

# THE BULLETIN OF JSA

## THE JAPAN SCIENTISTS' ASSOCIATION

Chasu Bldg. 9F, 1-9-15 Yushima, Bunkyo-ku, Tokyo 113-0034, JAPAN

Fax: +81-3-3813-2363 <http://www.jsa.gr.jp/>

---

No.142

October 25, 2015

---

### ***The Japan Scientists' Association urges immediate total abolishment of nuclear power and switching over towards sustainable energy.***

May 25th, 2014

The accident at the Fukushima Dai-ichi Nuclear Power Plant of Tokyo Electric Power Company (TEPCO) of March 11th, 2011, was not a mere natural disaster caused by the earthquake and tsunami.

It was a disaster resulting from the policies of the political power to promote nuclear power plants. These policies included the Nuclear Safety Regulatory Guides which considered numbers of failure "beyond expectations". Among other causes were insufficient plans for prevention and evacuation, failure to formulate relief system and exclusion of radiation matters from environment regulations and from environmental assessments.

Contrary to the announcement by the then government proclaiming the "resolution" of the accidents, the situation at the Fukushima Dai-ichi nuclear plant remains serious with contaminated water leaking, contaminated materials continuing to be released, and, needless to say, the nuclear fuels being still unrecoverable. Even today many residents are forced to live as evacuees and numerous residents and industries are still suffering from the accident.

Nevertheless, the government and TEPCO are bargaining over the damage compensation and, as is the case with a number of past pollution-related health damages, they are trying to postpone the resolution of the damages.

In April, 2014, the Japanese Government also decided by the Cabinet on the new "Strategic Energy Plan". Regarding atomic and coal-fired power generations as "base load power sources", they even are trying to promote exportation of nuclear power and thermal power plants and also to promote the nuclear fuel cycle program.

These facts imply that they do not reflect on the accidents, turning against the energy saving and the promotion of natural energy, the sense of which are building up among corporations and citizens. They instead plan to maintain the society of massive energy consumption.

In addition, the government revised its climate control policy changing the reduction target for greenhouse gas emissions up 3% over 1990.

These actions lead to abandonment of government's responsibilities for environment, energy and safety for the future generations.

There are no visions for the industry, job creation and community development.

Their entire "Strategic Energy Plan" needs to be dropped and thoroughly reviewed.

Once an accident occurs, the nuclear power plant inflicts long-term and widespread damages as in the case of the present accident at Fukushima Dai-ichi plant.

Even in the absence of accident the radioactive wastes from the power plant must be kept safe for over a hundred thousand years. The danger posed by "pluthermal" operation and nuclear fuel cycle goes without saying.

Moreover, nuclear power generation and nuclear weapons are closely related both technically and politically. There is no safe development of nuclear power plant. Such problematic nuclear plants must be decommissioned immediately without resuming operation.

Fossil fuels, among energy sources, are exhaustible resources. Climate change and air pollution are environmental burdens they pose. A significant reduction in these burdens is a world-historical task.

In order to realize the agreement reached at the Conference of the Parties to the United Nations Framework Convention on Climate Change that has set the target for minimizing adverse effects of the climate change "to limit global average temperature increase to 2 C above pre-industrial level", it is necessary to reduce greenhouse gas globally by 60-70% by 2050 and, by the end of this century, to reduce emission of CO<sub>2</sub> of energetic origin of the world to nearly zero as stated in the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

Japan as a member of developed countries is obliged to take the lead to work on this.

Immediate abolishment of nuclear power plants and breaking with fossil fuels worldwide by the end of this century is technically feasible if, following promotion of energy saving and improvement of energy efficiency, we promote familiarization of renewable energy and plan to escape the society of mass production-and-consumption.

These countermeasures would serve to reduce the cost of fossil fuels and to create new industries and employments for these purposes. They also help us to look toward the future of an affluent regional society. Introduction of government's will and policy to realize them is required both globally and domestically.

The natural scientists and engineers are not the sole designers of a way to a society of no-nuclear plant and of sustainably low carbon.

The Japan Scientists' Association, along with every other scientists, natural or social, or humanities, strongly proposes our policies and measures toward a zero-nuclear plant and sustainable low-carbon, and even a no-fossil fuel society.

The 45th General Assembly of Japan Scientists' Association

***Memorial lecture for the 10<sup>th</sup> anniversary of the foundation of Article 9 Scientists' Association***  
***Scientists' role against Abe's beginning in earnest with amending the Constitution***

On March 21, 2015 Article 9 Scientists' Association held an event, where Profs. Komori (Univ. Tokyo) and Hirose (Senshu Univ.) delivered anniversary lectures.

In his lecture "Abe's rush to amend the Constitution and Article 9 movement's subjects and prospects", Prof. Komori mentions in detail movement to revise the Constitution from 1990s, and that Article 9 Scientists' Association has played a role to stand against that movement, pointing out that the force of public opinion the association and other organizations created moved politicians like Ozawa Ichiro, which brought about a change in the Democratic Party of Japan. Present right of collective self-defense is about to be exercised through not amending PKO law but Self-Defense Forces Law and law to define nation's response to foreign military attack. This is the same logic that was used by USA and UK to wage the war against Iraq as right of collective self-defense. Recalling anew efforts at the time of inauguration of the association, he emphasized the significance of developing grass-root activities like as drafting a message to impact society.

Prof. Hirose broadly discussed the relevant aspect of constitutional problems focusing on comparative investigation on Japanese and Germany postwar societies. The concept of postwar society holds great significance for Japan and German. As seen in the chancellor Merkel's statement, attitude toward war responsibility and nuclear power plant is absolutely different between political leaders in both countries. He also explained counterargument due to Bernhard Schlink et al. that actual achievement of postwar Germany demolished the argument that Nuremberg Military Tribunals violates the legality principle. As to war responsibility, the professor finally claims that distinguishing criminal responsibility – responsibility for the warfare, or the postwar generation's responsibility not to pursue that, and the ability to response – take action for the victims learning the past as Germany, postwar Japanese responsibility should be to establish postwar society totally different from the prewar one as a goal.

***50<sup>th</sup> Constitution gathering, 2015, Okinawa***

The gathering was held on May 3, at Naha City Hall with theme "Do not open hostilities – Let us know about Okinawa and establish a peace".

43 years passed since applications of the Constitution. On April 9, 1965 Legislative Branch of Ryukyu Government under occupation of US forces established May 3 as Constitution Memorial Day celebrating enforcement of the Constitution of Japan and its application to Okinawa. This year, in the context that Governor Onaga came into existence and runaway Abe Administration toward making Japan a war nation, 1300 people took part in the gathering to confirm their determination to obstruct war and maintain Article 9 for peace building.

First speaker, Ms. Hirara, survivor from the attacked and sunk ship that had been sending children in Okinawa to evacuation place in Kyushu, expressed her feeling of regret to her friends thrown out of the ship recalling their voices "Help, teacher! Help, mother!"

Mr. Nagamine talked about his experience. In 1989 US forces began to build a training institution for urban-type guerrilla in Onna Village. He organized movement against the construction, and US forces was obliged to demolish the 60% finished institution. The story was as follows. The whole villagers fought to protect their precious mountain from burn-off in military exercise. That aroused a nationwide sympathy, which arose the villagers' pride. They organized a rally, and after five months won the stop of construction and the removal of the institution. It must be remarked that mass-media in the prefecture helped standing by the residents. The speaker ended his words by saying that he will succeed Onna villagers' fight to the movement against a new base construction in Henoko and take over the spirit "we won't sell our heart".

Ms. Kitajima, born in Palau Islands, 1931, experienced war in jungle. She thought she could walk in the sunshine when she heard the end of war. She adopts as the constitution for life a moral *Yushi-gutu*, quote as a saying by ancient Okinawan, which means that sweet potatoes in the age salvaged by Maitreya is better than minced and steamed meats in wartime, because the moral tells us splendid things. She announced the preamble of the Constitution put into Okinawan by her.

Prior to the lectures, students of Ryukyu University put a recitation drama "Brown Morning" on the stage. Such a performance has gained public favor in recent years.

***Public Symposium Held: "How to Counter Rapidly Evolving Collaboration  
Between Academia and Military" (co-hosted)***

Fueled by a Cabinet decision made in December, 2013 that stated "proactive efforts are to be made to adopt civilian technologies which may be applied to the defense sector by strengthening the collaboration between universities and research institutions (dual-use technologies)," movement is accelerating toward a so-called "collaboration between academia and the military." For example, there are recent cases where universities or research institutions have become jointly engaged in research with the Ministry of Defense, while Japanese researchers are acquire research funding from US forces. Being contradictory to the fundamental philosophy of the Japanese Academia that has been in place since the end of World War II - specifically never to become involved in any military research, this trend is leading Japanese researchers to become once again engaged in war-related work. As researchers, we must not remain silent in the face of this issue, which should be taken seriously as an ethical issue.

With an aim to discuss how the collaboration between academia and the military is specifically evolving now and how we should counter this trend, 15 groups including the "Group of Signature-Collecting Campaign against Military Research in Academia" held a public symposium in Komaba Campus of the University of Tokyo on Saturday, June 13. It was attended by approximately 130 scientists and citizens who enthusiastically exchanged their views and opinions.

Professor Atsushi FUJIOKA (Economist at Ritsumeikan University) delivered the keynote address describing the dangers and weaknesses of a society dominated by a military-industrial-academic complex by offering the example of the pervasive collaboration between the military and academia in the US during the Cold War. He concluded that the international competitive power will be lost if we depend on demand from the military.

In the discussion, an attendee appealed that researchers are being led to get involved in military research while the research budgets continue to drop. At the same time, the attendees were inspired by the University of Tokyo's consistent stance to be opposed to such collaboration between the military and academia by coherently observing the principle of preventing military research. That movement was established on-campus after the end of World War II.

Using this symposium as a milestone, we are resolved to continue our efforts, and to expand our signature-collecting campaign against the collaboration between academia and the military ([www.no-military-research.a-la9.jp](http://www.no-military-research.a-la9.jp)) to obtain broader support and greater understanding from ordinary citizens.

(Morihsa HAMADA)

### ***ACTIVITIES OF RESEARCH COMMITTEES AND GROUPS***

***The JSA headquarters organizes a number of research committees and groups undertaken on a nationwide scale, which are encouraging the members across the country***

#### **1) ACTIVITIES OF THE COMMITTEE FOR SCIENCE AND TECHNOLOGICAL POLICY**

The greatest challenge the committee meets at present is to analyze the engagement including follow-up of Basic Program of Science and Technology (4) and to investigate what is desired as policy of science and technology. Due to the recent analysis of the committee, the Government irresponsibly summed up distortion caused by 20-year enforcement of basic program of science and technology resulted from new-born problems and insufficient restructuring. In the 4<sup>th</sup> program, it moreover placed the program as the one for promotion of industrial economy, in addition, having an intention to more apply science and technology to military usage. The recent analysis also tells the systemization of innovation is placed as the urgent subject, as to issue points of university's role, the role to span research-development corporations is stressed, which could lead to a device for industrial economic promotion. The committee is preparing to offer a public comment about the interim sum-up for the basic program.

#### **2) ACTIVITIES OF THE RESEARCH COMMITTEE OF FOODSTUFF PROBLEMS**

On June 6 at Bunkyo Civic Center, Tokyo, the committee held a regular meeting, where Prof. Hamada (Tokyo Univ. Marine Sci. Tech.) reported on the social hazard to fishery in Fukushima having been brought by the nuclear power plant accident. His report was as follows.

As to the question of the marine contamination in April immediate after the accident, although TOPCO (Tokyo Electric Power Co.) publicized 10,000 ton low-level radiation contaminated water, this radiation was 0.15 trillion BQ, while 520 ton high-level radiation contaminated water from Dai-ni at the plant got to radioactivity 4,600 trillion BQ, the latter is more critical but little informed. Present TEPCO and the Government has provided information so as to make people underestimate the damage.

In June 2013, Nuclear Regulatory Commission, as to contaminated water linkage, pointed out the possibility of outflow to the ocean. TEPCO did not accept that initially, but at last did at the next day of The House of Councilors election in July. TEPCO explained that despite usage of radiation removal apparatus and the built impermeable wall, ground water flows in on and on and contaminated water is

continuing to increase in the storage tanks. The premier Abe in August, 2013 declared to take measures to contaminated water as a nation without leaving TEPCO in complete charge to dispose. Nuclear Disaster Countermeasures office in September announced its policy: (a) Take away radiation contaminated water, (b) Keep away water from contaminated source, (c) Not leak contaminated water. Even so polluted water and storage tanks are increasing.

Even after the cleanup with removal apparatus, tritium remains yet, Nuclear Regulatory Commission declares to discharge contaminated water to marine at some stage. TEPCO thinks the discharge admissible if criteria are fulfilled, intending to eventually remit it to the judge of fishermen, namely, local people in a difficult position, which is the same way as in the problem of new base construction in Henoko, Okinawa.

### ***DISTRICTS' AND BRANCHES' ACTIVITIES***

***The JSA consists of 47 branches which are grouped into 9 districts, and they are independently and/or cooperatively carrying out their activities in addition to the headquarters' ones***

#### **1) HOKURIKU DISTRICT SYMPOSIUM -2015 FUKUI**

The 50<sup>th</sup> Symposium of Hokuriku district was held by three JSA branches of Fukui, Ishikawa and Toyama at Fukui University on April 11-12. Over 20 persons attended this symposium. The main theme was "Summary and prospects of democracy of Japan in the post-war 70 years- multi-faceted perspectives of Hokuriku district" and the sub-themes were 1 "Post-war process and the future prospects of Japan", 2 "Japan's energy policy" and 3 "University reform and education reform issues".

Mr. Yoshikawa (lawyer, Fukui branch) made a keynote speech entitled "History of Article 9 and the Japan-US Security Treaty" and he explained the history that US security has taken precedence over the Constitution in 70 years after the war. He pointed out that it is important not to allow exercise the right of collective self-defense and to make constant endeavor of the people for guarantee of the people's freedom and rights.

Reporters and the presentations on the second theme were as follows. Mr. Kiwata (Ishikawa branch),"Current status and future perspective of wind power generation and the energy policy": Mr. Kamisaka (Toyama University of international studies),"Regional development utilizing regional energy", Mr.Yuta (Fukui branch),"On wooden mounting of solar power panel". Mr. Naoe (Ishikawa branch) and Mr. Munekura (Fukui Univ.) reported "Super global university creation project in Kanazawa University and its problems" and "University governance and the University of Fukui efforts", respectively.

They pointed out that succumbing to Ministry of ECSST, if university strengthens the authority of the president and weakens the Faculty Council, freedom of education and research and autonomy of university will be deprived and a big root of evil will be left in the future of human resource development. In the afternoon of the second day, the tour of the solar power plant of a natural energy facility was held.

## 2) APRIL CONFERENCE OF ENGINEERS AND RESEARCHERS OF KANSAI – VOLCANOS AND NUCLEAR POWER PLANTS; CONSIDER ON THE WORST CASES

Kimio Furuyoshi, former teacher of geoscience of high school of Kyoto, has delivered speech on April 12<sup>th</sup> in the monthly conference.

According to Furuyoshi, there are 110 active volcanos (erupted in the past 10,000 years or currently exhausting fumes actively) in Japan. This accounts for concentration of 7% of volcanos in the 0.3% of lands of the globe. Among them are 10 caldera volcanos (discharge amounts 100 km<sup>3</sup> or above), and 6 are located in Kyushu island.

Different from earthquakes, caldera eruptions do not have periodicity. Mt. Aso erupted in as short interval as 10,000 years, while Kakuto-Kobayashi caldera has not erupted for more than 320,000 years, so far.

In the case of caldera eruption of Kikai (a submarine volcano, 50 km south of Satsuma peninsula) of 7,300 years ago, ash fall covered from Kyushu to Tohoku regions. Kyushu Island became inhabitable, and there was 20 cm thick of ash fall in the Kyoto basin. Afterwards, sun light was shuttered by fine-grained volcanic ash that reached stratosphere and mist of sulfuric acid (aero sol), and 'winter of volcano' commenced; it was an infertile period and forests did not revive for 900 years.

Mankind has managed to live in Japanese archipelago; fortunate that there was no nuclear power plant at that time. If Aira caldera erupts today, pyroclastic flow will reach Sendai nuclear power plant in 30 minutes; the plant would not be able to do any countermeasure. Caldera eruption cannot be predicted and no one knows when it happens; we cannot do any measure to that. Nuclear plants should be abolished.

Free discussion followed. Pointed out with sense of crisis were, there is no researcher of volcano in Japan Meteorological Agency, there are only 40 researchers who work on observation and research of volcanos throughout the nation, and distinct trend of decrease in the number of postgraduate students who are advancing to the second semester of doctoral program.

## 3) CONFLICT OVER THE UNIVERSITY- TOWARD THE RECONSTRUCTION OF THE COMMUNITY

A complex system workshop was held on May 9 in Osaka University. 17 students attended this workshop and 16 students of them were flesh-men. At first Mr. Nagano stated as follows. Nowadays is a special era in the history of the five million years of human beings. The time scale of changes in the natural and social is shortened to about the human life cycle. The survival is not guaranteed anymore relying only on experiences of previous generations. University is a place in which every one of the young people explores with teachers how should live by science as base. The students were divided into four groups and discussed on expectation in university. Then they evaluated the current learning environment such as general education program and discussed the resources which needs to achieve it and presented them each other.

The workshop provided an opportunity to think about that what is necessary to try to do for students who was one month after enrollment. Issues to rebuild university as a community of students and faculty were also cleared. Since students recognize university is a service organization that is

provided with tuition, they cannot get the idea that "higher education shall be free". More students have a tendency satisfying themselves with the conclusion that they cannot successfully access to them because they don't make enough efforts. In addition there is an illusion that university teachers are intellectuals and they have been complacent on this fiction.

The workshop, in which students were willing to participate, was a good attempt to be the first step to reconstruct university as a community.

#### 4) LECTURE MEETING OF IBARAKI BRANCH – 4 YEARS SINCE NUCLEAR ACCIDENTS; DISCUSSION FROM ACTIVITIES OF MEASURING RADIOACTIVITIES IN TSUCHIURA CITY

Ibaraki branch of JSA held a lecture meeting on 23<sup>rd</sup> May as well as annual assembly.

In the lecture meeting, our member, Shinichiro Nagasaka spoke with the title, "4 YEARS SINCE NUCLEAR ACCIDENTS; DISCUSSION FROM ACTIVITIES OF MEASURING RADIOACTIVITIES IN TSUCHIURA CITY."

After the nuclear accidents, citizens, who are concerned of radioactive contamination, have launched 'Citizens group of community development of Tsuchiura.' There were many inquiries from citizens to the group on safety against radioactivity. The group has decided to procure counter of radio activity. It was from judgment that "we cannot expect local government to do every necessary measure," and "we need to monitor the situation immediately."

The group has revealed that there are hot spots of radio activity such as under the downpipe of rain and big trees where rain water is concentrated. Also learned were lawns have higher radio activity than sand field, and most of the radio activity is within the depth of 5 cm from the field surface.

The group interprets the above results are explained that radio-active cesium is adsorbed to clay, and transported by water to lower places. Further, the group concluded that measurement of radio activity has to be done on the surface or 5cm height. These measurement results have been publicized as reports "Measurement of Radio Activity in Tsuchiura" No. 1 and No. 2.

Right after the accidents, radio-active iodine was detected from city water, but afterwards, there has no radio-active material been detected. Radio-active cesium is removed at filtration plants. However, in the Lake Kasumigaura and rivers flowing to the lake have precipitated depositions of radio-active cesium adsorbed to clay. Shipment of fishes, carps and eels, living in the bottom of lake, has been stopped because of that.

Discussion among participants followed the lecture with the title "What to do on the issues of nuclear power?" One of the impressive comments was "By reducing electricity consumption and utilization of natural powers, we could expect vitalizing domestic economy by investing money that is used for importing fuels."