DOI:10.6531/JFS.2015.20(1).A19
ARTICLE
.19

Internal Crisis as an Impediment to Futures Thinking

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Abstract

Since the publication of The Limits to Growth in 1972, it is hoped that human beings have become more aware of potential crises and have become more proactive to prevent those crises from happening. Halal and Marien held a symposium on the Global Megacrisis in the Journal of Futures Studies in 2011. Based on the discussion in the symposium, this paper tries to reveal why a crisis often leads to a collapse even if warnings about the crisis have been issued for some time. It uses as a case the collapse of Fukushima Daiichi Nuclear Power Plant, which occurred on March 11, 2011. The paper argues that the root cause of a crisis in society is found in the crisis of self-worth inside individuals and organizations.

Keywords: Crisis, Collapse, Fukushima, Sense of self-worth

Slipping towards Collapse

People would love to be surrounded by things that are good and hopeful. In the present, however, it seems difficult to find media such as books, reports, articles, programs and films that talk about a good or better future. It is also not often that we come across people who talk enthusiastically about a good future. Something in our society seems to discourage us from conceiving positive images of the future.

Among books and films that depict negative futures, some were intended to explicitly warn us about the high probability of worse conditions for our society and the world in the future (Carson, 1962; Gore, 2006; Meadows, Meadows, Randers & Behrens III, 1972; Slaughter, 2010). They present the view that the environment, which is fundamental to our continuing life, has been endangered by our going headlong into further economic growth. Human beings are the only creatures that have a concept of growth and pursue the realization of that concept. At present, the end result of this endeavor looks likely to be major collapses of our communities,

societies, nations and the Earth. The fact that few bright images of the future have been depicted demonstrates that it is not unrealistic to foresee that the whole process of pursuing economic growth will take us to a condition completely opposite of "growth". It would obviously be ironic if the creature that regards itself as the wisest on the Earth were to continue to work towards its own termination.

Halal and Marien (2011) opened a symposium on the Global Megacrisis in the *Journal of Futures Studies* and presented four scenarios, running from pessimistic to optimistic: "Decline to Disaster", "Muddling Down", "Muddling Up", and "Rise to Maturity". Responding to their analysis and scenarios, Dator (2011) argues that collapse will surely occur and that we need to prepare for it, instead of continuing to consider it merely as one possibility in the future. Kelleher (2011) suggests that a complex systems map showing us that the elements of the Megacrisis are interconnected would be better than the traditional linear trends analysis used by Halal and Marien. Slaughter (2011) argues that warnings about crises have been issued but have been ignored for some decades. Thus, he states that solutions to the Global Megacrisis will emerge only when people begin to examine their own *interior* selves. Feinberg and Willer, cited in Markley (2011), found that people tend to either reject or forget warnings if promising solutions were not presented with them. Although Halal (2011) argues that information technology and artificial intelligence will help humans develop their capability for higher consciousness, Barber (2011) sees few indications of movement in that direction. Barber argues that the owners of incumbent technology (e.g., the energy industry) do everything to protect its present trajectory by disliking any new path, even if that new path might rescue us from a crisis. He says, "Lifestyles are being placed above Life." (Barber, 2011, p. 136)

Chen (2011) emphasizes the importance of paying attention to the inner dimension of humans. He claims that going deep into the inner dimension is necessary for personal fulfillment and social responsibility in the changing world. Ono (2011) argues that some of the factors which strain old systems to the point of collapse are not necessarily external forces but crucial internal problems of humans. He discusses short-term temptations and personal stakes as examples of such internal problems. As the solution to the Global Megacrisis, Motlagh (2011) presents character virtues such as personal responsibility, transcendence, hope, love, and wisdom as necessary for a heightened future consciousness.

The most important reason for which warnings are issued, and possibilities of collapses are seriously discussed, is to prevent negative forecasts from coming true. The underlying assumption is that such warnings should act to alter attitudes and actions of both the people and societies concerned before terrible consequences actually occur. Unfortunately, it is often the reality that people do not necessarily react to the warning in such an expected way (Ono, 2011). Instead, if the danger being warned against is not at hand, he/she tends to forget the warning. Instead of trying to avoid the danger, people think that the warning might turn out to be true in the future, but turn their attention back to the present, which is *still safe*. Because of this behavior, the path leading to the undesirable future can be difficult to alter.

The Integral Operating System or Integral Map (Wilber, 2006) provides us with an analytical framework of four quadrants consisting of combinations of interior, exterior, individual and collective. Slaughter (2010) comprehensively clarifies that most foreseen collapses and many transition strategies are located in the Cultural

quadrant (Interior-Collective) and the Social quadrant (Exterior-Collective) of the map. He argues, however, that the causes of most collapses stem rather from the Intentional quadrant (Interior-Individual). He considers that the unique *inner* worlds of individuals have not yet been explored enough to understand human identity, purpose and motivation in this context.

Causal Layered Analysis (Inayatullah, 1998, 2002) also helps us to understand issues in a society not only at the litany layer, where they are observed, but also at deeper layers, where the internal worldviews and myths, which are associated with the issues, are analyzed.

One of the recent collapses that shocked the world and revealed the danger of new technology was the explosion of nuclear plants in Fukushima, Japan, in March, 2011. At the surface, it was understood as an unfortunate incident caused by a huge earthquake and the resulting *tsunami*. This incident, however, requires a deeper analysis because the degree of the disaster was threatening not only to Japan but also the world. After this disaster, Germany, recognizing how risky the nuclear technology was, decided to advance the time when they would end nuclear power generation (Asahi News Digital, 2011). Curiously enough, though, a similar decision has not been made in Japan, which has been facing the aftermath of the disaster for more than four years. This paper explores the root causes of the disaster and of Japan's reluctance to change. It will analyze a compilation of over 300 newspaper articles related to the Fukushima incident, identify key stakeholders depicted in those articles, examine how they have been involved in bringing about crises and collapses, and look into deep aspects of the disaster by paying attention to the internal worlds of human beings.

Aftermath of the Collapses in Fukushima

As the world knows, Japan experienced two serious disasters at the same time on March 11, 2011. A large number of villages and towns were engulfed by the huge tsunami that was triggered by a magnitude 9.0 earthquake in the Pacific Ocean. The lives of over 18,000 people were lost. As of June 10, 2015, an additional 207,132 disaster victims have still not returned to their old homes[1].

The earthquake and tsunami damaged the power cables and cooling systems of the Fukushima Daiichi Nuclear Power Plant and, as a result, three of the four reactors ruptured. On the one hand, it was very unfortunate for Japan to be hit by the huge earthquake and tsunami, both of which were beyond our prediction and control. On the other hand, the damage to the nuclear reactors was a completely different type of disaster; the possibility of such events had been warned of for decades.

The most devastating reality is that the people of Fukushima and the neighboring prefectures have been exposed to radiation. It is feared that they might gradually develop many sorts of serious illnesses due to this single collapse. The number of people exposed to radiation is in the order of millions. All of a sudden, the Fukushima collapse changed the direction of the lives of this large number of people. We will also never be able to restore the land to its condition before the collapse. Radioactive substances emitted from the power plant and carried by the wind fell over a large part of Japan. These substances will continue to release radiation for decades to come. How to live safely in these conditions must be the most critical issue for people in Japan. Such an issue was beyond our imagination

before March 11, 2011. We cannot return to those safe old days again.

The collapse has created chaos in the daily lives of the residents of Fukushima. Farmers have become unable to grow safe food in the agricultural lands over which invisible radioactive substances have fallen. Fishermen have no idea where they can catch fish that are not contaminated by radioactive ash. Many companies left Fukushima and many workers lost their jobs. As the government has neither been willing to issue directives for the evacuation of the residents of Fukushima nor provided them with sufficient information about the contamination level in different areas of the prefecture, the final decision on whether or not to evacuate to other prefectures permanently is put solely on the shoulders of each family. Some families broke down because of the different opinions among their members regarding where the family should live. In those families who decided to stay in Fukushima, children are the most susceptible to the effects of radiation. As it may take years, or even decades, for the negative effects of radiation to appear in the human body, no one can tell how seriously the radiation may damage the DNA of the children and older people who will stay in Fukushima (Shukan Kinyobi, 2011).

Stakeholders of the Fukushima Collapse

One of the major newspaper companies in Japan, called "Tokyo Newspaper", is known as a media company with the most neutral stance in relation to power holders. Two days after March 11, 2011, a special editorial desk in the company began to write articles focused on the Fukushima collapse. In 2012, they edited a book titled Hi Genpatsu: From 'Fukushima' to 'Zero'. The book contains 382 articles published in the newspaper since March 13, 2011. The book is a detailed trace of how the aftermath of the Fukushima collapse developed. It also provides readers with historical backgrounds so that readers know why so many nuclear power plants, including Fukushima's, have been built all over Japan, a nation very often hit by earthquakes.

We analyzed those articles to find out which individuals or organizations were written about, what comments, actions, attitudes of theirs were reported, and the relationship between those individuals or organizations and the collapse, if addressed. We define as a stakeholder any person or any organization that is associated with the nuclear power generation industry in Japan and that has something significant to say about nuclear power generation from a different point of view. In Table 1, the left column lists all stakeholders written about in the articles.

Table 1. *Stakeholders of the Fukushima collapse*

Stakeholder	Percentage of the articles addressing the stakeholder	
	Against (%)	For (%)
Academic conferences	1	0
Electric power companies	0	20.9
Foreign countries	2.7	0
Former plant engineers	3.6	0
Individual politicians	3.6	0
Japan Federation of Economic Organizations	0	1.8
Journalists	3.6	0
Local governments	1.8	0.9
Mass media	0	0.9
NPOs/Ant-nuclear activists	10	0
Researchers/Professors	10.9	3.6
Residents near other nuclear power plants	1.8	0.9
State government	0	32.7
	48.2	61.8

The heading 'Against' indicates that the comment, action, or attitude of the stakeholder was depicted as against nuclear power generation. The heading 'For' indicates the opposite. The right two columns show the percentage of the number of times the stakeholder was written about in the articles in the book. For instance, 10.9 percent of the articles were about researchers/professors who were against nuclear power generation and 3.6 percent of the articles were about researchers/professors who were for nuclear power generation. The sum of all percentages in the Against column is 48.2 and the sum in the other column is 61.8. As some articles wrote about stakeholders on both sides, the total percentage exceeds 100.

From the 382 articles, we identified three key groups of stakeholders (i.e., individuals and organizations) that were closely associated with the occurrence and non-occurrence of foreseen collapses. First, there are people and organizations that contributed to an increase in the probability that nuclear collapses would occur. A majority of these stakeholders conducted themselves in a way that made it difficult for the public to see the negative effects. As a result, the chance that collapses would occur steadily increased. We refer to this first group as the 'Accelerators' of crisis. Second, we have the 'Inhibitors' of crisis; those who foresaw the dangerous consequences of the present status quo and who made serious efforts to prevent foreseen collapses from becoming a reality. They have a much more longer-term and broader perspective than the Accelerators. Lastly, most of the rest of the people and organizations, that have not been reported in the articles but really exist, are described as the 'Non-participants'; they have heard about the possibility of a collapse, and may even have some knowledge of it, but they have little will to do anything about it. Even if a certain collapse would have a significant, directly negative impact on them, they tend to regard it as something happening somewhere else or hope that somebody else will work to prepare for it.

While the major purpose of all warnings against possible collapses is to prevent them from happening in the future, each of the three kinds of stakeholders interprets warnings quite differently and, as a result, reacts quite differently.

Reactions of the Stakeholders to the Fukushima Nuclear Collapse

By sorting the percentage in the right column of Table 1, we get Table 2. In this table, we see that many articles were about a few stakeholders, such as state government, electric power companies, researchers/professors[2], and the Japan Federation of Economic Organizations. They have promoted the nuclear power generation industry in Japan for the past 50 years. In the context of the Fukushima collapse, they were Accelerators of the crisis. Tokyo Newspaper (2012) reported what they had done before the Fukushima collapse and how they have been responding to it since then.

Table 2. *Rank order of stakeholders 'for' nuclear power generation*

Stakeholder	Percentage of the articles addressing the stakeholder
State government	32.7
Electric power companies	20.9
Researchers/Professors	3.6
Japan Federation of Economic Organizations	1.8
Local governments	0.9
Mass media	0.9
Residents near other nuclear power plants	0.9
Academic conferences	0
Foreign countries	0
Former plant engineers	0
Individual politicians	0
Journalists	0
NPOs/Ant-nuclear activists	0

The Tokyo Electric Power Company (TEPCO) that owns and operates 17 nuclear power plants in the northern part of Japan, including Fukushima, and the Japanese state government have been driving the policy and business of nuclear power generation. In addition, Schools of Engineering of the University of Tokyo and Kyoto University – the two most prestigious state universities in Japan – have produced the nation's best and brightest researchers and professors in the nuclear field. Since the time of the nuclear collapse, however, TEPCO officials have not yet come up with an effective solution to deal with the meltdown that occurred in the few nuclear power reactors, and they have not completed the removal of used nuclear fuel rods in power plant 4 to a safer place. They have continued to fail to prevent radiation-polluted water from flowing into the ocean and groundwater. They have so far been amazingly incapable of getting this set of serious problems under control.

For the past several decades, they had dismissed every word of caution about the possibility of a disastrous accident at a Japanese nuclear power plant. They always insisted that such an accident could never happen. When it really did happen in Fukushima, we all realized that the warnings had been close to reality, whereas the claims by TEPCO and the government had been pure myth.

In his book, Tanaka (1990) discloses things that were handled secretly in the nuclear industry in Japan. From the late 1960s to the late 1970s, he worked for a company that manufactured nuclear pressure vessels. At one time, the company failed to manufacture a nuclear reactor pressure vessel in the specified shape. The company decided to hide their failure and commanded a few engineers and designers to work secretly to correct the distortion. Tanaka was one of them. The vessel was structurally compromised by having to be repaired and was later installed in power plant 4 at the Fukushima site. He admits that he did not spare any of his time to pay attention to the social and emotional implication of what he was engaged in as an engineer. Tanaka (1990) states that this is the common attitude in the nuclear industry and argues that a lack of empathy towards people outside the industry is the factor that has made nuclear power generation most dangerous.

The Fukushima collapse exemplifies the fact that, although natural disasters such as earthquakes and tsunamis could not be avoided, any human-induced collapse could have been prevented from happening if warnings had been acted upon seriously.

By sorting the percentage in the middle column of Table 1, we get Table 3. This table presents a variety of stakeholders, excluding the bottom four, that have warned against the danger the nuclear power generation in Japan for the past 50 years. We refer them as ‘Inhibitors’ of crisis.

Table 3. *Rank order of stakeholders 'against' nuclear power generation*

Stakeholder	Percentage of the articles addressing the stakeholder
Researchers/Professors	10.9
NPOs/Ant-nuclear activists	10
Former plant engineers	3.6
Individual politicians	3.6
Journalists	3.6
Foreign countries	2.7
Local governments	1.8
Residents near other nuclear power plants	1.8
Academic conferences	1
Electric power companies	0
Japan Federation of Economic Organizations	0
Mass media	0
State government	0

For stakeholders such as researchers, professors, a variety of NPOs, anti-nuclear activists, engineers who were once inside the nuclear power industry, and several politicians, the Fukushima collapse was too shocking to express their emotions. One activist who had waged an opposition movement in Fukushima since the 1970s says, "Someone told me I must be proud of what I have been speaking up. Not at all. I am suffering with a sense of powerlessness because I did not succeed to prevent the disaster" (Tokyo Newspaper, 2012, p. 84). One journalist says, "I have no words to express as what I had been warning against the *Ikata* nuclear power generation plant (in Ehime prefecture) was made real in Fukushima prefecture instead" (Tokyo Newspaper, 2012, p. 174).

These stakeholders had warned that there could be a major accident at a nuclear power plant in Japan. They knew that no technology was free from errors or the chance of malfunction. They had cautioned that it would be a disaster if radioactive substances were to be emitted over Japan. Some of them resorted to legal action to attempt to stop the operation of nuclear plants in their communities. Others waged a campaign against building nuclear power plants and/or nuclear waste disposal facilities in their towns. Unfortunately, both kinds of preventive effort were ineffective.

The main reason that their protests were unsuccessful was the fact that the government and TEPCO have worked very closely as a coalition to support the nuclear industry in Japan. The government is the strongest power holder in the public sector, and TEPCO is the most influential company in Japan's private sector, because most industries in and around Tokyo depend on electricity supplied by TEPCO.

The Fukushima collapse made all stakeholders in Table 3 realize, with sadness, how little impact their campaigns had had on the development of nuclear power in Japan. Nevertheless, as Japan still has more than 50 nuclear power plants and continues to be very often struck by natural disasters, such as typhoons, earthquakes

and tsunamis, they have already stood up once again in order to prevent the next nuclear power plant collapse.

The Fukushima collapse definitely forced many Japanese to wake up. Before the collapse, most Japanese did not pay attention to where and how the electricity they were using was generated. They found it a very sad irony that residents of Fukushima prefecture and the prefectures surrounding it were exposed to radioactive substances most, while all of the electricity generated by the Fukushima plants was supplied to the areas in and near Tokyo. Since the collapse, some have become keenly aware of the implications of using electricity as though it were an infinite resource. They were also shocked to find out that their living area could become the site of the next nuclear collapse if the nearest nuclear power plant were damaged in some way. Some of them have begun to join the opposition movement in order to protest against the government's energy policy, which still favors nuclear power. They gather near the Prime Mister's office and the parliament house every Friday night (Tokyo Newspaper, 2012).

It is often believed that if a collapse really happened, people and organizations could not help but reflect on what wrongs they had done and would begin to take a different attitude and actions towards solving the key issues. Unfortunately, the reality is that the remaining Japanese continue on their old course. They may view the collapse as a disaster that happened in a distant place, and they are unable to view it in terms of a collapse that could have happened to them. They were clearly shocked by what happened, but did not regard the collapse in Fukushima as an important trigger towards a new direction for the future of Japan (Takahashi, 2015). Another unexpected, and more serious, reality in the context of the nuclear collapse was the reaction of the stakeholders who had supported nuclear power. After it was clear that they had pushed the causes of the collapse, the people of Japan expected that they would feel guilty for having proclaimed that all nuclear power plants in Japan were disaster-proof and for having disregarded the concerns of the other stakeholders against nuclear power. We like to believe that human beings always learn lessons from mistakes and failures, but the past four years have repeatedly shown that the Accelerators do not act in that way and have not changed their mindset.

Slaughter (2010) presents two similar examples of the Accelerators dishonestly responding to collapses. The first regards an earthquake in China in 2006, which killed some 69,000 people. The disaster had been accurately predicted by five leading seismologists:

> "The issue here is not simply that forecasts were dismissed, which is scandalous enough, but rather that after the event, instead of acknowledging the oversight and correcting the process that enabled it, the Chinese government chose to close ranks, protect itself and, in so doing, avoid learning from tragedy "(p. 30).

Another example was to be seen in the aftermath of the Chernobyl incident:

> "The meltdown of the nuclear reactor at Chernobyl did not lead to the winding down and eventual abandonment of that technology. Rather, it led to industrial and technical fixes that, even now, allow authorities all over the world to conclude that nuclear reactors are 'safe' " (p. 31).

In Japan, the Accelerators have been demonstrating the same attitude. They seem to have neither an accurate understanding of what terrible impacts the collapse had, and continues to have, on Japan nor a sense of responsibility for those consequences. They have continued to hold firm to the status quo and have worked in concert to prevent the voices of the Inhibitors from being heard after the collapse. One symbolic incident initiated by the Accelerators was that the then Prime Minister Naoto Kan was forced to resign. Based on his understanding of the possibility of second and third collapses at other nuclear power plants, he ordered, using his discretionary powers, that Chubu Electric Company, another regional monopoly electric company like TEPCO, stop the operation of its *Hamaoka* nuclear power plants. Those power plants, it had been warned, were the most susceptible to a big earthquake. Politicians, the Japan Federation of Economic Organizations and the mass media, which were all Accelerators, launched an aggressive campaign criticizing PM Kan's decision-making process, as well as his other words and actions surrounding the disaster (Tokyo Newspaper, 2012, pp. 297-300). This incident demonstrated a very unfortunate characteristic of the Accelerators; they would not even rethink the implications for others of pressing on hard with their goal. If the occurrence of a collapse, which must be the ultimate proof of the wrongness of the conduct of the Accelerators, cannot change their thinking and actions, what else could be done to prevent a future collapse?

Sense of self-worth

The reality that the collapse of the Fukushima Daiichi Nuclear Power Plant has not yet changed the thinking of the Accelerators, and of some Non-participants, must be considered an enormous challenge for futurists, because it demonstrates that there are people in a society who not only don't take warnings seriously but also would not change their thinking *even after the occurrence of a collapse*. This reality falsifies two of our common assumptions: that a warning is effective to prevent bad consequences, and that even those who had not listened to a warning would finally understand its meaning when the negative consequences warned of became reality. How could these people react in such an illogical way?

Shannon and Weaver's communication model (1949) explains that information from the sender is conveyed to a receiver in order for it to somehow influence the receiver. The disaster in Japan and its aftermath have shown that there are stakeholders who are immune to receiving any crucial information. According to Shannon and Weaver's communication model, we can see that these people consider what is sent to them not as 'information' but merely 'data'. Data can be leveled up to meaningful information only when they contain something that stimulates interest in the receiver. If what the sender expects the receiver to understand does not resonate with the receiver, it stays at the data level and cannot have any meaningful impact on the receiver. This fact indicates that, regardless of how often, how seriously, and how thoroughly futurists and the Inhibitors disseminate warnings about coming crises as important and meaningful information, the disinterest on the receiver's side lets the warnings come and go merely as data.

Tough (2002) analyzes why many people, with or without intention, act in ways that hurt our future. He writes that the time they are focused on is the present, today, and the here and now. When someone focuses on some specific thing rather than

on others, it is because he/she either likes it or dislikes it. Chopra (2006) states that humans have a tendency to pay more attention to what they don't like instead of what they like. We could conclude that many people are attracted to the present not because they like it but because they don't like it. Then, why don't many people like the present? They may dislike something about or in the present. It may be something external to them, such as a job, role, human relationship, place to live or affluence. Given that any of these things can be the reason why an individual dislikes the present, it is arguable that the true reason should be something more fundamental, common to each of these reasons. It should be something internal to them.

Among a variety of conditions that can cause people to focus their attention on the present, one condition any person has been seeking since childhood is a sense of self-worth. Yamatake (2011) argues that a human being cannot help seeking others' recognition because it proves that he/she is worthy. He further states that one's desire to be recognized is the most fundamental desire of human beings. Hegel (cited in Yamatake) sees that the desire to be recognized favorably by somebody is the desire to confirm one's sense of worth (p. 77). When one's sense of self-worth is acknowledged and/or strengthened by others, Yamatake claims, it helps one to understand the meaning of his/her life, which is more important than all other things necessary for him/her to live daily. We can see that the sense of self-worth is a crucial condition for an individual to seriously long for.

Stone and Stone (1989) provide us with another explanation why a sense of self-worth is fundamental for human beings. They state that a newborn infant is so defenseless and vulnerable that it soon learns to establish some measures of control over the environment. For its survival, it depends upon adults. The most important adult is its mother. In order for the infant to survive in this new world, it needs to remind its mother of his/her worthiness and uses crying and smiling as measures to get its mother's attention.

Stone and Stone (1989) argue that personality develops as a way of hiding our true being – or *psychic fingerprint* – from others' sights. As the psychic fingerprint is generally regarded as one's vulnerability, people long for self-confidence to hide this vulnerability. Thus, they argue that the development of personality negates insecurity and favors self-confidence. Many people do much to avoid letting others detect their vulnerability. In order to bury their vulnerability, they try to raise the sense of self-worth as much as possible. Regardless of how hard they try, however, they can never achieve what they long for, because their sense of incomplete worth stems from the fact that they wouldn't accept the existence of their psychic fingerprint. Stone and Stone (1989) claim that ignoring the existence of our psychic fingerprint causes us to have a vague fear that we may be abandoned when it is discovered.

Struggling for a sense of self-worth, which occurs subconsciously inside many humans, dictates to a great degree their specific thoughts and actions. People cannot be fully happy in the present time if they have not yet obtained the condition – the sense of self-worth – in a satisfactory manner. Thus, people continue to be discontent with the present, somewhat dislike the present, and as a result, their attention is focused, not on the future, but in the present.

When people feel insecure because they sense that something is still missing within them, they react to this emotion by pursuing what Porras, Emery and Thompson (2006) call "Bright Shiny Objects (BSOs)". BSOs are all sorts of

material possessions, status, positions, fame, honor, achievements and power, which most people value. On the surface, it looks fine to possess many and better BSOs; at a deeper level, however, BSOs can never help an individual to secure a complete sense of self-worth. This is partly because there are always better BSOs than those the person has obtained so far, but mainly because the value of the obtained BSOs is dependent on others' assessments, which vary and can change at any moment. Therefore, as long as someone pursues BSOs, the person ironically puts him/herself in the very insecure position of being constantly evaluated by others. The more one relies on others, the more relative one's understanding of self-worth becomes. This is a very unstable and uneasy situation for anyone. Yamatake (2011) stresses that building one's identity based on and through others' approval is the very reason why a complete sense of self-worth can never be secured.

Authorities and leaders among the Accelerators are under such conditions. They are very aware that the basis of their present status and positions is power. They have acquired such power by playing key roles in the national undertaking of nuclear power generation in Japan. If they regretted their actions, strayed from their former paths, and took steps towards creating a different future, they would certainly risk to losing their already acquired power. Their sense of self-worth could begin to erode. This would be the worst scenario for them. Thus, they are not willing to change their past minds and attitudes.

The reason why those of the Accelerators under the authorities and leaders above would not change and would continue to conform to the latter has to do with the sense of self-worth, too. Humans have a strong tendency to obey authority. The Milgram experiment (1963) demonstrates that an individual may perform acts, which he/she would be very unwillingly to do of his/her own volition, without hesitation when commanded by an authority figure. It is argued that obedience to authority makes a person come to view oneself as merely an instrument for carrying out the authority's wishes and to easily set aside responsibility for one's actions (Milgram, 1963). Even when it became clear that what the authority had been conducting caused the devastating impacts on society, the individual agenda of maintaining the sense of self-worth built up in the respective organizational context makes him/her still follow what he/she is told to do by the authority. Unless the authority changes, many subordinates won't change either.

A distinctive characteristic of those who are obsessed with the sense of self-worth is that the target of their attention is always themselves. They pursue BSOs in the external world in order to maintain and increase the sense of self-worth in their individual, internal world. They believe in the myth that the more they can obtain from the external world, the more worthy they can become. Even if crises, warnings about crises, and disasters are occurring in the external world, they are regarded as non-BSOs matters. Therefore, there is little incentive for them to act on them appropriately. Yamatake (2011) states that an individual who is desperate to obtain affirmation from members of his/her group, organization or community can't stop conforming to what the entity is doing, even if he/she doubts, or even suspects the meaning of its conduct. Thus, for those whose first priority is to secure a sense of self-worth, all other matters, including creating a better future, are secondary.

Porras et al. (2006) write that in order for a society to be healthy and sustainable, it requires healthy and sustainable organizations, which should consist of people who realize the meaning of their lives. Porras et al. call these people "Visionary

people". One significant characteristic of visionary people is that they never live for self-interest and self-affirmation but live for a 'good cause'. They discover a certain cause and commit themselves to achieving it as one of their life goals, regardless of whether it is regarded as worthy by others. The important facts are that visionary people believe the realization of such good causes will definitely benefit society in the future and that they have little interest in establishing their identity by gaining praise from others along the way.

Collins and Porras (1994) analyze 18 world-class companies, which have been much more successful than other companies. These companies are called "Visionary companies". Visionary companies are very similar to visionary people in that they focus not on increasing their own value but on achieving a worthy cause for a society.

Internal Crisis and Societal Crisis

In the preceding sections, we have looked into how different groups of stakeholders perceive the present and the future. The Accelerators and Non-participants are preoccupied with 'fear' in the present. For the Accelerators, it is a fear that their sense of worth has not yet been sufficiently established and that there is a possibility that it may be jeopardized by others at any moment. For the Non-participants, this is a fear of the possibility that whatever condition they are now content with may deteriorate tomorrow. The root cause of such fears is anxiety that their psychic fingerprint might be disclosed one day (Stone & Stone, 1989).

For those who fear something, the present is always the potential time when the concerned negative event could happen. Thus the fear of a negative event embedded in the present drives them to long for any kind of BSO so that they can feel assured that their tomorrow will be better. As Wilber's Integral Map (2006) shows, crises in the external world are a reflection of a crisis in the internal world. If a person struggles to achieve a satisfactory sense of self-worth as his/her priority, the person's mind prepares the best working ground for the ego. The ego prompts the person to carry out all kinds of offensive and defensive acts, many of which are detrimental to the external world. A warning about a coming crisis, and even the actual occurrence of a forewarned collapse, has little impact on the person. As long as the Accelerators and the Non-participants are preoccupied with an incomplete sense of self-worth, they have little space to be considerate to other people, to their society, and to human civilization.

What a person thinks and how he/she acts are largely dictated by the kind of questions repeating in his/her mind. Such questions determine what the person pays attention to and, as a result, form reality for that person. An Accelerator's question has to do with their own worth; A Non-participant's question is about personal status quo. Both questions point towards the questioner themselves. Thus, the direction of their thoughts and actions is always from the external to the internal. This is inevitable because they subconsciously know that they are hiding their psychic fingerprint – their own true being – inside, and their personality has pretended that nothing secret is hidden there (Stone & Stone, 1989).

A truly beneficial question for better futures is "What can I do for the sake of others?" This question contains little self-interest. As all those who have worked for others without expecting any return know, by working hard for the external, the

sense of self-worth, which is an important part of self-interest, is commensurately strengthened. By paying more attention to others than to oneself, one ends up fulfilling their sense of self-worth.

Slaughter (2011) and Chen (2011) state that solutions to the Global Megacrisis won't emerge unless we understand more about the inner dimension of humans. We have discussed that what is critical in the inner dimension is the sense of self-worth. As long as people are 'run by' that sense, information and necessary actions to prevent a societal crisis and to create a better future society continue to be regarded as secondary. Thus, in any effort to encourage people to pay more attention to the future and to become more future-oriented, it is crucial to help them understand what is going on in their internal world so that they can begin to view their external world differently and to align their thoughts and actions towards a human-made, crisis-free, better future.

Notes

1. Accessed on July 8, 2015:
   http://hinansyameibo.seesaa.net/category/10331937-1.html
2. Most of them receive research fund from funding organizations with which electric power companies provide money.

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