the localities have revolted against this orthodoxy of development, electing “innovative” or “oppositional” governors at the prefecture level. These have been mostly the case in big urban centers, such as Tokyo, Osaka, Nagano, Chiba, Shiga, Okinawa, etc. The “deep” rural areas have not been touched by this urban trend, and the Northeast is no exception. A new tide has appeared in these past two decades, which we will look at shortly. In the Northeast, a traditional bastion of conservatives, it has appeared with the reconstruction plan formed by localities after the 3/11 disaster.

In August 2011, Fukushima Prefecture adopted the “Fukushima Vision on Reconstruction”, and in November, the “Fukushima Action Plan” accompanied the former. The documents draw a vision of reconstruction for the sustainable development of the prefecture based on recyclable natural energy. This is a radically different picture from preceding development plans adopted by this prefecture for many years, when finance was heavily dependent on the subsidies related to nuclear power plants. Fukushima Prefecture had already accepted two nuclear power facilities that have ten reactors in total. This new plan is in opposition to the development pattern imposed until today by the center. It has the intention of promoting sustainable development based on local energy and resources.

On the other hand, at the central level, the former Naoto Kan administration had wanted to bolster the recovery of economy. Before the severe hit by the 3/11 disasters, the Japanese economy had already been hit by the world-wide financial crisis starting in the mid-2000s with the Subprime Mortgage Crisis, the Lehman Shock, and then the more recent rise of the yen value that has adversely affected exports and accelerated the exodus of domestic factories to neighboring Asian countries. What has been the solution proposed by the center and its leadership?

On the international level, the government has shown interest in joining in the international talks concerning the Trans-Pacific Partnership Agreement (TPP)—promoted by the U.S.A. and aiming at accelerating trade liberalization in the Pacific area. The Japanese government wants to benefit from such an enlarged free trade area to assure more share in the newly emerging big markets in Asia. On the domestic level, the government wants to promote the entrance of big food processing companies into the Northeast, emphasizing large-scale production and cost efficiency. This is to prepare for international competition that will become intense with the progress of free marketization under TPP. However, I immediately understand that this policy of the central government might conflict with

localities that are heavily dependent on agricultural and marine products mainly produced by small and medium producers as well as cooperatives of individual farmers and fishermen.

The opposition of two different paradigms of development is now clear: one is related to territorial development based on endogenous initiatives and local resources, emphasizing the full employment of local people and the equitable distribution of resources; the other emphasizes accumulation of capital by large enterprises based on the merger and acquisition of smaller firms. The latter solution might strengthen the cost efficiency of the Japanese economy. If the latter option becomes prevalent, it is clear that there will be more intense competition among large and small-medium enterprises, cooperatives, and small producers. This competition will bring more bankruptcy and unemployment to local areas.

This opposition of paradigms is visible also at the center. The political change that took place in 2009 shows the conflict between the growth cult adherents and the people who are not satisfied with the growing social gaps, poverty, and unemployment that have become visible after the 1990s when globalization was introduced to the Japanese economy. That is why the Democratic Party of Japan (DPJ) advocated a “change of the government” and won the national elections of August 2009, overthrowing the Liberal Democratic Party (LDP)-Komeito coalition. Among the platforms of the DPJ, the following ones show the most visible difference with the LDP led coalition: “Emphasis on education rather than cement works”; “Promotion of the New Public Commons (NPC)”; and “Regional Sovereignty.”

- “Emphasis on education rather than cement works” criticized the policy of the growth-oriented period, when the LDP government disbursed huge budgets for public works to bring prosperity to large construction companies and local economies. This policy had support from both the big companies and the localities, however, it did not create permanent job opportunities in local areas. The jobs created by public works are always temporary and depend on other public works projects. The nuclear power plants entered in this category of “public works”, besides their strategic value for energy and rearmament policy. The platforms of the DPJ emphasized more formation around people rather than around big public works projects for the sake of spending policy. They forecast that Japan will need to create a knowledge intensive type of economy in order to prepare for sustainable development in the future. This is also the way to overcome the crucial ageing issue for this country.
- “Promotion of the New Public Commons (NPC)” is related to governance issues. In the growth period, governance was monopolized, as we have already pointed out, by the

coalition of politicians-bureaucrats-business world. People were considered “consumers” and not interested in the management of society. At worst, they were considered “voters” but never active “citizens”. “New Public Commons” means the partnership of the public and private sectors, including NPOs, in conducting development projects. It aims at two strategies: 1) to realize smaller government, and 2) to promote the participation of civil society in the management of the country as well as localities.

- “Regional Sovereignty” means the change in the power relations between the central government and localities. It emphasizes the realization of equal footing between the two. In this sense, it is different from decentralization, which indicates the transfer of certain competences and resources that the center holds to localities. That is why regional sovereignty supposes more autonomy of localities.

All these platforms were innovative ones. However, they had, in fact, been expected for decades by a certain part of Japanese society that has become awakened with the development of civil society. The DPJ explored the new mentalities of the Japanese that have increasingly become sensitive to the issues of accountability and social gaps in the progress of economic globalization.

When the DPJ took power, however, they experienced problems of accommodating with the existing power structure composed of the politicians-bureaucrats-business world. A certain part of the DPJ itself is composed of a faction who left this structure due to personal political interests. That is why, after a change of the government that had been longed for by many citizens and voters, the conflicts inside the party turned into an intra-party struggle. The DPJ has not been able to advance their policies through three years and three administrations (Hatoyama, Kan, and Noda) since taking power. Then, they were confronted with the 3/11 disasters.

Actually, on the central government level, there are opposing camps of the two different notions of development.⁵ One inherits the major lines of the platforms established for the August 2009 election and advocates the fulfillment of the nation’s life rather than economic growth per se. It seeks to enlarge domestic demand through the redistribution of

⁵ The conflicts between two different paradigms of development inside the DPJ are well explained by a series of articles published in the *Asahi Shimbun* entitled: “Post Economic Growth or Economic Growth? *Edanomics* versus *Maeharanomics*”, January 8-10, 2012. *Edanomics* means the economic philosophy advocated by ex-Cabinet Director Yukio Edano, while *Maeharanomics* advocated that supported by Seiji Maehara, Chairperson of the Council of Policy Studies. The former adheres to the post-economic growth school and the latter shows familiarity with the economic growth school. The theory of post-economic growth in Europe is explained by Latouche, 2010.

income and reform of the social security system.⁶ This line of thought advocates the abolition of nuclear power plants and the promotion of natural energy. The other line of argument supports the recovery of the Japanese economy through promoting exports to world markets especially in Asia and entering in the TPP scheme on the international level, while promoting mergers and acquisitions and cutting social expenditure costs on the domestic level. The Noda administration seems to lean to the latter, while making efforts in tax-social security reform.⁷ The balance between these two oppositional paradigms is subtle and precarious. We do not know yet which one will prevail in the years to come in this time of difficulty for the Japanese economy. However, it is clear that we are in a transitional stage from the preceding growth oriented period to that of preparing for the coming period of a more matured stage of economy.

In this stage, we see the contrast of different notions of development: one appears between the center and localities, and the other between the post-economic growth school and the economic growth school. In both cases, there is a contrast in development notions: one emphasizing a resetting of economic growth of the top-down type conducted by the centralized coalition of politicians-bureaucrats-business world; the other is more keen towards social development supported by regional autonomy and citizens' participation for a more sustainable type of development. In recent years, the former has reached a deadlock due to the world-wide depression and accumulated deficit of the government—the so-called “sovereignty crisis”. However, the traditional leadership wants to revive it, connecting the Japanese economy to world-wide/region-wide free markets. The latter is supported by a rising civil society that is keen to the widening social gaps between the small number of rich and the mass of people, who feel uncertainty in their future. In this critical moment, the 3/11 disasters took place and have had a huge influence on the Japanese rediscovery of spiritual values in society. We will see, in the next section, how Buddhism could constitute one of these new values.

Rediscovering Spiritual Values: Towards a New World of Autonomy, Participation, and Conviviality

In Japan, every year, a Chinese character is chosen to represent the trend of the epoch.⁸ At the

⁶ By unifying the social security system that divides regular employees and the other categories of the nation, such as housewives or self-employed people who are largely disadvantaged in comparison of the former.

⁷ The combined tax-social security reform that the Noda Cabinet proposed to the Diet in January 2012 can be called an eclectic plan. Prime Minister Noda intends to finance the increasing costs of social security by increasing the consumption tax to 10%, but the proposed plan does not indicate any solution to reduce the huge governmental deficit, as was promised by the DPJ platforms.

⁸ This event is organized by the Japanese Association of the Competence and Certification of Chinese Characters on the basis of public vote. *Kizuna* received 61,453 votes, while the 2010 Character for “hot” received 14,537. The leap in number of votes from 2010 to 2011 shows that many Japanese now are keen to

end of 2011, the character *kizuna*, meaning “ties” or “relations”, was chosen to represent the year 2011. In a time of disasters, people rediscovered the importance and necessity of human ties, such as family, neighborhood, or mutual help. *Kizuna* was chosen in contrast to the progressing isolation of individual life in this era of economic globalization. The experience of the disasters has shown the Japanese the importance of social and human ties in life. Many people in Japan feel that in order to assure job and economic vitality, economic growth will be needed. However, in an age of uncertainty, they may rely on social ties and mutual help. In other words, spiritual value for human beings is being rediscovered.

At the time of the big earthquake and tsunami, Buddhist temples and priests played important roles for providing evacuation centers and for caring for people who lost their families, relatives, and houses. Japanese Buddhism has been considered to be asleep during this long era of high economic growth. People have said, “Buddhism is for funerals”. In turn, the need for spiritual care was replaced by trying to increase income every year. For many people who dropped out from the old temple system, new Buddhist denominations such as Soka Gakkai, Rissho Koseikai, etc. provided support and a place of refuge. However, at the time of the disasters, we saw the clear revival of Buddhism for assisting people who suffered, both materially and spiritually.

In terms of material help, there were of course some temples that were hit and decimated by the tsunami. However, many temples are located on higher ground in these mountainous, coastal areas. They have wide precincts and open halls for ceremonies. These temples provided emergency refuge for people who lost their homes. They served as distribution centers for food and assistance materials. They also accepted the remains of people who died in the tsunami of unknown identity until the relatives could identify them. Some temples near the Fukushima #1 facility provided space for debris which might be contaminated by radioactivity that no one including the government would accept for storage.

In terms of spiritual care, many priests who are familiar with their local neighborhoods provided spiritual care to depressed people. Rev. Setonai Jakucho—a famous novelist who became a nun and is now 89 years old—maintains a temple in Miyagi Prefecture where it is reported that she organized more than three hundred comforting dharma talks—many of them held in the open-air—in six months from April to September for people who lost everything including their relatives. Of course, spiritual care can be provided by every religion, however, the Northeast part of Japan is well known for the strong devotion of the common people in the rural and fishing villages to local Buddhist temples. We can say that Buddhist temples assumed a vital role for emergency aid and spiritual care to these suffering people. We have seen plenty of examples of how these people, who got care,

manifest their interests by appealing to this particular Chinese character of *kizuna*.

have recovered strength to develop self-reliance and the reconstruction work of tomorrow.

Buddhism, however, is not only for this emergency work. The Buddhist teachings can also provide a focal point of reflection for the on-going reconstruction work. We have seen that the Japanese are in a transitional period from an era of economic growth to one of post-economic growth. This transition will bring a re-appraisal of wealth and happiness. The notion of happiness always constitutes the central objective of people's lives. In the era of economic growth, it was common that, for everyone, happiness derived from increasing income and material wealth, represented by an abundance of consumer goods. However, Japan has entered into this transition period where people increasingly want spiritual value and fulfillment of life (*ikigai*); things once ignored in the time of economic growth,

What are the components of these spiritual values? As we have seen in preceding sections, they are related to autonomy and participation. The Fukushima Reconstruction Vision showed it well. The platforms of the DPJ indicated these new values. These values are, of course, interrelated. When regional autonomy becomes a major objective of development, it should be assured by the inhabitants' initiative and participation. Mahatma Gandhi foresaw this for the future of independent and peaceful India, which excluded caste division and overcame colonial mentality. He advocated two wheels for this journey: autonomy (*swaraj*) and self-sufficiency (*swadesi*) (Gandhi, 1982).

This development notion corresponds also to the spirit of the Sarvodaya Shramadana Movement for village reconstruction led by A.T. Ariyaratne in Sri Lanka (Ariyaratne, 1999). Sarvodaya—which means everyone stands by him/herself and awakens to the truth—is based on a Buddhist philosophy. It rejects dependency on greed and encourages a life of middle way (moderation) with self-esteem, compassion, and wisdom. Now, after the 3/11 disasters, the Buddhist notion of development can provide a good and appropriate reference for the Japanese who are in search of the way of post-economic growth.

Ven. P.A. Payutto, a leading scholar monk in Thailand, has interpreted the Thai word for development *pattana*—a transitive verb meaning “to develop from above”—as based on the human tendency toward *tanha* (grasping). *Pattana* increases material wealth, emphasizing efficiency and competition. At the same time, however, it proliferates an acquisitive mind⁹, a widening gap between the rich and poor, poverty and human deprivation, deterioration of the environment, disintegration of family and community life; in short, all sorts of human sufferings. While *bhavana*—an intransitive verb meaning “to open up oneself to universal truth or enlightenment”—is based on *chanda*, which means right effort to abandon grasping and the will to find out the truth. In order to increase the good and abandon the bad, we have to convert our *tanha* into *chanda*. Thus, *bhavana* is based on autonomy and self-sufficiency,

⁹ John Maynard Keynes called it “animal spirit”.

which is the Middle Way of life and knowing how to be fulfilled. This idea corresponds to E.F. Schumacher's advocacy for "small is beautiful" and "Buddhist economics" (Schumacher, 1974), which corresponds to a life style in the post-economic growth period.

Now, in Japan, we are facing the opposition of different types of development paradigms: one is based on the high accumulation of capital and high economic growth; the other aims at a more stationary and mature type of economy that emphasizes the sustainability of society and environment. If we continue to seek after the high accumulation of capital and high economic growth, it will result in trouble and conflicts around the globe and further deterioration of the environment characterized by constant and increasingly large scale disasters. Here, the Buddhist philosophy of autonomy and self-sufficiency might give light to our choice. It indicates the end of an individualistic value system that has forged the ideological basis for a modern world system characterized by the constant increase of production, the pursuit of a profit-oriented mind as well as consumption (greed), increasing waste and the accelerating deterioration of the human environment, and ultimately the increase in conflicts and war.

The other model shows the components of a post-Fukushima/ post-Globalization development model that emphasizes more endogenous development¹⁰ of local communities and people's participation in them. People should find out their own meaning of life (*ikigai*) through the realization of a more non-violent (*ahimsa*) and sustainable type of development. In such a new phase of social development, based on the fulfillment of basic needs, the development of spirituality in a mutually caring community life will be crucial. This is one step towards a more convivial and peaceful world, as Ivan Illich once wrote (Illich, 1973). The Buddhist philosophy of development would support a direction towards a new page of the post-economic growth history of humanity. This is also an opportunity for the revival of Buddhism in Japan.

Conclusion: The Role of Buddhism in the Transition of Japan from the Growth-Oriented Era to the Post-Growth Era

In this paper, we have seen that the Fukushima nuclear disaster was the consequence of a development policy based on high capital accumulation and high waste, promoted by the centralized power structure of the country. The "developmentalism" of the power elite forged an economic structure aiming at high economic growth. The structure has been characterized by an international and domestic division of labor that emphasized efficiency and a high concentration of capital at the center. Its ethics are based on the endless acquisition of

¹⁰ Here, "endogenous development" means that one is autonomous (*swaraj*; *sarvodaya*) in the face of the impact exercised by the center and material civilization and that one follows only one's inner voice and one's community who perceives a spiritual correspondence with nature and humanity.

material wealth, domination over nature, and the discharge of huge wastes in it. It has caused social splits and endless environmental deterioration. The development of nuclear energy in the national provision plan of basic energy constituted an indispensable part of this particular growth-oriented structure. It led to an unstable and violent world characterized by the war of terrorism and counter terrorism as well as environmental deterioration that has caused many disasters. This type of development has brought and enlarged the world of death in our society, signaled by the Fukushima disaster.

Now after the Three Mile Island and Chernobyl nuclear disasters, the Fukushima nuclear disaster announces the end of “developmentalism” from above and of aiming at high economic growth. We are faced with moving ourselves to a world of post-economic growth, post-developmentalism, and post-economic globalization. This corresponds also to a world of sustainable development, as the Fukushima Reconstruction Vision suggests. There are emerging peoples and communities who aim at more autonomous and sustainable life styles and emphasize more socially oriented development and spiritually fulfilled lives. However, there are always people who believe in the merit of economic growth through creating jobs and material affluence, while the major factors for it have clearly been exhausted in the countries of the North.¹¹

People nowadays are more concerned with spiritual values. It is time that we reconsider the treasure of human wisdom, including Buddhist philosophy. After the 3/11 disasters, there are good signs for the revalorizing of the teaching of the Buddha, such as the personal attainment of universal truth, a moderate lifestyle and knowledge of self-sufficiency, an understanding of causality through dependent origination, and conservation of the environment through an ethic of non-violence. When we abandon the value system that has forged the basis of the modern world—the endless pursuit of profit, the acquisitive mind, material affluence, domination over nature—the Buddhist philosophy will provide a good reference for this intellectual quest for an alternative.

Further, the validity of Buddhist caring was shown at the tragic time of the earthquake and tsunami in the Northeast. The All Japan Buddhist Federation declared in December 2011 the necessity of abolishing all nuclear power plants in the country. In this way, Buddhism can be relevant to the crucial choice of Japanese society, which is, “How will she escape from the growth-oriented stage and proceed to a post-growth, post-developmental and matured age?” This new period will be characterized by regional autonomy, endogenous development, reconstruction of communities once divided by globalization, mutual care and convivial life, concern with moderate lifestyles, environmental conservation, and concern with the fulfillment of spirituality in life. These new values are actually being sought by many

¹¹ aging population, smaller workforce, capital outflows, increasing costs, governmental budget deficits, etc.

Japanese, even if we do not call them Buddhist.

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