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Citizens' Nuclear Information Center

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Fukushima Evacuees abandoned by the government

Lifting of evacuation orders means an end to compensation payments for evacuees

After the Fukushima nuclear accident, some 160,000 people were forced to leave their hometowns and evacuate the region. Even now, some 100,000 people are still forced to live as evacuees. (*Fukushima Prefecture, "2012 Immediate Report on the Circumstances of Damage from the Great East Japan Earthquake," December 28, 2015*). The numbers of voluntary evacuees, effectively those outside the mandatory evacuation districts who evacuated on their own, are believed to number approximately 36,000, according to media reports. (*Asahi Shimbun May 17, 2015, "Voluntary Evacuation, Toward an End to the Housing Provision Program."*)

On June 12, 2015, the Japanese government announced plans to lift evacuation orders for the restricted residence areas (23,000 persons) and the zone under preparation for lifting the evacuation order (31,800 persons), by March 2017 at the latest (see figure 1). Authorities also plan to uniformly terminate compensation for mental suffering to residents in these regions by March 2018.

However, these decisions have completely disregarded the will of evacuees. According to a survey on residents' return conducted by the Reconstruction Agency, most residents in the evacuated regions reported no intention to return, or that they had been unable to decide whether to return or not (See Fig. 2). Data for the youngest generation indicates they are the least likely to return. The main reasons residents cite for hesitation to return include concerns about the safety of Fukushima Daiichi Nuclear Power Station and anxiety about radiation, concerns about the provision of health care, the living environment, decaying of homes, and fears that the younger generation will not return, among others. (*March 10, 2015 Reconstruction Agency, "Four Years of Reconstruction, the Present Condition and Challenges"*)

Residents' needs ignored

The government has elected to lift evacuation orders based on the following conditions: 1) The

annual air dose rate of radiation has been confirmed as estimated to be under 20 mSv; 2) Primary living infrastructure has been sufficiently restored; and 3) The prefecture, municipality, and local residents have conducted adequate discussions.

Concerning the air dose rates, under the recommendations issued by the International Commission on Radiological Protection (ICRP), and also under the Japanese domestic law on public annual exposures to radiation and the Nuclear Reactor Regulation Law, exposures are set at 1 mSv/year. In radiation exposure regulated zones, limits are set at 5 mSv/year. Moreover, these limits disregard soil radiation doses. Many both inside and outside the affected regions have raised their voices in protest at the inadequacy of these standards for return and evacuation.

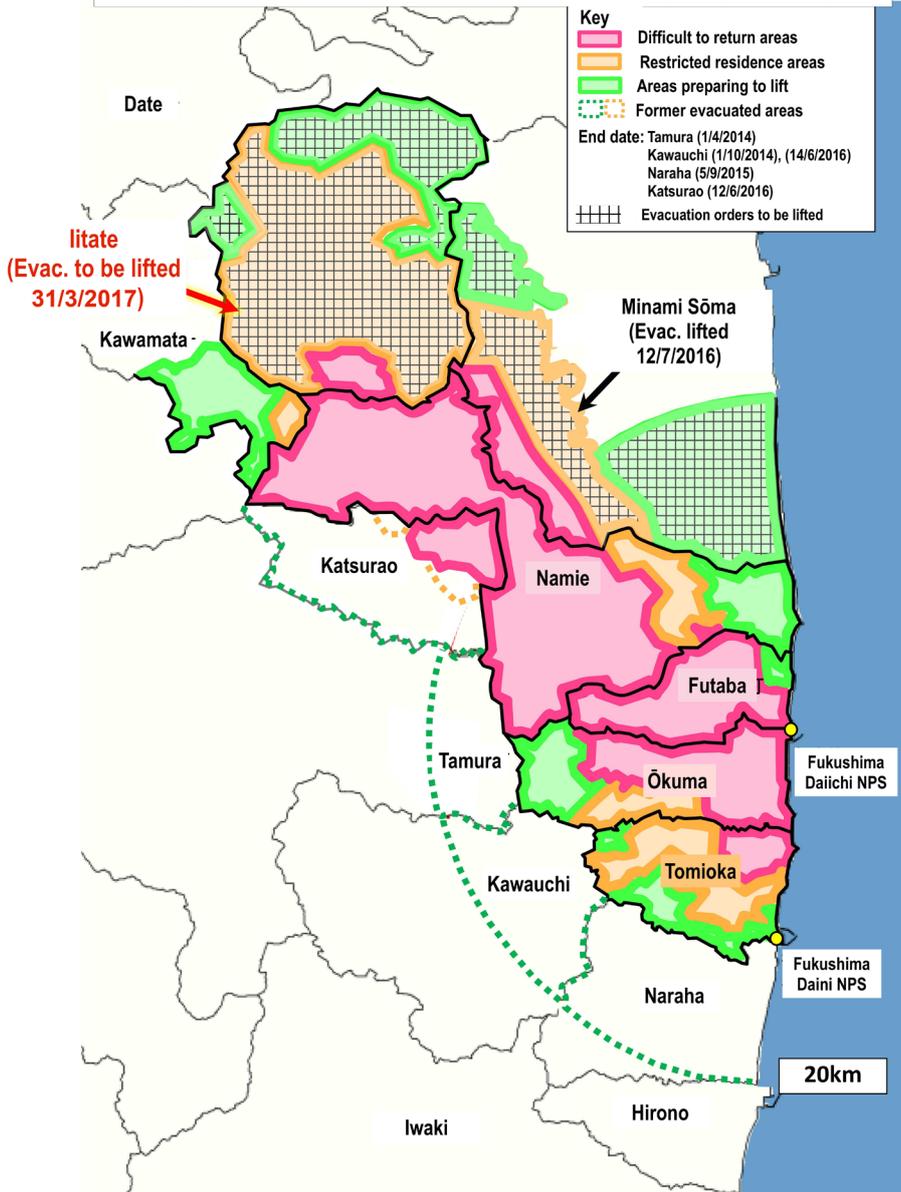
There is deep-seated criticism of the decision to mandate (and lift) evacuations based on measurements drawn from unreliable data, such as data taken from air dose rates which are unstable and have a tendency to fluctuate. For example, even though radiation levels in the air may have decreased, the concentration of radiation in the soil remains a serious concern.

For example, according to the Minami Soma Association for Recommended Evacuation Zones and Masuchika Kono, formerly of the Kyoto University Graduate School of Engineering, who collected samples of irradiated soil from the service areas and parking areas along the Ban'etsu Highway, a wide distribution of soil had levels greater than 40,000Bq/m², indicating levels

Contents

Fukushima Evacuees	1-3
Recycling radioactive waste	4-5
Nuclear Workers Update	6
Monju-Citizen recommendations	7
Nuclear safety evaluation	8
Who's Who -Ruiko Muto	9
News Watch	10-11
<i>Fukushima Radiation Book review</i>	12

Fig. 1: Map of Evacuated Areas (July 2016)



equivalent to radiation exposure regulated areas. (Figure courtesy of Minami Soma Association for Recommended Evacuation Zones, prepared by Yōichi Ozawa.) Further, depending on the amount of traffic and wind patterns, many have raised concerns about exposure to internal radiation through dust inhalation.

Concerning the lifting of evacuation orders based on 3), or the rationale that government officials have discussed all options with residents, in regions where evacuations have already been lifted, even though the majority of residents opposed ending the evacuations, the government has taken the position that “we will do our utmost to gain residents’ understanding” and “we will provide thorough explanations.” Even so, the government’s decision-making process has not reflected resident’s voices of opposition.

In December 2014, when the Minami Soma “Special Evacuation Encouragement Zone” was abolished, affected residents spoke out at a briefing

the evacuation encouragement zone would be abolished.

Residents of Minami Soma brought a court case against the government of Japan in the Tokyo District Court on April 17, 2015, demanding the (government-order] to revoke evacuation orders for regions with rates of 20mSv/year be cancelled.

The leader of the plaintiff group, Mr. Kanno Yūichi, lamented, “Even if evacuation orders are lifted, not even one person will return home. Only the elderly reside there now. Depopulation of this region has advanced all at once.”

Termination of Housing Subsidies

At present, many evacuees are renting accommodation provided under the Disaster Relief Act. Under this system, local municipalities hosting evacuees provide government-funded housing through leasing blocks of private apartments. Ultimately, the majority of these funds (90% in this case) are provided by the central government,

session, registering their opposition to the re-zoning. (This type of evacuation zone was set up in June 2011 to urge residents whose homes were estimated to be in the 20 mSv/year or higher range to evacuate. Homes are added to the zone on an individual basis.) Residents registered concerns such as, “Even after topsoil decontamination, our radiation rates are higher than the mandatory evacuated zones”; “Evacuation encouragement zoning should continue until decontamination is redone; and “We oppose re-zoning until radiation rates are below 1 mSv/year.” Local administrative leaders registered their concerns with the Ministry of Economy, Trade and Industry (METI), and other residents submitted petitions addressed to the head of the Nuclear Disaster Site Task Force Headquarters with some 1210 signatures opposing the re-zoning. However, the Vice Minister of METI, Mr. Takagi, reported that he wished “to maintain fairness between Kawauchi and Date,” and that “calculated annual rates [in these regions] are below the 20mSv/year rate, and health impacts are considered to be nonexistent.” On December 28, the government therefore issued the notification that

and the municipalities that the evacuee originally came from (in this case, Fukushima Prefecture) provide the remainder. Yet, Fukushima Prefecture announced plans to stop providing support for evacuees from outside the designated evacuation areas in March 2017.

According to a Fukushima Prefecture survey, more than 59.2% of all evacuees currently use this publicly leased housing. In relation to housing demands, many respondents requested extension of the residence periods for the emergency temporary housing. (*Fukushima Prefecture Evacuee Support Section "Fukushima Prefecture Evacuee Survey Results (Abstract)" (April 27, 2015)*)

Nevertheless, the attitude of prefectural authorities in terminating subsidies has been the focus of much criticism. For example, at a May 20, 2015 emergency gathering to demand an extension of housing subsidies, sponsored by FoE Japan, many evacuees spoke out as below.

"After having been driven out of our hometown by the nuclear accident, now they plan to cut our lifeline even as we struggle to regain our independence?" "The central government says 'self-reliance, self-reliance,' but knowing that we may lose our place to live, it's impossible for us to become 'self-reliant.' How can you say such things, after we've had our livelihood base snatched away?" "You [the government] are ignoring our will and trying to force us to return home." Many evacuees and citizen groups organized petitions and submitted these demands to Fukushima Prefecture and the Cabinet Office, which is responsible for the leased housing program. However, neither Fukushima Prefecture nor the central government reversed its decision to terminate support.

Afterwards, on August 26, Fukushima Prefecture announced "support measures" for the voluntary evacuees after the free housing program is terminated in March 2017. For low income households, the prefecture will rank financial need and reduce housing assistance gradually, eventually terminating aid in 2019. Moreover, for those who return to Fukushima Prefecture from outside, the prefecture will provide a maximum of 100,000 yen in moving assistance, support to be extended to the end of March 2017.

Clearly, these "support measures" are designed to promote evacuees' return to Fukushima communities. On the other hand, the "facilitating

of relocation to public housing" promoted under the central government's "new housing assistance" program, came to a halt after only 100 application documents were issued and appears to have ceased functioning. (*June 2016 Interview with Reconstruction Agency*).

In Conclusion

Now, persons affected by the nuclear accident are trapped in a situation of economic and psychological difficulty. Certainly, one source of the psychological anxiety is the health impacts of radiation exposure.

As of June 6 this year, the numbers of children diagnosed with thyroid cancer or with suspected thyroid abnormalities in the combined first and second cycles of screening stand at 172 persons. Within this figure, some 53 children were initially diagnosed as having no abnormality in their first screening. Nevertheless, the central government and the prefecture continue to repeat, "It is difficult to imagine [these cancers] as resulting from the nuclear accident."

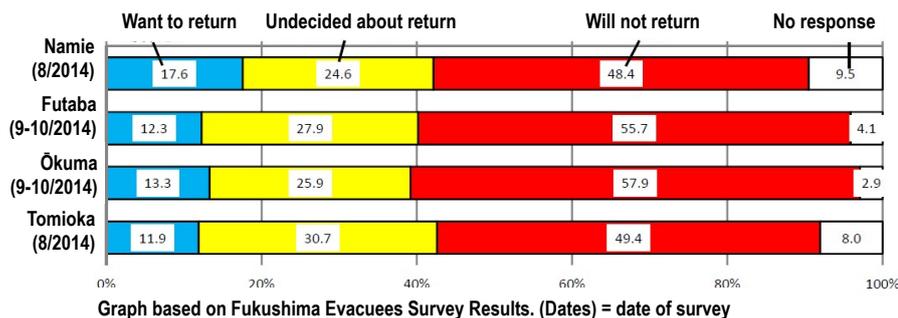
At present, Fukushima Prefecture's appeals to recovery, make mention of "radiation exposure effects" resulting from the Fukushima nuclear accident taboo, yielding an uncomfortable atmosphere and making it difficult to utter such claims. In this situation, even the media and journalists engage in self-censorship The government makes light of radiation exposure, and this has produced a situation where society follows suit.

First, we urge that the 20 mSv/year standard and the present policy of promoting return must be repealed.

It is critical that, with the participation of evacuees and the public, we engage in a cool-headed discussion from the perspective of the 1mSv/year radiation exposure standard. Further, decision-making about the evacuation and return policy must be carried out under the supervision of evacuees and bearing in mind the effects of radiation exposure. It is essential that, whether evacuees choose to extend evacuation or return to their home communities, economic and health-related assistance be provided.

(Kanna Mitsuta, FoE Japan)

Fig. 2: Fukushima Evacuees' opinions on returning to their homes



Recycling 8,000-Bq/kg decontamination-generated soil wastes should not be permitted

Soil and other wastes resulting from decontamination in Fukushima Prefecture are estimated to amount to a maximum of 22 million cubic meters (as of January 2015). The Japanese Ministry of the Environment (MOE) plans to store the soil wastes in one central interim facility, planned to be built to straddle the towns of Okuma and Futaba, Fukushima Prefecture. The soil wastes are scheduled to be relocated out of the prefecture to a final disposal site before May 2045, although the location of the final site is still undetermined. The land on which MOE plans to build the interim facility is owned, in individual parcels, by 2,365 persons, and as of the end of April 2016, only 113 owners had agreed that their land can be used for the interim disposal facility; that is, MOE has acquired only 2% (35 hectares) out of the entire construction area (1,600 hectares). In consideration of the area required outside the prefecture for the planned final disposal site, MOE aims to reduce the volume of the soil wastes by “recycling” them.

Projected recycling of soil wastes generated from decontamination

On June 7, 2016, MOE held the fourth meeting of the Strategic Study Group for Developing Technologies for Reducing the Volumes of and Recycling the Temporarily Stored Soil and Wastes Generated as a Result of Decontamination. The group agreed that, based on the relevant act concerning the handling of radioactive materials, the recycling of the soil whose total cesium-134 and cesium-137 concentration is 8,000 becquerels per kilogram (Bq/kg) or less should be permitted. (The cesium concentrations hereafter always refer to the total for the two nuclides.)

MOE explains that, while the soil wastes collected as a result of decontamination in Fukushima Prefecture alone would be recycled, they would be used in public construction projects throughout the nation: “The use of soil wastes is limited to public construction projects, and possible applications are ground elevation, coastal windbreak woods, seawalls, earth dikes, and land development” (Figure 1).

The MOE Study Group meeting also explained that the extra dose¹ to workers and residents would be 1 millisievert per year (mSv/year) during construction and the extra dose to residents after the completion of construction would be controlled to 0.01 mSv/year because of earth covering.

Probable spread of radioactive materials to the environment

According to the explanation by MOE, if the recycled soil is covered and shielded, radioactivity will be controlled and cause no harm. However, if a road constructed in this way subsides or is damaged, contaminated soil will be exposed,

and may spread in the area. The soil is likely to contaminate groundwater and may reach farmland and residential zones. After the recent serious earthquake in Kumamoto and Oita in southwest Japan, roads collapsed and cracked at many locations. Coastal windbreak woods and seawalls may be destroyed if a tsunami occurs, causing the soil to spread into inland areas and the sea.

If decontamination-generated soil wastes are recycled, not only will construction workers be exposed to radiation, but also children who use the area as a playground will be influenced. In case of an accident, MOE plans to raise the extra dose limit from the initially planned post-construction additional dose of 0.01 mSv/year, on condition that the extra dose should still be lower than 1 mSv/year.

Contradiction of double standards

Concerning the cesium concentrations in radioactive wastes, MOE used to explain that, based on the Nuclear Reactor Regulation Law, 100 Bq/kg was the clearance level for safe recycling of radioactive wastes, and that 8,000 Bq/kg was the limit of safe waste disposal, based on the act concerning the handling of radioactive materials.

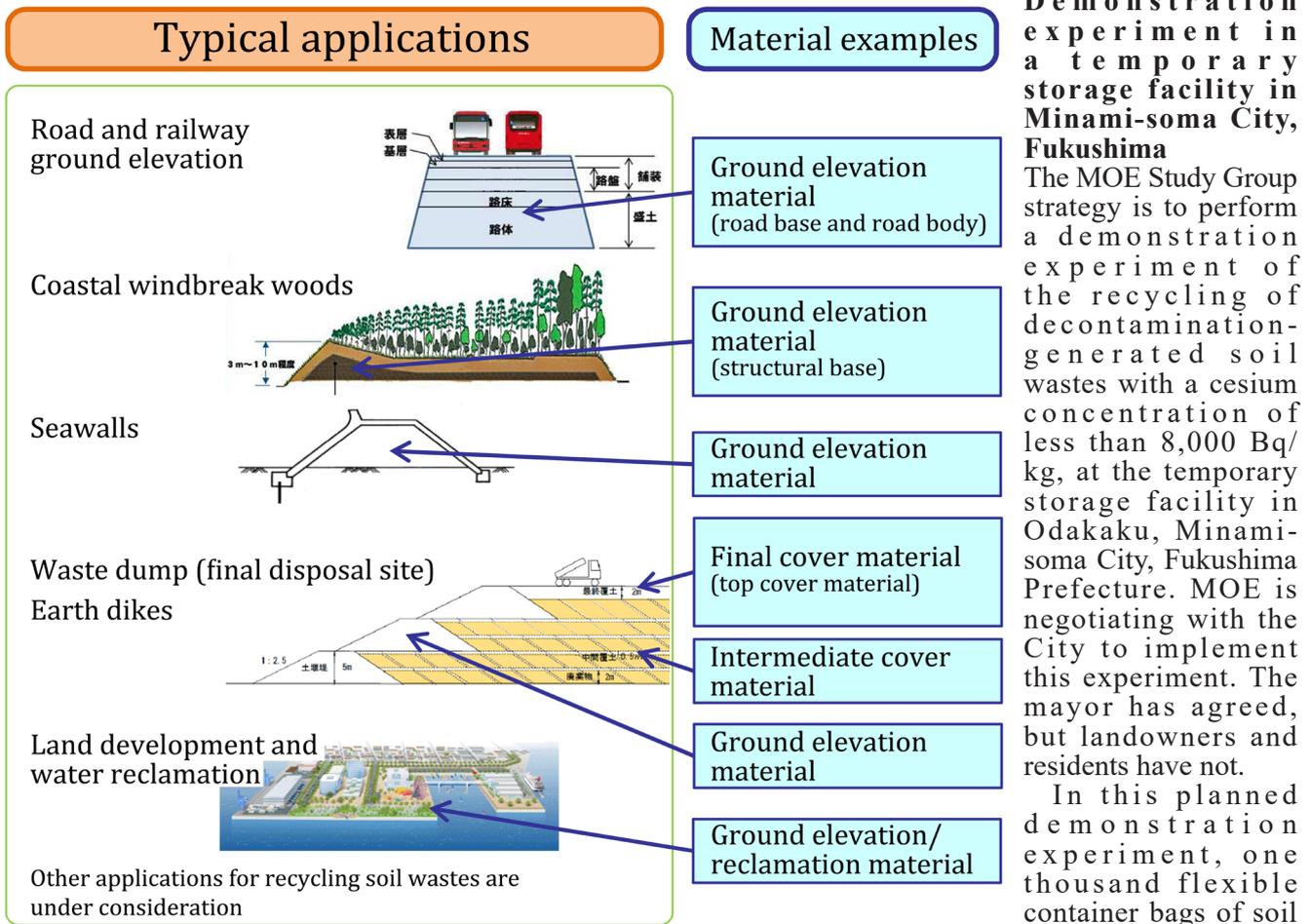
The Nuclear Reactor Regulation Law specifies that wastes exceeding 100 Bq/kg should be handled strictly as radioactive wastes, and that those at or below 100 Bq/kg, the clearance level, can be recycled for producing products used in society in general. However, because of criticism from citizens, such wastes have only been test-recycled in a limited variety of applications (concrete for construction and metal for benches).

The limit to the radioactive concentration of soil wastes specified in the Act on Special Measures to Handle Pollution caused by Radioactive Materials, which is 8,000 Bq/kg, is 80 times as highly contaminated as 100 Bq/kg, the clearance level specified in the Nuclear Reactor Regulation Law. Currently both the Nuclear Reactor Regulation Law and the Act on Special Measures to Handle Pollution caused by Radioactive Materials are valid, creating double standards.

Rubble generated as a result of the disaster of March 11, 2011 has already been recycled

On June 8, 2016, we held the second negotiation meeting with MOE on this issue (organized by FoE Japan). As an example of the recycling of rubble, MOE answered that 230,000 tons of rubble (concrete) of 3,000 Bq/kg or lower, having been gathered from the Fukushima Prefecture evacuation zones, has been used in a construction project along the seashores of the evacuation zone, to elevate the ground to create coastal windbreak woods². MOE explained that it measured the concentrations of radioactive substances, confirmed that the cesium

Fig. 1: Examples of projects and applications where soil wastes will be used
 (Source: Ministry of Environment)



Demonstration experiment in a temporary storage facility in Minami-soma City, Fukushima

The MOE Study Group strategy is to perform a demonstration experiment of the recycling of decontamination-generated soil wastes with a cesium concentration of less than 8,000 Bq/kg, at the temporary storage facility in Odakaku, Minami-soma City, Fukushima Prefecture. MOE is negotiating with the City to implement this experiment. The mayor has agreed, but landowners and residents have not.

In this planned demonstration experiment, one thousand flexible container bags of soil (1,000 cubic meters

concentration was 3,000 Bq/kg or less, and handed the rubble to the constructor. However, MOE answered that the constructor determined where and in what amount to use the rubble and the ministry was not informed of such information. MOE had instructed that the constructor should provide a shield of at least 30 cm in thickness, but the ministry was not informed of whether or not the constructor complied with the instruction. This indicates that MOE carries out extremely poor control of the recycling of rubble.

MOE allows the recycling of radioactive soil wastes, provided that it is controlled properly and used for specific applications. However, once the ministry entrusts the use of such wastes to a constructor, the constructor does not report to MOE thereafter, and the use of soil is left unchecked. The ministry does not consider the possibility of intentional substandard, shoddy construction. Irresponsible control of contaminated soil should be strictly prohibited to avoid the spread of radioactive substances in society.

or about 1,800 tons) will be processed to reduce the volume in temporary storage and used for ground elevation, in order to demonstrate a model for recycling of soil wastes. In the demonstration experiment, waterproof sheets will be used to prevent radioactive substances seeping into the ground, dispersing into the air, or leaking out, and proper shielding will be provided by means of clean soil, aiming to convince people of the safety of soil recycling. After the experiment, the trial construction will be removed, and the soil will be restored to the bags.

If the standard for soil recycling is changed to 8,000 Bq/kg based on the Act on Special Measures to Handle Pollution caused by Radioactive Materials, the soil will very likely be used throughout Japan, even though there are limited applications. It would be a terrible mistake to use radioactive wastes in residential areas. MOE should withdraw the policy of using radioactively contaminated soil wastes in public construction projects.

(Ryohei Kataoka, CNIC)

1 Exposure dose excluding natural exposure dose

2 “Basic policy for the interim handling procedures for reusing construction byproducts generated by public construction projects in Fukushima Prefecture” (Support Team for Residents Affected by Nuclear Incidents, Nuclear Emergency Response Headquarters, Cabinet Office, October 25, 2013)

Evaluating the Safety of Japan's Nuclear Power Plants

The 'Mokkai' Accident Investigation Committee and Nuclear Power Safety Evaluation Project

Worldwide there are currently 442 nuclear reactors operating in 30 countries. While other countries have no intention of competing with each other in this field, Japan's government stands apart by declaring its regulatory standards to be "the world's best." This arrogance is contrary to the attitudes of other countries around the world that have taken a firm stand since the Fukushima accident to "tackle safety issues with humility, knowing the dangers of pride and overconfidence." Meanwhile, there are concerns that this will once again encourage citizens to believe in the nuclear power safety myth, as in the past. Shouldn't Japan's current priority be first, a sincere effort to make its own realistic evaluation of its capabilities?

The Mokkai (familarly, "Once More") Accident Investigation Committee, is a group of former members of the Diet's accident investigation committee and other cooperating investigators entrusted with clarifying the causes of the accident, and is working autonomously to continue the investigation. In evaluating the safety of nuclear power in Japan, we are taking the U.S. Nuclear Regulatory Commission's (NRC) approach using Elicitation Panels and Phenomena Identification Ranking Tables. Through these, a number of experts working separately assign numerical scores, which undergo statistical processing to produce an evaluation. The NRC has been using these methods in various ways, including its deterioration evaluations of the internal structures of reactors based on

experimental data and cases of massive damage, as well as estimations of frequency of rupture of large diameter pipes and tendencies for electrical cable fires to result in malfunctions.

Our overall score of 1.7 (where a score of 5 is considered to be an adequate level) as the result of our first evaluation gives an impression quite far removed from what they are calling "the world's best." Of course, we do not consider our work to be of the same high standard as the NRC's. Nor do we consider ourselves the experts most qualified to undertake this project. It is just that we are concerned about the self-conceit of calling oneself "the world's best" with no basis whatsoever in reality, misleading Japan's citizens and possibly putting them at risk. We want to encourage relevant persons in Japan's nuclear power industry to undertake serious accident evaluations, making a humble assessment of nuclear power safety, and to have the courage to disclose the results.

We have disagreed among ourselves about this kind of evaluation because it would make sweeping generalizations about the safety of Japan's nuclear power, which should be assessed according to the original method of separately evaluating each nuclear reactor or each nuclear power plant. This will be an issue for our future consideration.

(Masako Sawai, CNIC)

Report card for nuclear safety in Japan

protection/ threat	siting	design	inspection/ testing	design accident	severe accident	disaster prevention
internal event	1.7	2.7	2.4	2.7	1.7	1.7
external event		2.3	2.7	2.4	1.4	1.2
sabotage		1.3				1.2
safety culture		1.5				

5	adequate level
4	almost adequate level
3	several vulnerabilities
2	several serious vulnerabilities
1	many serious vulnerabilities

Overall Score 1.7

Recommendation on "Fast Breeder Reactor MONJU" by Citizens' Study Committee

Background

In November 2015, the Nuclear Regulation Authority (NRA) submitted its recommendation concerning the Monju prototype fast-breeder reactor (FBR) to the Ministry of Education, Culture, Sports, Science and Technology (MEXT). In the recommendation, the nuclear watchdog maintained that the state-run Japan Atomic Energy Agency (JAEA) is "not fit to operate" Monju safely, and called on the ministry that oversees the Monju project to find another operator to replace JAEA, or, if a suitable party cannot be found, to carry out a fundamental review of Monju's future to reduce the risk of a severe nuclear accident. NRA then demanded that the ministry respond to this recommendation within six months.

In December 2015, MEXT set up a panel headed by former education minister Akito Arima to re-examine Monju's future (hereafter referred to as the "panel"). However, the panel's discussions were based on the assumption that the Monju project should be maintained. In reaction to this, a citizens' study committee on Monju, commissioned by the Japan Congress Against A- and H-Bombs and Fukui Prefecture Citizens Against Nuclear Power, was organized in January 2016. The chairman of this committee (hereafter referred to as the "committee.") is Hideyuki Ban, Co-Director of Citizens' Nuclear Information Center (CNIC). The committee held discussions in and after February 2016, and eventually announced on May 9, a recommendation that is comprised of two points and eight particulars that support the recommendation (the entire text is available at <http://www.cnic.jp/6982>).

Outline of the recommendation

There are two main points in this recommendation: (1) Because it is impossible to find a new operator for Monju, the attempt to search for such an organization is just a waste of time, so (2) Monju should be decommissioned.

With regard to (1), the recommendation said it is necessary to verify the current situation where JAEA has organizational problems that are diminishing its ability to ensure operational safety. It pointed out that the science ministry's panel discussed Monju's future on the assumption that the reactor would be maintained for good, and that there are many problems involved in the search for a new operator. The recommendation confirmed the Monju supporters' claim that JAEA is the only organization capable of operating the reactor, and referred to a plan to divide JAEA's Monju department into two, the operation department and the research and development department. It then noted that

the possible new operator of Monju would not pass the screening of the nuclear watchdog, NRA, and concluded that it is totally unlikely that a new operator could be found to replace JAEA.

Concerning (2), the recommendation said that Monju is a fundamentally dangerous nuclear reactor, and that the deterioration of the reactor equipment and materials resulting from the long-term suspension of its operation, and the retirement of many reactor designers and other related officials, would make it difficult for the reactor operator to take appropriate measures at the time of a nuclear accident.

The recommendation then pointed out that Monju was originally hailed as a "dream nuclear reactor" capable of producing nuclear fuel while generating power, but the dream did not come true, and instead, it will be given a seemingly unachievable role of reducing the amount and the toxic level of radioactive waste.

According to the recommendation, Japan has reprocessed spent nuclear fuel to separate plutonium with an aim to use it as the fast-breeder reactor fuel. Now the government insists that the reprocessing is necessary to reduce the amount and the toxic level of radioactive waste. Plutonium, however, can be used for the production of nuclear weapons, and Japan already has a stockpile of plutonium amounting to 47.8 tons. It is, therefore, highly unlikely that this reprocessing policy will win the understanding of the international community.

Taking all of these factors into consideration, the recommendation concluded that Japan has no choice but to decommission the Monju reactor.

After announcing this recommendation, the committee sent it to MEXT, NRA and other related ministries and agencies of the government. It called on them to send back their replies by the end of May but the panel has received no replies thus far. The panel plans to demand that the government create opportunities for an exchange of views with the committee.

(Hajime Matsukubo, CNIC)

Media disapproval of worker compensation certification Unforgivable!

Health Ministry must retract incorrect data used for media briefing!

In October 2015, the Ministry of Health, Labor and Welfare (MHLW) made public its standard for certifying a worker with leukemia as having suffered an industrial accident and being entitled to worker-compensation benefits. The Ministry released this basic rule when it certified the claim of a worker who was exposed to radiation in his thirties as a construction worker at the Fukushima Daiichi Nuclear Power Station (FDNPS) and later developed leukemia (see NIT No.169). The standard was contained in the document titled, "Results of discussions held in the review meeting on occupational and non-occupational ionizing radiation disease," prepared as reference material for the Ministry's media briefing on October 20, 2015.¹

The document says the certification rule for workers suffering from leukemia was set from the standpoint of the worker compensation by taking into account the objective of the compensation system. It also said if a worker with leukemia meets the standard and if it is clear that the worker's illness was not caused by other reasons than exposure to radiation on the work site, the ministry will certify the worker as having suffered an industrial accident and as being eligible for worker-compensation benefits, after its medical examination team approves his claim.

The Ministry maintained that, when it formulated the standard in 1976, it gave careful attention to the compensation payment in accordance with the spirit of the worker compensation system, so that workers with leukemia could receive a sufficient amount of compensation. It also said the rule was decided upon by taking into account the fact that the maximum permissible level of radiation exposure for ordinary public was 5mSv/year at that time.

The Ministry then stressed that the certification standard does not mean that a worker will develop leukemia if he is exposed to more than 5mSv of radiation annually, and that the certification of a worker's claim does not indicate that the causal link between the exposure and the damage to the worker's health was scientifically proved. This comment, however, was unnecessary.

Delayed radiation injuries caused by exposure to radiation are symptoms that emerge after a certain period of time and only a certain percentage of radiation-exposed sufferers develop them. Moreover, certification of the legal causal relationship does not require presentation of scientific evidence. The Supreme Court has previously handed down a ruling to the effect that a high degree of

probability is sufficient for certifying a legal causal relationship.

The Ministry's explanation contradicts the results of the above-mentioned discussions by scientific and medical experts that there is a high degree of probability in the causal relationship between leukemia and working in a nuclear power plant.

The November 23, 2015 issue of the *Nihon Keizai Shimbun* said that the MHLW had explained the certification standard as though it did not recognize the causal relationship between the worker's leukemia and the nuclear power plant job. According to the economic daily, the wide gap between the exposure limit stipulated in the Industrial Safety and Health Law and the level mentioned in the worker-compensation certification standard is causing apprehension among nuclear power plant workers.

Some other media also published misleading or incorrect headlines. The November 9, 2015 issue of the *Sankei Shimbun*, for example, ran the headline, "Leukemia caused by radiation exposure is a false claim," and the January 12, 2016 issue of the *Fukushima Minyu Shimbun* ran the headline, "The nuclear worker already had leukemia."

Taking into consideration the growing number of cases of radiation-related damage to nuclear workers, we, the members of the Radiation-exposed Workers' Solidarity Network, find it hard to overlook the ministry's blunder. We have repeatedly criticized the ministry in our negotiations with its officials and on other occasions, such as the May 21 rally during the 2016 spring labor offensive. In this rally, we stressed that, five years after the 2011 Fukushima nuclear disaster, a nuclear plant worker finally won worker compensation certification. We then demanded that the state, TEPCO and other nuclear plant operators take responsibility for the damage to his health.

Also participating in the rally was Mr. Ryusuke Umeda, a Fukuoka-based worker who used to work at the Shimane and the Tsuruga nuclear power plants before he suffered a myocardial infarction (heart attack) and is currently engaged in a court battle to seek worker's compensation (please see NIT No. 139, 168, 172). His lawyer also took part in the rally and reported on the problems involved in the first trial, which was dismissed by the court, and the challenges involving the battle in the appeal court. They called on the rally participants to support them in their legal battle.

(Mikiko Watanabe, Radiation-exposed Workers' Solidarity Network)

1+++ See <http://www.mhlw.go.jp/english/policy/employ-labour/labour-standards/dl/151111-01.pdf>

Who's Who

Ruiko Muto, The Tohoku Ogre**

by Miwa Chiwaki*

Hello, everyone. My name is Miwa Chiwaki. Today, I would like to introduce to you Ms. Ruiko Muto, the Chair of the Fukushima Nuclear Disaster Plaintiffs and one of the Joint Representatives of Hidanren (the Liaison Committee for Organizations of Victims of the Nuclear Disaster). Born in Fukushima Prefecture in 1953, she is currently living in Miharu Town in the same prefecture. After retiring from teaching at a school for disabled children, she opened a coffee shop called "Kirara" in a village forest in 2003. While managing this shop, she has proposed energy-saving and an environmentally-friendly lifestyle. In 1986, the nuclear accident occurred at the Chernobyl Nuclear Power Plant (NPP) in the Ukraine. She came to realize the danger of nuclear power plants, and launched an anti-NPP campaign. Ruiko repeatedly issued warnings against accidents at Tokyo Electric Power Co.'s Fukushima Daiichi Nuclear Power Station (FDNPS) from the viewpoint of local citizens, and continued her innovative and tenacious efforts to demand that the plant's operator take sufficient measures to ensure the safety of the plant.

On the day before the nuclear accident at FDNPS on March 11, 2011, she was preparing for a rally to demand the decommissioning of the plant's Unit 1, which would reach 40 years since the start of operations during that year. This means that she had planned to put this reactor off-line before the nuclear disaster occurred...

I came to know Ruiko soon after the nuclear accident. I was living in Fukushima at that time due to my husband being transferred to the Fukushima office of his company in 2007. At that time, I was totally ignorant about nuclear plants and the anti-nuclear movement. Immediately after the nuclear disaster, I fell into despair because Japanese society did not change at all even after this severe and irreversible accident, and because I had been forcibly exposed to radioactive substances from the nuclear plant during my daily life. I gathered related information from the internet, but did nothing other than release weary sighs and cry. But one day, I concluded that nothing would change if I continued to live like this and was determined to do something about it. I searched the internet for information about the anti-nuclear movement and learned about the activities of Ruiko's group. I then decided to join her group.

In the wake of the nuclear accident, everybody was struggling amid growing anxiety, fear and anger. Ruiko had a constant flow of visitors, telephone calls and e-mails from people wishing to talk with her in an attempt to find a ray of



light amid the despair. She met each one of them, listened to them and shared their agony, pains and difficulties. I was also one of the visitors. Members of many other anti-nuclear groups also came to seek her advice.

The plaintiffs' group has filed a lawsuit against those who are allegedly responsible for the nuclear accident, demanding that they face criminal charges. As the group leader, Ruiko is actively traveling around to talk with people all the time, despite the huge burden she has to shoulder. She has already given hundreds of lectures and speeches. The listeners say they are deeply impressed by her words, and have been encouraged to move forward to find rays of hope for the future.

At the same time, she is energetically engaged in activities to protect the human rights and health of Fukushima residents by serving as a joint representative of Hidanren.

* Miwa Chiwaki is the Secretary General of the Fukushima Nuclear Disaster Plaintiffs Group

**'Tohoku Ogre' is a reference to Ruiko's speech made at a huge rally in Tokyo in September 2011 where she claimed that the usually docile people of Tohoku were so angry about the nuclear accident that they had turned into the legendary ogres of that area.

NEWS WATCH

Operational Period Extension Approved for Takahama Units 1 and 2

On June 20, Japan's Nuclear Regulation Authority (NRA) approved extensions of the operational periods of Units 1 and 2 (both PWR, 826 MW) of Kansai Electric Power Company's (KEPCO) Takahama Nuclear Power Plant (NPP) to 60 years. Despite this being the first time for such extensions to be approved, the NRA made its decision without soliciting public comments. At the time of the approval, more than 41 years had passed since operation of the Unit 1 reactor had begun, and more than 40 in the case of Unit 2. They are slated for restart in the latter half of fiscal 2019, at which time 44 and 43 years will have passed, respectively.

Revisions to the Nuclear Reactor Regulation Law were approved in June 2012, but in introducing the 40-year limit on reactor operation, "rare exceptions" were recognized for extending operational periods. Even so, in recognizing "exceptions," this system is allowing the operators to apply for extensions of operational periods of nuclear reactors already exceeding 40 years from the start of their operation as special cases. Furthermore, these applications for exceptional cases are being approved from the start with no hitches. This clearly violates the spirit of the law.

Even worse, these cases were given priority so that the approvals could be handed down within the prescribed time limits, delaying other investigations. Also, handing out approvals based only on confirmation that "future maintenance management policies are appropriate" for numerous items does not deserve to be called an "investigation."

Confirming the earthquake resistance of the steam generators, a critically important component of any pressurized water reactor, is being delayed until after construction is completed. There is no guarantee that conformation to inspection standards can be ascertained at that time. In the case of fireproofing of electrical cables, covering them with a sheet is a recognized measure where replacement is not possible, but that leaves all sorts of questions remaining, such as whether the sheet actually covers all of the cables, how the effects of covering them with a sheet can be determined and how maintenance and inspections of sheet-covered cables can be performed.

Above all, embrittlement of the pressure vessel due to neutron bombardment, as has already been observed in Unit 1 through high null ductility transition temperature (NDTT), should be a red signal. It is said that this will be monitored through test specimen data, but the NRA itself expressed doubts that this data will provide an empirical basis for estimating NDT, although there seems to be no other way. (32nd meeting in fiscal 2015). In no way can this be considered fulfilling conditions for approval.

Ikata Unit 3 for Restart in August

Preparations have begun for the restart of Unit 3 of Shikoku Electric Power Company's Ikata NPP (PWR, 890 MW). From June 24 to 27, 157 nuclear fuel assemblies were loaded. Among them were 16 MOX fuel assemblies. Shikoku Electric Power Co. was aiming to restart the reactor in late July, restoring it to commercial operation in mid-August, however this schedule is expected to be majorly extended because on July 17 irregularities were discovered in one of the primary coolant pumps.

In response to this, ten citizens of Ehime Prefecture, where the reactor is located, petitioned the Ehime District Court on May 31 for a provisional injunction, and on June 27, one citizen of Oita Prefecture, across a sea channel from the reactor, petitioned the Oita District Court similarly. On July 4, three persons filed an additional petition.

Ikata Unit 1 Decommissioned

Unit 1 of Shikoku Electric Power Co.'s Ikata NPP (PWR 566MW)+ was decommissioned on May 10. This brings the total number of reactors decommissioned in Japan to 16 (including the prototype ATR "Fugen") with a combined capacity of 9189 MW.

Shikoku Electric Power Co. held its first meeting to consider research on measures for decommissioning on May 19, with representatives of each of its group companies, the Agency of Natural Resources and Energy, Ehime Prefecture, the Ehime Prefectural Industrial Technology Research Institute, and the Ehime University Social Cooperation Promotion Mechanism participating. The aim was to promote participation by local companies and the university in decommissioning measures as well as to gain PR.

Basic Earthquake Ground Motion to be Recalculated for Oi NPP

The NRA decided on June 20 to recalculate the basic earthquake ground motion for Units 3 and 4 of KEPCO's Oi NPP (both PWR, 1180 MW). The Fukui District Court handed down a decision to halt operation of these two reactors on May 21, 2014, and KEPCO is appealing the decision, disputing it through the Kanazawa Branch of the Nagoya District Court. In those hearings, seismologist and former NRA Deputy Chairman Kunihiko Shimazaki presented a written statement pointing out concerns that the computing methods used to assess basic earthquake ground motion may have given underestimations.

Later, on June 16, Shimazaki met with NRA Chairman Shun'ichi Tanaka and NRA member Akira Ishiwatari (who has taken over for Shimazaki in charge of earthquake evaluation), saying that the NRA must not overlook these indications. What Shimazaki is concerned about is that using different formulas in computing the scale of earthquakes based on factors such as surface areas of faults can give results greater by factors of 3.5 to 4. Based on data from the Kumamoto earthquakes, Shimazaki is certain that the figures have been underestimated. On July 13 the NRA declared there was 'no problem' after examining re-calculated figures, but Shimazaki is still not convinced.

Spent Nuclear Fuel Reprocessing Implementation Act Approved

The Diet approved the Spent Nuclear Fuel Reprocessing Act on May 11, and a meeting of promoters was held on July 1 for establishment of an implementing body for spent nuclear fuel reprocessing. The Spent Nuclear Fuel Reprocessing Act is a law addressing the inability of the reserve fund method presently used for covering reprocessing costs to ensure sufficient funding due to the increasing liberalization of the electric power industry. It mandates contributions from the electric power companies to the reprocessing fund. These contributions will provide funding not only for the Rokkasho reprocessing plant, but also for the next reprocessing plant after Rokkasho as well as MOX fuel processing facilities.

The authorized corporation "Spent Nuclear Fuel Reprocessing Organization," which will be the main implementing body for the project, is to be established this fall, but the project itself will be entrusted to Japan Nuclear Fuel, Limited (JNFL), who will implement it with no changes from current practices.

Use of Term "Core Meltdown" Suppressed

The Third-Party Verification Committee established by Tokyo Electric Power Company (TEPCO) to investigate the delay in notifying the public that a core meltdown had occurred

at the onset of the Fukushima nuclear accident announced the results of its investigation on June 16. Masataka Shimizu, then TEPCO president, instructed employees not to use the term "core meltdown," but that is said to be "presumably" due to requests from the prime minister's office. Shimizu's memory of this, however, is hazy, and the prime minister's office denies any consultation whatsoever. Both then Prime Minister Naoto Kan and then Chief Cabinet Secretary Yukio Edano denied making any such request. TEPCO says it will not order a new investigation.

The Fukushima Prefectural Assembly voted on June 29 to approve a position statement requesting a truth-finding investigation.

Spent Fuel to be Taxed in Fukui Prefecture

A bill to review nuclear fuel taxation was submitted to the Fukui Prefectural Assembly on June 3, calling for taxation of spent fuel accumulating at NPPs in Fukui Prefecture and encouraging its transfer out of the prefecture. It was adopted on June 24. Later it gained the approval of the Minister of Internal Affairs and Communication, and will be implemented from November 10.

The existing+ Fukui Prefectural nuclear fuel tax was levied at a rate of 8.5% of the value of nuclear fuel at the time of its reactor loading, but with nuclear generation halted, these taxes cannot be collected. For that reason, the law was amended to tax the thermal output capacity of nuclear reactors at a rate of 40,000 yen per 1000 kW.

The current review called for taxing used fuel stored for more than five years at NPPs at a rate of 1000 yen per kg. Meanwhile, taxation of thermal output capacity will continue, but be reduced to half the current rate during the course of decommissioning. This way, a total of 44 billion yen in tax revenues can be expected for the five years following the revision, even with the reactors halted.

JAPC Participating in New British NPP Construction

Japan Atomic Power Company (JAPC) concluded a cooperative agreement with Hitachi and Horizon Nuclear Power on July 7 to provide support in the permission and authorization stages for the construction of 2700 MW ABWR reactors by Horizon Nuclear Power, a Hitachi subsidiary in Britain, at the Wylfa Newydd site on the Isle of Anglesey.

Fukushima Radiation

Will you still say no crime was committed?

Statements by 50 Complainants for Criminal Prosecution of the Fukushima Nuclear Disaster

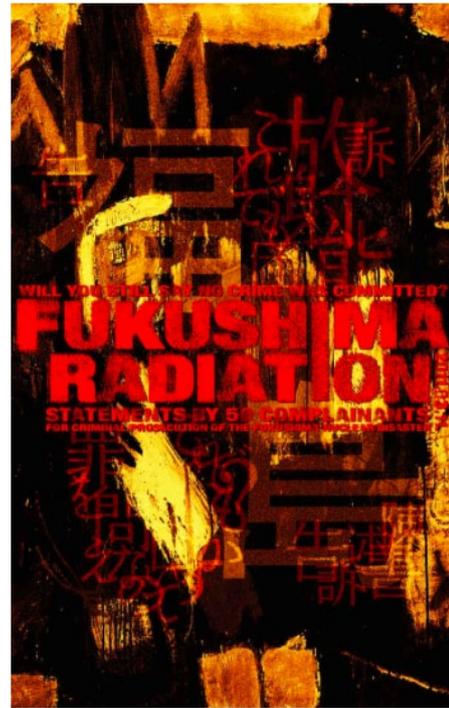
Translated by Norma Field and Matthew Mizenko
Available on Amazon as E-Book

This E-book was published in January 2015, but it began with the establishment of the Complainants for Criminal Prosecution of the Fukushima Nuclear Disaster, a group led by Ruiko Muto (see page 9) in March 2012. The goal, when this group was established, was to gather 1,000 complaints, and this was exceeded in May of that year. Starting in April *Shukan Kinyobi (Weekly Friday)* magazine began to publish these statements and they eventually accompanied the complaint filed at the Fukushima District Court on 11 June 2012.

As the translators mention in their Foreword, the Complainants do not stand to gain anything individually by filing this case, rather they are driven by 'grief, anger and incredulity.' These feelings are vividly conveyed to the reader. It is hard to imagine how the losses described by the Complainants can ever be compensated or even measured, for example, the seven year old boy who says that he wants to go back to the house where he was born where 'lots of animals and cats and goats all got along nicely.' Or the man, separated from his wife and new-born son who evacuated to a different prefecture, who has missed out on his son's 'first steps, his first words, his learning to stand, to crawl.' The mothers who are bringing up children all alone in distant places where they have evacuated, without the love and support of friends and families.

To answer the sub-title of the book, one is left in no doubt that serious crimes have been committed and that unless those responsible are identified and punished, Japan cannot be said to be a country where justice prevails. The implications are even more serious. If those responsible are not punished, surely the chance of another accident occurring increases. All these motivations are expressed movingly in the statements and one is left with a bitter taste of outrage as well as huge respect for the courage and actions of the Complainants.

The translators have included extensive footnotes explaining everything from the difference between micro-Sieverts per hour, milli-Sieverts per year



and Becquerels, to the different evacuation zones, Japanese festivals, and the seismic intensity scale used in Japan. These are extremely helpful for those not familiar with these details, which are often referred to in any conversation about Fukushima, but sometimes not fully understood by those outside.

There is also a comprehensive Chronology of the activities of the Complainants group from the inaugural rally in Iwaki on 16 March 2012 right through to April 2015, charting the court proceedings, the rallies and other actions.

As Ruiko Muto says in the 'Sequel to "Afterword"' this e-book was published 'so that people around the world may know that the Fukushima nuclear disaster has not been brought under control; that it continues to spread harm; and how the nation of Japan is choosing to abandon the victims.' One hopes that these powerful messages will indeed reach a global audience, and that these first hand descriptions of exactly how nuclear power destroys human communities and the devastation it continues to wreak on individual lives by perpetuation of a system that allows impunity for those responsible, will add to the growing global realization that the risks of nuclear power generation are unacceptable, especially when they are born entirely by ordinary innocent people.

(Reviewed by Caitlin Stronell, CNIC)

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