



Green Watch

A Civil Society Environmental White Paper
2020



Green Alliance Japan
(GAJ)



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Preface:

Understand it as Our Own Problem and Act for Change!

In this critical situation where various environmental threats, such as climate change, have reached increasingly dire proportions and the very survival of humankind is in question, it is essential to solve these issues by fundamental policy changes based on ethical, political and science-based decision-making. And for that purpose, our wisdom will be key to successfully shift norms in society. However, fundamental policy changes have only inched forward in Japan, as the Japanese government continues to prioritise policies that emphasise short-term economic growth. Deeply concerned about these deplorable policy trends, environmental NGOs/NPOs in Japan established the Green Alliance Japan (GAJ) in June 2015 with the purpose of acting and advocating together to overcome various environmental issues and to build a democratic, fair, and sustainable society that pays careful attention to the environment (which is the foundation for all life and human activities).

June 2020 will mark the sixth year since the establishment of the GAJ. Over the years, the environment has increasingly deteriorated, and with the addition of social issues such as widening inequalities, we are falling far short of our vision of a sustainable society where all people can safely and securely lead spiritually-rich lives. Meanwhile, even as we citizens are concerned about the issues of climate change and plastic waste, we often forget that the root cause of these problems lies within us and unwittingly lead lives that increase the burden on the environment.

We are all victims and perpetrators

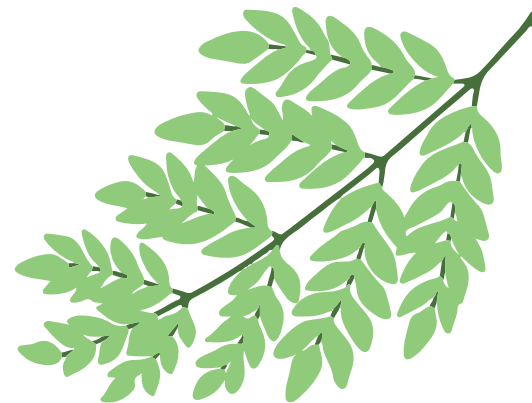
With respect to climate change, for example, CO₂ emissions from households amount to about 5% of Japan's total emissions, with about half coming from electricity use and 22.3% from household gasoline use.

However, when we look at Japan as a whole, thermal power generated from fossil fuels accounts for 80% of the total emissions, although the methods used to generate power differ depending on the power company. This means that, as we use electricity, we are indirectly emitting massive amounts of CO₂. By contrast, although renewable energy is considered to be the "ace in the hole" for mitigating global warming, it has not become popular in Japan. In addition, since nuclear power emits almost no CO₂ emissions, some people still promote this form of power generation as a measure to prevent further global warming. However, we have experienced a nuclear disaster in Fukushima, which has deprived many people, including future generations, of their lives, health, and assets. Nuclear power may have devastating implications for local communities and nature, and treatment methods and nuclear waste sites in Japan have yet to be determined. Japan itself is also a nation prone to

earthquakes. Thus, the use of nuclear power should be suspended immediately.

It is important for us to promote energy efficiency and choose the source of our electricity wisely, because, although it supports our comfortable and convenient lifestyles, electricity also puts a range of burdens on the environment through its production.

As for plastic, it has become an integral part of our daily lives and business activities. Each year, 400 million tonnes of plastic are produced worldwide, of which 9.1 million tonnes have become the cause of marine pollution. In Japan, about 70 kg of plastic is used per capita annually, with single-use plastic litter causing waste problems and destroying marine ecosystems. Since plastic is produced from petroleum, and the chemical substances that are frequently used as plasticising agents interfere with male sex hormones, we may need to halt the use of single-use plastic for the time being, as it has a profound connection not only to waste problems, but also issues related to climate change and chemical substances.



Re-examining and simultaneously transforming our lifestyles and socioeconomic systems toward environmental sustainability

Environmental issues stem not only from our lifestyles, but also from socio-economic systems. To solve these issues, we should fundamentally change policy directions.. We must revisit our human desires and values to make life “more convenient and more affluent”, and re-examine the economic systems (capitalism), science, and technologies that have made the constant growth possible.

Without realising it, our desires have expanded to the point where they exceed planetary boundaries. While not all of these desires are bad, in this finite global environment, we must control our desires that threaten to break through the planetary boundaries. We must operate within the limits of regulations even in a free and equal society, so that we can leave a better environment for the next generation.

Today’s economic systems are based on the principles of expansion and growth. However, in a finite global environment, it is impossible to continue expanding and growing. Nonetheless, we are expanding markets, captured by the conventional idea that forever encourages economic growth, and this has become the cause of a wide range of environmental issues.

Moreover, capitalism is causing not only environmental issues, but also problems with the concentration of wealth and economic disparity. A 2019 report by the international non-profit organisation Oxfam contains shocking data showing that 26 of the world’s richest people own wealth equal to the collective assets of 3.8 billion of the world’s most impoverished. Expanding the economic scale does not mean that it will lead to the well-being of all people, and the “trickle-down” theory is unrealistic. The economy, which should be a means of enhancing people’s well-being, is causing disparities, as well as human rights and environmental issues, and many people have been pointing out the limitations of

capitalism and demanding that the system be re-examined.

The technological progress we have made since the Industrial Revolution has been remarkable. However, technology is a “double-edged sword”, because, although it is quite useful, it also carries the risk of causing great harm. In recent years, technology linked to a massive amount of capital and authority has often placed a significant burden on the environment. When developing and using technology, we must consider whether such technology truly contributes to the well-being of people and the sustainability of society, and whether it will not bring environmental burdens to the society. For this, society as a whole must engage in the process to decide on its appropriate development and use.

At the time of writing this White Paper, the novel coronavirus (causing COVID-19) has spread around the world, resulting in the loss of countless precious lives and causing an unprecedented level of damage to society and the economy. Similar to environmental issues, this is also intimately related to our lifestyles and globalised socio-economic systems. To address COVID-19 and the threat of similar pandemics, in addition to our consideration of others, ethical, political and science-based decision-making will be absolutely necessary. Again, our wisdom will play an important role to change policies toward a large-scale social transformation.

We hope that everyone will gain an accurate understanding of the current state of the environment and take action on their own to make a substantial societal change, rather than relying on others to act. In this way, we can ensure that people all over the world can live safely in a resilient, democratic, fair and sustainable society, and leave the environment and society in a better state for the next generation.



Chapter 1

Recent Trends toward a Decarbonised Society

Section 1. From “Climate Change” to “Climate Crisis”

In 2019, Japan was hit by a series of serious climate disasters, including Typhoons Faxai in September and Hagibis in October. Japan, which has repeatedly suffered climate disasters that have been said to occur once every 50 to 100 years, was ranked as the country most affected by climate change in the world in the “Global Climate Risk Index 2020” published by the German environmental NGO Germanwatch. result in deforestation and a decline in species and populations.

1. Exponential extinction of species

The issue of climate change is increasingly being referred to as a current climate crisis rather than something that may occur in the future. The UN Climate Action Summit 2019 was held at the United Nations headquarters in New York on 23 September 2019 under the leadership of Secretary-General António Guterres. The Secretary-General called on all leaders to gather at the UN Climate Action Summit with concrete and realistic plans to enhance their Nationally Determined Contributions (NDCs) by 2020, in line with reducing greenhouse gas emissions by 45% over the next 10 years, and to achieve net zero emissions by 2050.

The 25th Conference of the Parties (COP25) to the United Nations Framework Convention on Climate Change (UNFCCC) was held in Madrid, Spain, after the meeting was hastily relocated from Santiago, Chile one month before it was due to take place. A decision called the “Chile Madrid Time for Action” was adopted at the conference; however, consensus could not be reached on some of the pending issues in the Paris Agreement’s implementation guidelines, and the meeting concluded with the decision to table unresolved issues to the following year.

2. Delayed Response by the Japanese Government & Actions by Local Governments

(1) “Long-term Strategy under the Paris Agreement” decided behind closed doors

In June 2019, the Japanese government submitted the country’s “Long-term Strategy under the Paris Agreement” to the Secretariat of the UNFCCC as its long-term low greenhouse gas emission development strategy under the Paris Agreement. However, the strategy repeatedly emphasises “disruptive innovation”, as if the problem can be solved by problematic technologies that have no clear prospects for practical use such as carbon capture utilisation and storage (CCUS), space solar power, and innovative nuclear reactors, justifying the continued use of fossil fuels and nuclear power.

In addition, the process leading up to this decision is also considered to be problematic. A series of expert meetings set up to formulate the long-term strategy was closed to

the public. In response to a request for information disclosure, all the remarks and comments by expert members had been redacted from the over 160-page meeting minutes. Furthermore, public comments were perfunctorily invited over a period of less than three weeks between 25 April and 16 May, which included the traditional long holiday period and a Cabinet decision was reached in June without modifications to the content.

(2) Japan criticised by the international community for its use of coal

In 2019, the global cry to phase out coal grew louder than ever. Since 2012, 15 coal power plants in Japan had newly been put into operation, with 15 additional plants under construction. The fact that Japan is the only developed country that has increased the number of coal power plants over the past 10 years and has hefty investments

and loans in coal power overseas, prompted the UN Secretary-General to refer to the situation as an “addiction to coal”.

Environment Minister Shinjiro Koizumi attended the UN Climate Action Summit and COP25 and stressed that he was aware of the criticism Japan received for its reliance on coal, but in the end, was unable to show any direction forward or a concrete plan for cutting back on the country’s use.

(3) Nonexistent action to enhance Japan’s reduction targets

The most pressing issue for climate change policies is the need to raise targets in the NDCs. Japan’s greenhouse gas emission reduction target is a 26% reduction by 2030 as compared to 2013, which is equivalent to about an 18% reduction from the 1990 base year under the Kyoto Protocol. However, the Japanese government had made no attempt to revise its NDC and was considering to re-submit the NDC without changing the target. Concerned about this situation, the Climate Action Network Japan (CAN-Japan), a network of environmental NGOs involved in climate change issues, issued a statement to call on the Japanese government to raise the nation’s greenhouse gas emission reduction targets. (Note: The Japanese gov-

ernment submitted the NDC to the UN on 30 March 2020, and the target remained unchanged.)

(4) Commitments to net zero carbon and climate emergency declarations by local governments

Carbon-zero declarations by local governments were prominently in evidence in 2019. In succession, the heads of local governments issued statements on net zero carbon emissions by 2050. By the end of February 2020, a total of 74 local governments, including the Tokyo Metropolitan Government and Osaka Prefecture, have declared their commitments. These localities have a combined population of about 56 million (44% of the total population).

In addition, following in the footsteps of Iki City in Nagasaki Prefecture which declared a “climate emergency” in September 2019, climate emergency declarations were announced by Kamakura City (Kanagawa Prefecture), Haku-ba Village (Nagano Prefecture), Nagano Prefecture, Ooki Town (Fukuoka Prefecture), Chikuma City (Nagano Prefecture), Hokuei Town (Tottori Prefecture), Sakai City (Osaka Prefecture), and Kanagawa Prefecture by February 2020. It will be vital for civil society to monitor these movements to ensure that momentum can be carried forward beyond a simple declaration.

3. Actions by Youth

Millions of young people are engaged in climate action. Greta Thunberg, who crossed the Atlantic by boat to attend the Climate Action Summit in New York, delivered scathing criticism to the policymakers gathered at the summit, warning them of the need to take immediate action. A total of 7.6 million people across the world took part in global actions around the time of the Climate Summit, urging world leaders to (1) completely phase out the use of fossil fuels, (2) end deforestation and forest fires in the rainforests of the Amazon and Indonesia, and (3) make

an immediate transition to a fair and equitable society using 100% renewable energy.

Even in Japan, young people are starting to organise climate strikes every Friday (Fridays for Future (FFF)). At the time of the Global Climate Strike on 20 September 2019, marches were held in 23 prefectures from Hokkaido to Okinawa with the participation of more than 5,000 people who called on the national and local governments to strengthen climate policies.

Section 2. Realising a Sustainable Society Based on 100% Renewable Energy

In 2019, Japan was hit by a series of serious climate disasters, including Typhoons Faxai in September and Hagibis in October. Japan, which has repeatedly suffered climate disasters that have been said to occur once every 50 to 100 years, was ranked as the country most affected by climate change in the world in the “Global Climate Risk Index 2020” published by the German environmental NGO Germanwatch. result in deforestation and a decline in species and populations.

1. How Much Progress Has Been Made in Introducing Renewable Energy?

Japan lacks a clear long-term target for introducing renewable energy (RE) and lags far behind its counterparts in Europe. Inadequate policies advocating the use of RE between the 1990s and 2010 have suppressed its share in annual power generation to about 10%. Although the Feed-in Tariff (FIT) scheme launched in 2012 following the Fukushima disaster on 11 March 2011 increased the share of RE (mainly solar power) to about 17% in fiscal 2018, it remains as low as 24% in the 2030 energy mix, which forms the premise of the Strategic Energy Plan (Cabinet decision in 2018). No consideration has been given to raising the targets for introducing RE, and long-term targets for 2050 have not yet been set.

In comparison to Germany, which has a similar land area and economic power as Japan, the introduction of RE appears likely to lag behind by at least 10 years, mainly because of delays in setting clear RE targets and related energy policies, as well as the development of infrastructure and markets for RE. Therefore, a bold shift in energy policy is required to make the transition to decarbonisation and 100% RE. This includes fully implementing electricity system reform by 2020 and setting RE as the major power source, while also raising targets for 2030 and establishing medium- to long-term targets for 2040 and 2050.

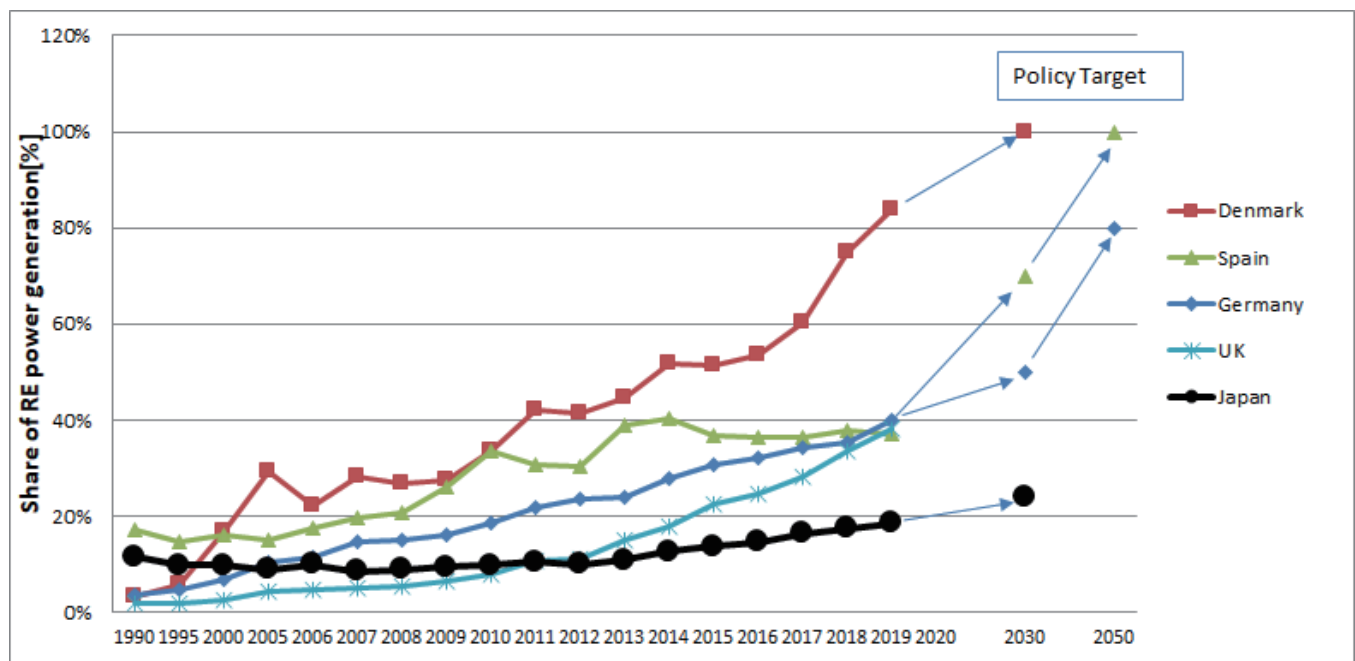


Figure 2-1-1: Changes in the share of RE in annual power generation in Europe and Japan
Source: Created by the author based on statistical data from the EU (EUROSTAT, Agora Energiewende, etc.)

2. Actions Set in Motion for the Use of 100% Renewable Energy

Since 2007, a project known as “Energy Sustainable Zone” has been conducted annually to clarify the status and trends in the RE supply by region in Japan. By identifying those regions that supply proportionally greater amounts of RE through regional assessment of prefectures and municipalities, sustainable areas can be increased in the future. According to data on sustainable zones for energy published in March 2020 (based on figures from fiscal 2018), it is estimated that 186 municipalities, which are called “electricity sustainable zones”, are supplying RE at a share that exceeds 100% of the electricity demand.

More than 30 Japanese companies have already declared their commitment to the use of 100% RE under RE100, a global corporate leadership initiative to promote 100% RE. At the municipal level, in May 2019, the U20 (Urban 20), created by the leaders of the world’s largest cities presented recommendations to the G20 Osaka Summit. This communiqué, signed by Tokyo and Osaka together with the leaders of the world’s foremost cities, stated that the mayors “commit to decarbonising the energy grid, with 100% renewable electricity by 2030, and 100% renewable energy by 2050”.

The Global 100% RE Platform in Japan was launched in 2017, with a Japanese language website set up for domestic use. In November 2017, the Chiba University of Commerce announced its declaration to become a university powered by 100% RE, and has promoted the introduction of LED lighting and solar power. By February 2019, the university had achieved one of its goals by implementing solar power generation projects equivalent to its annual power demand. The university will continue to work towards 100% RE in final energy consumption (including gas). In October 2019, the Green Purchasing Network (GPN), the Japan Climate Leaders’ Partnership (JCLP) and the Institute for Global Environmental Strategies (IGES) launched a new initiative for small- and medium-sized enterprises (SMEs) and local governments (business offices only) to declare conversion to RE100 based on the same standards as the RE100 for large corporations.

3. Full-scale Introduction of RE and Issues with the Reform of the FIT Scheme

More than seven years have passed since the FIT scheme was launched in 2012 as a powerful tool to expand the use of RE, with the amount introduced increasing mainly in solar power. Under these circumstances, a Bill to fundamentally reform the FIT scheme from fiscal 2022 (part of the Bill for the Act of Partial Revision of the Electricity Business Act and Other Acts for Establishing Resilient and Sustainable Electricity Supply Systems) was deliberated (and approved) in the Diet. Under this new system, it is necessary to aim at disseminating true “locally-utilised renewable sources” that emphasise regionally-based energy projects and social consensus-building in order to utilise the abundant resources that exist in the region and allow RE to become a major power source. For this reason, the continued use of the FIT scheme for “locally-utilised renewable sources” (small-scale solar power, small hydro-power, geothermal power, and biomass) is being considered under certain conditions after the “requirements for local use” have been defined. However, with the addition of requirements for local use, such as self-consumption and use during disasters, low-voltage solar power generation systems (less than 50 kW) in particular, must achieve at least a 30% self-consumption ratio ahead of schedule from fiscal 2020, with the exception of ‘solar sharing’ (Agrivoltaics) that meets certain requirements. This means that the full FIT buy-back scheme, which has backed the

spread of small-scale solar power in each region until now, will essentially be terminated. These requirements for local use do not include ones that are important in evaluating community-based energy projects, such as the “three principles of community power” and building social consensus.

In addition, the process of local consensus building should be firmly entrenched in certification requirements for power generation plans in order to avoid problems with the development of large-scale solar power generation projects that are commonly seen in some areas. Active information disclosure and the participation of local stakeholders should also be encouraged.

In addition, assuming that there are a number of flaws with the current bidding system, the hasty transition to a FIP (feed-in premium) scheme and market integration may put the brakes on the solar power market, which has expanded over the past years, and may also deal a fatal blow to the wind power market, which lags far behind the overseas market. For this reason, the current FIT scheme for wind power should be improved after the introduction targets for 2030 and beyond have been raised significantly, while the FIP scheme should be introduced after the path to expanding the market has become clearly visible.

4. The issue of sustainability in biomass power generation

The FIT scheme has resulted in a rapid increase in biomass power. Long considered to be “carbon neutral”, this assumption has been questioned in recent years. Certifications for power plants operated using palm oil have jumped sharply as a result of the FIT scheme, and there are about four currently in operation. The number of thermal power plants using imported wood pellets and palm kernel shells (PKS) has also increased rapidly. Unused domestic lumber was expected to be used under the FIT scheme, but problems related to collecting costs and stable procurement limited use to about 120,000 tonnes per year, and large-scale plans for the use of imported fuel grew rapidly. In 2018, imported wood fuel exceeded 2.7 million tonnes, and the future looks to be packed with plans for large-scale power generation projects by major corporations in trade and paper manufacturing.

Power generation using palm oil has been noted as having a variety of problems, including the depletion of tropical forests, exacerbation of climate change through the development of peatlands, land conflicts and human rights issues for workers, and competition for food. The Ministry of Economy, Trade and Industry set up a “Biomass Sustainability Working Group (WG)” in 2019, which showed that greenhouse gas (GHG) emissions from palm oil are close to that of petroleum, and, in cases where tropical forests and peatlands are developed, GHG emissions can be between 5 to 139 times higher than that. The WG proposed (1) GHGs as a future issue and (2) only recognised the Roundtable on Sustainable Palm Oil (RSPO) and the Roundtable on Sustainable Biomaterials (RSB) for certification. The WG indicated that the Malaysian Sustainable Palm Oil (MSPO) and the Indonesian Sustainable Palm Oil (ISPO) were not on par with the RSPO in terms of child labour, forced labour and securing workers’ rights. However, if RE does not have the expected effect of inhibiting GHG emissions, it is considered to be ill-suited as a target under the FIT scheme. It is necessary to focus on trends in how biomass power, which generates a large amount of GHG emissions, will be handled in the future. In recent years, scientists have pointed out that GHG emissions from woody biomass is higher than that for coal, and that there is a time lag issue in that it will take decades to accumulate the same amount of CO₂ amassed through

combustion that is instantly released, which will become net emissions unless the forest is regenerated. Clearing forests for fuel as an alternative to fossil fuels means turning CO₂ sinks into emission sources.

Imported wood pellets are mainly produced in Canada and Viet Nam, and imports from the east coast of the United States are expected to increase in the future. Despite the significant amount of lifecycle GHGs from woody biomass, there are serious reservations that it can be purchased through the FIT scheme at a high price, while discussions on sustainability are inadequate. Imported wood pellets should be made of materials with certification from systems such as that by the Forest Stewardship Council (FSC). However, the FSC certification is not made to evaluate biomass fuel, and therefore does not ensure the decrease of GHG emissions. In addition, as demand rises rapidly, there have been reports of cases in which logs and natural wood are being used as raw materials, and there are suspicions about fake certification, fuelling concerns about deforestation or forest degradation and the impact on local communities. Imports of wood pellets and PKS reached 1.06 million and 1.7 million tonnes respectively in 2018, and imported wood pellets are predicted to increase to 7 million tonnes in the future. It is difficult to see problems in overseas production areas, requiring more careful measures to be put into place.

The objective of the FIT scheme is to reduce environmental impacts, promote industries, and revitalise regions. Reliance on imported fuel is ineffectual in curbing climate change, and may even exacerbate it as a result of the development of peatlands and deforestation. Unlike domestic timber, which is expected to at least revitalise the forest industry, a large portion of electricity costs will flow out overseas, limiting its contribution to industrial promotion and regional revitalisation. The revision to the guidelines for biomass power generation in 2020 stated that lifecycle GHG emissions will be considered for new fuels as well as fuels that have already been certified. In the future, only efficient and effective “sustainable renewable energy” is expected to fall under the FIT scheme.



Chapter 2

Crisis in the Forests and for Biodiversity

Section 1. Why are Our Forests Falling into Decline?

1. Deforestation as a result of the development of agricultural land

In 2018, 12 million hectares of tropical forests were lost, resulting in the release of the tremendous amounts of CO₂ stored there into the atmosphere. If we think about the effect of deforestation in tropical nations in terms of national emissions, its greenhouse gas emissions rank third in the world, only after China and the United States. Eighty percent of deforestation around the world is a result of

expanding agricultural land, with vast swathes of forests cleared for the purpose of cultivating not only agricultural products, such as beef, soybeans, palm oil, and forest products that are known to contribute to deforestation, but also tropical plants that are now commonplace in our everyday lives, such as coffee, cacao, rubber, and cassava.

2. Deforestation associated with climate change

From 2018 to 2020, massive wildfires continued to burn around the world, including in California in the United States, Australia, and the Amazon in Brazil. In 2019 alone, California lost approximately 1,050 km² of land and New South Wales in southeastern Australia saw a loss of over 100,000 km² of land. The reasons cited for this loss include inadequate control systems for gas and power supply, cigarette butts and other forms of human carelessness, and conditions conducive to fires breaking out, such as the large amount of oil found in eucalyptus trees being set alight by lightning strikes, or other means. However, climate change is also considered to be a major factor.

The frequency of forest fires due to climate change—such as reduced rainfall, arid conditions, and rising temperatures, for example—also result in the emission of a large amount of greenhouse gases, trapping us in a vicious cycle that again promotes climate change. There is concern that climate change coupled with land development will continue to cause more serious forest fires, as well as result in deforestation and a decline in species and populations.

Section 2. Impact of Deforestation on Biodiversity

1. Exponential extinction of species

Many have noted the possibility that the Earth is facing a sixth mass extinction. In contrast to the mass extinctions of the past, extinction today is being caused by humans. The primary causes of extinction include changes in land use (deforestation, etc.), followed by over-exploitation and climate change. Living organisms in tropical forests are said to account for 50% to 80% of all organisms on Earth, and the loss of tropical forests is having a significant impact on biodiversity.

For example, most of the forest covering the entire island of Java where the capital of Indonesia is located has dis-

appeared, and the little that remains covers only 10% of the island today. Java is home to a great number of flora and fauna, such as the Javan leopard and Javan gibbons which only live in the forest belt on this island, which means that the loss of Java's forests represents the extinction of the island's endemic wild species. Unfortunately, this case of rapid biodiversity loss is one of many being observed around the world, and the gravity of this issue is described in assessments released by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).¹

2. Impact on local ecosystems and people's lives

Indeed, the impacts of deforestation on biodiversity do not simply stop with the extinction of species. For example, a fair amount of water flows into Tonle Sap Lake in the mid-western part of Cambodia from its catchment area during the rainy season. Fish lay eggs on the vast floodplain, and then migrate back to the lake. This is an important dynamic system for the habitat of freshwater fish, which are a considerable source of protein for people living in Cambodia. However, in recent years, the amount

of water flowing into the lake during the rainy season has diminished, and there have been an increasing number of years in which the floodplain area has decreased dramatically. The causes behind these changes have been noted as the effects of climate change, dam development upstream, and deforestation in the catchment area. There is concern that the trend in declining water volume will increase in the future, expanding the impact on people's lives.

Section 3. Roles of Forests on Climate Change Mitigation

Forests absorb CO₂ from the atmosphere and store some of it in trees and soil. Significant climate change mitigation effects can be produced by controlling deforestation to reduce CO₂ emissions, while also simultaneously restoring forests on land where they had once been lost to absorb CO₂ from the atmosphere. However, today, a large amount of CO₂ emissions continues to be released due to the loss of vast tracts of forest land. Naturally, actions require funding, but the amount of funding invested in nature-based climate solutions is only a small fraction of the total amount invested in the field of climate change and is far from reaching its full potential.

In order to limit temperature rise to below 2°C (or even lower to 1.5°C), we must promote the reduction of greenhouse gas emissions and absorption of greenhouse gas from the atmosphere. Technology is being developed to reduce emissions from fossil fuel use to zero and capture CO₂ released into the atmosphere. However, there are limitations to feasible technologies in the short term; the continuous emissions of CO₂ over this period shorten the time we have left each and every second. There is no need for major technological innovation for nature-based climate solutions, such as conservation and restoration of forests. It is these measures that will surely play a crucial role to create effects in the short-term.

Section 4. Our Actions to Protect Forests

As consumers, we can protect forests by choosing what we buy. Governance in tropical countries is generally weak, so we as consumers must take care to check whether the agricultural products we purchase have not been produced through forest destruction. Certification systems, if available, provide a good basis for making decisions. If such options do not exist, we could choose to reduce our consumption of such agricultural products. For example, beef has a significant impact on the environment, so why not have it only on special occasions?

Climate change and loss of biodiversity are issues that affect the future of the Earth and the human race, and forests have an integral role to play as a solution to these problems. We must envision a sustainable future, where agricultural production and consumption no longer result in deforestation. The world is heading in this direction, and Japanese consumers and all actors along the supply chain must take action.

1: For more information, please see the Summary for Policymakers for a couple of key IPBES assessments, shown below:

Regional Assessment for Asia and the Pacific:
<https://ipbes.net/assessment-reports/asia-pacific>

Global Assessment:
https://ipbes.net/sites/default/files/inline/files/ipbes_global_assessment_report_summary_for_policymakers.pdf



Chapter 3

Chemical Substances

Section 1. How Should We Deal with the Threat of Endocrine-disrupting Chemicals?

The EU finally took the historic first step of introducing regulations some twenty years after Dr. Theo Colborn co-authored *Our Stolen Future* in 1996, blowing the whistle on the disruption of hormones in the human body caused by artificial chemical substances. However, in Japan, endocrine-disrupting chemicals are no longer considered to be a problem, so this news from the EU was not taken up by the media nor has the Japanese government made any moves to introduce regulations. This chapter will report on the significance of the problems of endocrine-disrupting chemicals, as well as the current situation of countermeasures in Japan and the challenges faced.

1. What are “Endocrine-disrupting Chemicals”? What Kinds of Effects Do They Have?

Endocrine-disrupting chemicals (EDC) are artificial chemical substances that disrupt the normal messenger system of hormones in the body, causing a range of illnesses.

Paracelsus’ idea in the 15th century that “All things are poison, and nothing is without poison: the dose alone makes a thing not a poison” (or more succinctly written as “the dose makes the poison”) still forms the basis of risk assessments for chemical substances today. However, the EDC issue acts as the devil’s advocate to this basic principle. In other words, even a tiny amount of EDC, which might be considered safe by conventional standards, may affect human health by disrupting hormones.

For example, although organic phosphorus pesticides had been perceived as having no effect on humans at low doses, they have subsequently been found to disrupt thyroid hormonal functions even in small amounts. This disruption of thyroid hormonal functions has been shown to have enormous consequences for fetal brain development and has also been associated with postnatal cognitive decline and the onset of autism and ADHD. Chemicals such as bisphenol A (BPA) and phthalates are associated with obesity and have also been identified as the cause of obesity, diabetes and heart disease.

2. Movements in the EU and the Current Situation in Japan

Regulations for biocidal products and plant protectants (pesticides) were introduced in the EU in 2018. Phthalates and BPA were designated as substances of very high concern (SVHC) under the EU’s Registration, Evaluation, Authorisation and Restriction of Chemicals regulation (REACH) in 2017 and are regulated as substances subject to authorisation.

Meanwhile, Japan has been very slow to take any action. In Japan, regulations on EDCs when registering pesticides are non-existent. Therefore, when pesticides are registered, there are no requirements to submit testing data showing the presence or absence, as well as strength of any endocrine disrupting effects.

Under the Food Sanitation Act, the use of some phthalates is banned in appliances, containers and packaging, as well as for toys that children may put in their mouths; however, regulations do not exist for other products, and phthalates are used in large quantities as plasticising agent for plastics, such as vinyl chloride.

Although standards have been established for BPA under the Food Sanitation Act for appliances, containers and packaging made with polycarbonate, these standards do not take into consideration endocrine disrupting effects at low doses and no regulations are in place for other applications.

3. Recommendations to the Japanese Government

- An immediate ban on the use of EDCs for agricultural chemicals, as is the case in the EU.
- Labelling requirement for phthalates and BPA, strengthening of existing standards, and regulation of their use in canned goods, toys and school supplies, daily necessities, electrical products, cosmetics, housing construction materials, etc

Section 2. Progress in the Ministry of the Environment's "Japan Environment and Children's Study (JECS)" and Future Challenges

The Ministry of the Environment launched a large-scale cohort study called JECS in 2010 to clarify whether chemicals in the environment affect the health of children. The survey has since reached a turning point. Here, we will present an outline of the study and what has been learned so far.

1. What is the JECS?

The JECS is a large-scale, long-term cohort study that recruits 100,000 parents and children in Japan to analyse biological samples, such as blood and urine, breast milk and hair, and track the health of newborns until they reach the age of 13. The aim of the study is to clarify the effects of chemicals in the environment on children's growth and development. Based on the results of the survey, appropriate environmental risk assessments are carried that consider the vulnerabilities of children with the aim to create an environment that allows the next generation of children to grow up in good health. JECS examines the central hypothesis that "environmental factors, including exposure to chemicals during fetal development and childhood, have an impact in several domains: reproductive or pregnancy complications, congenital anomalies, neuropsychiatric disorders, immune system deficits or allergic responses, and metabolic or endocrine system dysfunctions".

3. What We Know

Fifty-four academic papers have been written as of January 2020. The main findings from those investigations are summarised below.

- Metal concentrations in maternal blood (during pregnancy)

Data can be found in the table below. Lead levels have decreased between 1/5 to 1/10 and cadmium to about 1/10 compared to a survey carried out in the 1980's.

Table 1: Metal concentrations in maternal blood (during pregnancy) (17,997 women) (Unit: µg/L)

	Mercury	Lead	Cadmium	Manganese	Selenium
Min. value	0.35	0.16	0.10	4.35	105
Median	3.83	0.63	0.70	16.1	178
Max. value	30.6	7.45	4.97	44.5	390

2. Progress of the JECS

During the recruiting period between fiscal 2010 and 2013, the study got off to a promising start with 100,323 pregnant women registering to take part, which exceeded the target number. As of August 2019, this figure stands at 95,557, slightly lower than that at the time these children were born; however, the participation rate has remained high at 95% and the study is attracting attention from around the world.

Analyses on metals in maternal blood (lead, cadmium, mercury, manganese and selenium) have been completed, as well as the effects of cigarette smoke in maternal urine. However, no data has been published on pesticides and phthalates. The publication of this data must be expedited.

- When 14,847 pregnant women were divided into four groups ranging from low to high cadmium levels in blood, the frequency of pre-term births was 1.9 times higher in the highest group compared to the group with the lowest concentrations.
- Males born to mothers who redesigned the interior of their homes while pregnant were 1.81 times more likely to have external genital abnormalities (undescended testes, hypospadias) than children born to mothers who did not.
- There was a lower percentage of boys born to fathers who worked in professions using pesticides more than once a week for a period of three months before their partner became pregnant.



Chapter 4

The Ongoing Disaster in Fukushima

Section 1. How to Confront the Accumulating Problems of Decommissioning, and the Amount and Outcome of Radioactive Waste

1. Current Status and Challenges in Decommissioning the Fukushima Daiichi Nuclear Power Plant (Including the Problem of Releasing Tritium-contaminated Water into the Ocean)

On 27 December 2019, Tokyo Electric Power Company Holdings (hereinafter referred to as “TEPCO”) revised its “Mid- to Long-term Roadmap towards the Decommissioning of TEPCO’s Fukushima Daiichi Nuclear Power Station Units 1-4”.¹ In this revision, the timeline for removing spent fuel stored in the fuel pool was pushed back. Fuel removal from Unit 1 is scheduled to start between fiscal 2027 and 2028, while the process for Unit 2 is scheduled to begin between fiscal 2024 and 2026. TEPCO reasoned that the pushing back the timeline for removal is due to a change in the removal method. However, if we consider the fact that preparatory work has already started, perhaps the change resulted from unexpected difficulties that became apparent during the process. The revised roadmap also sets fiscal 2031 as the completion of fuel removal from all Units, including Units 5 and 6. This is about 10 years behind schedule.

In February 2019, TEPCO conducted a contact investigation of Unit 2, and they were able to grip and move a deposit believed to be fuel debris (a 30-cm² range). Currently, work has started on the design and manufacturing of retrieval equipment and containers for storing fuel debris. Retrieval will start from 2021 as scheduled.

However, the completion date for decommissioning measures, which is between 2041 and 2051, remains unchanged in the revised roadmap. Under the basic principle of “coexistence of reconstruction and decommissioning” in Fukushima Prefecture, there seems to be opposition to delays in the plan; therefore, the total decommissioning period remains unchanged at “within 40 years”. However, this is evoking a contradiction on the issue of contaminated water in particular.

Contaminated water is generated because molten fuel continues to cool and remains behind after passing through an Advanced Liquid Processing System (ALPS). Currently, about 1.2 million tonnes of contaminated water is being stored in tanks, increasing by 170 tonnes daily. The large volume of water generated is an indication that the installed frozen soil wall is not functioning properly, and the application of this technology, which had not been put to practical use, is causing the situation we see today.

According to documents released by TEPCO, the content of radionuclides other than tritium exceeds standards in more than 70% of the tanks storing contaminated water. This is because there was a period in which the filters of the removal processing equipment were not changed as frequently in order to speed up the treatment of contaminated water. TEPCO has indicated that it will re-purify ALPS-treated water to reduce strontium, cesium and other radionuclides so that they fall below standard values when releasing the water into the ocean. At this time, the total amount of tritium in the tanks is estimated at 860 trillion becquerels.

1: TEPCO. “Mid- to Long-term Roadmap towards the Decommissioning of TEPCO’s Fukushima Daiichi Nuclear Power Station Units.” 27 December 2019.
https://www.tepco.co.jp/decommission/information/committee/roadmap/pdf/2019/t191227_04-j.pdf

2. Start of Operations of Interim Storage Facilities for Contaminated Waste and Associated Challenges

The Ministry of the Environment plans to build an 11-km² interim storage facility near the Fukushima Daiichi Nuclear Power Plant to store 22 million m³ of contaminated waste generated from decontamination works for 30 years after which it will be transported outside the prefecture. More than 70% of the site has been secured, and waste is starting to be shipped in from various areas. The Japan Environmental Storage & Safety Corporation (JESCO), which will operate this facility, has been established with 100% financial investment by the government. According to the company, a site has been secured for an interim storage facility with a capacity of 14 million m³. However, this volume was calculated as of October 2018 and does not include contaminated waste exceeding 100,000 Bq/kg or waste generated (or expected to be generated) in areas within the difficult-to-return zone. For this reason, the volume of waste is expected to increase in the future.

Since contaminated soil started to be transported in 2015, 5.798 million m³ has been shipped (as of 30 January 2020). After arrival, the source area is registered according to the tags attached to all flexible containers, which are sorted and classified according to the degree of contamination, and then transported to different storage locations by a belt conveyor system. Long conveyors are over 1 km. Contaminated soil is placed directly on a water permeable sheet at the site to where it has been transported and is buried up to a height of 5 m. Next, bentonite is laid on

top and the soil is further buried up to a height of 15 m in three 5-m layers. Waste that exceeds 100,000 Bq/kg, currently excluded from the above process, will be handled in the future.

Although it is difficult to secure land, the possibility of transporting contaminated soil outside the prefecture after 30 years will prove to be even more challenging. Perhaps in anticipation of this, the Ministry of the Environment is aiming to use contaminated soil with a radioactive level of 8,000 Bq/kg or lower in public projects around the country in order to reduce the volume of soil to be stored. However, no progress has been seen. This is because plans to use contaminated soil as roadbed materials in Nihonmatsu City and Odaka Junction on the Joban Expressway have faltered in the face of strong opposition from local residents. In the meantime, only a farmland reclamation demonstration project in the Nagadoro area of Iitate Village is moving forward at the expense of decontamination efforts in the difficult-to-return zone.

There are two reasons for opposing the use of contaminated soil in public projects. Firstly, as a general rule, radioactive substances should be centrally managed to avoid spreading them around the country from the perspective of environmental protection. Secondly there is concern that the use of contaminated soil as roadbed materials may result in exposure in the event of a disaster.

3. Effects of Typhoons and Heavy Rains (Daiichi Nuclear Power Plant and Wide-area Environment)

Typhoon Hagibis and the heavy rains that followed caused many riverbanks to overflow, wreaking serious damage in various areas in Japan. In Fukushima, which had experienced extensive radioactive contamination, cesium was released from forests that had not been decontaminated, causing contamination to spread again. According to news reports², cesium with a radioactive level of 3,000 to 5,000 Bq/kg was detected in sediment that flowed down to the road from the mountains in Odaka Ward in Minamisoma City, and readings of 11,000 Bq/kg were detected in the soil sampled immediately after the typhoon in the same area. Since decontamination work had only been carried out in areas 20 meters from the road, researchers observed that the highly contaminated soil flowed out from areas further back and the decontaminated area had become re-contaminated. This is simply one example, but it is likely that similar phenomena are happening in other locations as well.

In the meantime, typhoons also affected the inside of the Fukushima Daiichi Nuclear Power Plant, which is facing a desperate struggle with decommissioning. It is possible that contaminated water from the reactor buildings may have flowed directly to the sea because of the heavy rains. Moreover, the incursion of groundwater into the reactor buildings increased significantly in October, peaking twice. According to TEPCO, the amount of contaminated water generated (inflow into the reactor) was controlled below 440 m³/day.³ This suggests that part of the frozen soil wall may have collapsed from the heavy rains.

2: Tokyo Shimbun, 18 November 2019 issue.

3: TEPCO. "Regarding Contaminated Water Generated (Amount Flowing into the Building) During the 2019 Heavy Rains." 19 December 2019. http://www.tepco.co.jp/decommission/information/committee/roadmap_prog/ress/pdf/2019/d191219_06-j.pdf

4. How Can We Confront the Challenges Involved with Decommissioning the Fukushima Daiichi Nuclear Power Plant?

Decommissioning work at the Fukushima Daiichi Nuclear Power Plant is uncharted territory. Revisions must be made to the current unsubstantial roadmap so that it is safer and more reliable. The Roadmap should be such that it minimises the exposure of TEPCO employees and subcontractors, while also simultaneously limiting environmental impacts, discontinuing the practice of dumping contaminated water into the ocean, and shifting the milestones to storage and solidification.

The same applies to the treatment and disposal of radioactive waste outside the storage facility. The deployment of radioactive waste nationwide runs counter to the idea of minimising environmental impacts and should be avoided. Although there is tacit agreement that contaminated soil will be shipped outside the prefecture, this is hardly feasible. It is necessary to arrive at a social consensus after deliberations on what measures can be taken to convince more people, including those in Fukushima, to minimise impacts on the environment, leaving no debts for the next generation to pay.

Section 2. The Aftermath for the People of Fukushima

1. Thyroid Cancer: “Several Tens of Times More Prevalent”

Children in Fukushima Prefecture who were 18 or below at the time of the accident have been tested regularly for thyroid cancer. There were 237 children diagnosed with malignant or suspected cases of thyroid cancer, of which 186 were confirmed to have cancer after surgery (See Table 4-2-1; based on materials released by the Prefectural Oversight Committee for the Fukushima Health Management Survey up to 13 February 2020). In addition to this, at least 11 children with thyroid cancer are known to be undergoing surgery and treatment at Fukushima Medical University.

Patients who were not diagnosed with “cancer or suspected cancer” at the secondary screening but were diagnosed with thyroid cancer in subsequent follow-up examinations have not been included in the overall number in the prefecture’s health management survey.

In addition, as of December 2018, it has been announced that 257 patients, those who have been found to have thyroid nodules (nodular lesions), are eligible for support programmes and receive some form of medical treatment,

but details are not known. In any case, it is difficult to gain a clear picture of the actual number; however, based on the number announced by the Prefectural Oversight Committee for the Fukushima Health Management Survey, it may be possible that a considerable number of patients have fallen through the cracks. In addition, although the surgical findings of patients have only been revealed in piecemeal fashion, a number of patients present with lymph node metastasis and thyroid extracapsular invasion, with some patients also showing distant metastasis.

On 8 July 2019, a summary by an expert panel on evaluating thyroid examinations (Chair: Dr. Gen Suzuki) reported that “no correlation with exposure had been observed”. The summary also indicated that the incidence of thyroid cancer was several tens of times higher than the morbidity of thyroid cancer ascertained from regional cancer registries.

The second round of prefecture-wide screening found that the 13 municipalities in evacuation areas had the highest incidence rate of thyroid cancer, followed by

Nakadori, Hamadori, and then Aizu region. The highest doses of residential exposure were also in those same 13 municipalities, followed by Nakadori, Hamadori, and then Aizu. Yet, the panel concluded that there was no correlation with radiation exposure.

Initially, the prevalence of thyroid cancer had been attributed to screening effects. However, this does not explain why as many as 71 people had or were suspected of having thyroid cancer in the second round of testing two years later.

Some experts cite “over-diagnosis” as the reason why so many thyroid cancer cases have been found. Fukushima Medical University keeps following up patients with microcarcinoma. In performing surgical procedures, Professor Shinichi Suzuki from Fukushima Medical University said that, in the 180 cases of thyroid cancer he has seen, 72% have presented with lymph node metastasis. In 47% of his observed cases had extrathyroidal extension (i.e. extension of the thyroid tumour and invasion into surrounding structures), and all such cases require surgery. According to Professor Suzuki, the cancer recurred in 6% of cases, requiring that surgery be performed again.

Table 4-2-1: Number of People with Thyroid Cancer (in Fukushima Prefecture, those who were 18 or younger at the time of the accident)

Number of People with Thyroid Cancer (in Fukushima Prefecture, those who were 18 or younger at the time of the accident)					
	Number of target and examinees	Diagnosed and suspected cases of thyroid cancer (A)	Confirmed by surgery (B)	Male : Female in (A) (Note 1)	Percentage of respondents to the survey in (A) with an external exposure of 1 mSv or greater (Note 2)
1st round of screening (2011-2013)	Target: 367,649 Actual Examinees: 300,473 Ratio: 81.7 %	116	101	1 : 2.0	29 % (19 out of 65 people)
2nd round (2014-2015)	Target: 381,256 Actual Examinees: 270,516 Ratio: 71.0 %	71	52	1 : 1.2	58 % (21 out of 36 people)
3rd round (2016-2017)	Target: 336,669 Actual Examinees: 217,904 Ratio: 64.7 %	30	24	1 : 1.5	36 % (4 out of 11 people)
4th round (2018-present)	Target: 294,183 Actual Examinees: 136,942 Ratio: 46.5 %	16	8	1 : 1.0	82 % (9 out of 11 people)
Medical checkup when turning 25 years old	Target: 44,542 Actual Examinees: 4,277 Ratio: 0.6 %	4	1	1 : 1.0	-
Total		237	186		

(Source) Created by the author based on reports by Fukushima Prefecture up to 13 February 2020
(Note 1) Ratio of males to females with juvenile thyroid cancer at Noguchi Thyroid Clinic and Hospital Foundation, Kuma Hospital, and Ito Hospital: 1:7.8
(Note 2) Percentage of the targets with an exposure of 1 mSv or greater in the overall basic survey: 37.8% (n=465,999)

2. Hidden Initial Exposure

As mentioned above, one reason cited for why it is difficult to verify radiation exposure and health damage is that the thyroid exposure test was not offered at the very beginning of the nuclear accident. According to Fukushima Prefecture's emergency medical manual at the time, when body surface contamination was measured to be 13,000 cpm or higher during screenings (tests performed at the time of an evacuation on evacuees), they would undergo decontamination procedures (removal of radioactive substances on the surface of the body by cleaning and wiping), have their thyroids measured and take stable iodine, which would then be documented. However, in the confusion during the evacuation at that time of the accident, the baseline for undergoing decontamination after screening was raised to 100,000 cpm, and there were no measurements and few records kept on thyroid exposure. Fukushima Prefecture has admitted that this was contrary to the prefecture's emergency medical manual on radiation exposure.

On 15 March 2011, Ms. K, who evacuated from Tsushima in Namie Town, was screened at the Koriyama Sogo Gymnasium during the evacuation. At that time, the needle of the measuring device was off the scale, and generated a reading of over 100,000 cpm; however, the inspectors did not take her name and no record was created.

When questioned about why measurements for thyroid exposure were not taken, the national government has only stated that there are no records, and that it does not

know the reason. The original purpose of the screening was twofold: (1) to protect residents (quickly detect internal exposure, take required medical measures and keep records to be used for compensation or medical treatment later) and (2) to prevent the spread of radioactive substances. However, after the Fukushima nuclear accident, the sole focus shifted to (2), leaving (1) to be all but ignored.

Today, local governments located within a 30-km radius from a nuclear power plant are required to formulate evacuation plans in the event of a nuclear power plant accident, based on the Nuclear Emergency Preparedness and Response Guidelines established by the Nuclear Regulation Authority. The current guidelines raised screening criteria from 13,000 cpm to 40,000 cpm. Moreover, the procedure is to first measure the radioactivity of the vehicle, and if measurements for that vehicle exceed 40,000 cpm, then the radioactivity of a representative of the group in the vehicle is measured. If measurements for the representative are over 40,000 cpm, the radioactivity of all passengers is measured. Simple decontamination measures are taken if these measurements exceed 40,000 cpm, but measures have not considered internal exposure, such as re-examination after decontamination, thyroid measurements, and nasal smears. There are also no rules or regulations on recording cases. The original purpose of "understanding the internal exposure of residents" has been completely lost.

3. Current Status of Fukushima's Policy on Returning Home

Since 2014, evacuation orders have continued to be lifted in areas. However, even in locations where evacuation orders have been lifted, the occupancy rate has remained at only a small proportion of the population, and many of those who have returned to these areas are elderly⁴.

Mr. I, who has returned to Tomioka Town, says that the "surrounding houses are being demolished one by one and disappearing, like teeth being pulled." He asks, "Is this what reconstruction is supposed to look like?"

The requirements for lifting evacuation orders are as follows: (1) radiation levels are certainly less than 20 mSv per year, (2) infrastructure for daily life has been restored, and (3) there has been a sufficient level of consultations between the prefectural and municipal governments and residents. However, criterion 1 has been strongly criticised because radiation levels far exceed public exposure limits and the values in radiation-controlled areas in the first place, and consultations with residents are far from adequate, resulting in unilateral decisions made to lift evacuation orders in some areas.

Currently, the towns of Futaba and Okuma, as well as some parts of the towns of Namie and Tomioka remain as difficult-to-return zones. However, in line with the reopening of the entire JR Joban Line, evacuation orders in some areas, such as around JR Ono Station in Okuma Town, were lifted on 5 March 2020.

In March 2017, the national government and Fukushima Prefecture discontinued the provision of housing for evacuees from areas outside those under evacuation orders. Eighty percent of people have chosen to continue to evacuate and some have fallen on hard times. In March 2019, rent support for low-income earners was discontinued, and evacuees were no longer permitted to reside in housing for national civil servants. Those residents who do not move out are being charged twice the normal rent. As of December 2019, 546 households or 24% have no housing prospects from April.

Governments that have promoted nuclear energy policies are responsible for establishing fundamental laws, institutions, and implementation systems to provide relief for evacuees. However, even though evacuees are facing extremely difficult conditions, the Japanese government's policies are not based on the actual situation and the voices of those affected are not being reflected.

4: Mainichi Japan, "49% of Fukushima nuke disaster evacuees returning home to live are elderly: survey," 9 September 2019. <https://mainichi.jp/english/articles/20170909/p2a/00m/0na/004000c>

Green Alliance Japan Members Involved in Authoring Green Watch 2020

Citizens' Nuclear Information Center

Website: <http://cnic.jp/english/> Email: cnic@nifty.com

Activity Description: Positioned independently from the government or industry, the Citizens' Nuclear Information Center (CNIC) works towards building a society that is not dependent on nuclear power. CNIC collects documents and other materials on a broad range of issues related to nuclear energy, especially the dangers and risks, as well as conducting investigative research, and providing the resulting data and insights for use in movements working on nuclear phase-out. CNIC also proactively disseminates comments on policy, and collaborates with groups within and outside of Japan to conduct research and organise international conferences.

Eco Future Fund (EFF)

Website: <http://www.eco-future.net/> Email: eff_info@eco-future.net

Activity Description: The Eco Future Fund (EFF)'s mission is to "create a sustainable society through conserving and protecting rich forests and surrounding ecosystems." To realise this mission, EFF's activities involve collaboration with businesses, government agencies, and citizens using three approaches. Firstly, EFF takes a direct approach to forestry and ecosystems through conservation activities for Japanese and international forests (tree planting and thinning, promotion of agroforestry, etc.). Secondly, taking a lifestyles-based approach, the organisation also promotes and suggests paper products that use bagasse (squeezed sugarcane residue). Lastly, EFF, through supporting environmental NPOs, supports the implementation of environmental subsidies and grants.

FoE Japan

Website: <https://www.foejapan.org/en/> Email: info@foejapan.org

Activity Description: FoE is an international environmental NGO focusing on environmental issues at the planetary scale. Pulling from the support of two million members across 75 countries, FoE Japan began its work in 1980. The organisation engages in a wide range of advocacy work in such fields as energy (energy transition and anti-nuclear movements), climate change and deforestation, and environmental and human rights issues arising from large-scale development. Working towards the creation of a peaceful, sustainable society, FoE Japan envisions a world where all life is respected, where humans and all other organisms can live in harmony.

Global Environmental Forum (GEF)

Website: <https://www.gef.or.jp/en/> Email: contact@gef.or.jp

Activity Description: GEF works on disseminating information and raising awareness about global environmental issues such as climate change, primarily through commissioned work from the Japanese Ministry of the Environment and the National Institute for Environmental Studies. GEF's own initiatives include issuing its magazine, launching campaigns to stop illegal logging, serving as the secretariat for the Reuse Food Containers Network, and serving as the secretariat for the MATAGI Project (a project that promotes the use of leather from wildlife). The organisation is also working towards liaising between NGOs/NPOs for the Tokyo Olympics and Paralympics.

Japan Association of Environment and Society for the 21st Century (JAES21)

Website: http://www.kanbun.org/katudo_n/about_us.html Email: info@kanbun.org

Activity Description: Acknowledging that ‘environmental problems are civilisation’s problems’, JAES21 was established in 1993. Through the mobilization of citizens’ power, JAES21 seeks to build a sustainable civilisation where the environment, economy, human lives, and society are well-balanced, ensuring the health and wealth of the next generation. With this mission in mind, JAES21 is exploring the vision of a new civilisation, and working toward the transformation of lifestyles, values, and social systems to realise the new civilization. The organisation engages in a wide range of activities, including: i) studies to develop a roadmap toward an environment-oriented society, identify a pathway toward a green economy, or investigate ways to utilise old Japanese wisdoms to build a sustainable society, ii) policy recommendations to advocate for the need to include an environmental clause in the Japanese Constitution or to enact legislation for environmental education, and iii) policy-making support for local communities.

Japan Endocrine-Disruptor Preventive Action (JEPA)

Website: http://kokumin-kaigi.org/?page_id=168 Email: kokumin-kaigi@syd.odn.ne.jp

Activity Description: Environmental pollution by hazardous chemicals such as dioxins and other endocrine disruptors has dire implications not only for humankind, but also for all living creatures on the planet. In addition to providing citizens with information related to chemical substances, JEPA communicates its stance on policies regarding chemical substances to the national government, local governments, and businesses. JEPA also creates pamphlets and reading materials to educate the public about various chemical substances and their adverse effects, while holding both domestic and international symposia. Since 2009, the organisation has also worked to tackle the problem of neonicotinoid pesticide use in agriculture. Other initiatives include providing information about the dangers of household chemicals. Ultimately, working to meet the WSSD 2020 Chemical Management target, JEPA engages in various activities to protect future generations through hazardous chemical reduction.

Kiko Network

Website: <https://www.kiconet.org/?cat=54> Email: kyoto@kiconet.org

Activity Description: Kiko Network is an NGO/NPO that proposes, comments, and acts on behalf of civil society to stop global warming. Rather than solely focusing on changing the behaviour of each individual, the organisation strives to make all aspects of society (industry and economy, energy, lifestyle, localities, etc.) more sustainable. Incorporating research on global warming mitigation, policy commentary, and information dissemination, Kiko Network creates campaigns, strengthens networks, creates local global warming mitigation models, and engages in human resources development and education. Envisioning a world where all can lead secure lives in a low-carbon and sustainable future, the organisation works to transform our current society and economy toward greater fairness, peace, and prosperity. Furthermore, as a national network of civil society and environmental NGO/NPOs in the global warming mitigation space, Kiko Network also engages and cooperates with a wide range of organisations and sectors.

Institute for Sustainable Energy Policies (ISEP)

Website: <https://www.isep.or.jp/en/> Email: <https://isep.or.jp/en/about/contact>

Activity Description: Working toward society powered by renewable energy, ISEP produces energy policy research and commentary, as well as the development of renewable energy. This includes commentary and activities regarding strategies for transformative energy policy as well as specific energy plans. ISEP’s four areas of utmost importance are Energy Policy, Energy Business, Financing, and Community. Furthermore, the organisation capitalises on its networks with affiliated groups in and outside of Japan to share information and knowledge. ISEP also uses its connections with prominent international renewable energy-related groups to engage in international conferences and research activities.

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Section Authors

Preface: Understand it as Our Own Problem and Act for Change!

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From “Climate Change” to “Climate Crisis”

Takako Momoi (Kiko Network)

Realising a Sustainable Society Based on 100% Renewable Energy

Hironao Matsubara (Institute for Sustainable Energy Policies; ISEP)

Special thanks: Sayoko Iinuma (GEF)

Crisis in the Forests and for Biodiversity

Aya Uraguchi (Conservation International Japan)

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Chemical Substances

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Special thanks: Takenori Ueda (JEPA)

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High Moon