

Taiwan May Plunge Toward Annihilation If Faced With a Nuclear Disaster

| TBT Forum

The crisis of radiation leaks from the Fukushima nuclear power plant triggered by a massive earthquake taking place off Japan's northeast coast has caused a new wave of concern about nuclear security in the international community. In response to the Ma government's insistence on its nuclear power policy, Taiwan Brain Trust (TBT) had held a seminar entitled "Reviewing Taiwan's Energy Policy from the Perspective of Japan's Experience" on March 24 and invited a number of experts and academics to make a comprehensive examination of Taiwan's energy policy.

Professor Shih Shin-min from National Taiwan University's Department of Chemical Engineering pointed out that tsunami-resistance designs in Taiwan's nuclear power plants are apparently insufficient. Moreover, a water-leakage accident had once happened in one of those plants. At present, Taiwan's First Nuclear Power Plant operates with quake-resistance standards of only 0.3G (gravitational velocity), which are even lower than the standards required of new buildings by current regulations. As millions of people live in the significant political and economic zones located within a 30-kilometer radius of this nuclear plant in northern Taiwan, response to a nuclear crisis in this area will be far more difficult than the one that Japan has experienced. What's more, such a nuclear disaster will definitely pollute the Feitsui Reservoir, which supplies water for the greater Taipei area, and therefore plunge Taiwan toward annihilation.

Shih indicated that the consensus on a "nuclear-

free homeland" achieved by ruling and opposition parities in the past had been discarded after the Kuomintang (KMT) returned to power in 2008. The Ma government has planned not only to lengthen the operation periods of the existing nuclear reactors, but also to build new reactors. Its "Sustainable Energy Development Guidelines" has listed nuclear power as a "low-carbon" option. But the fact is, the high standards for the construction of a nuclear plant, the manufacturing process of nuclear material, and the decades-long nuclear waste processing will emit more carbon dioxide than that generated by renewable energy power stations.

Wang To-far, a former director of Taiwan Power Company and economics professor from National Taipei University, stated that after Japan's nuclear disaster, the United States ordered an overall examination of the safety of all its nuclear plants; the European Union began to review its policy of nuclear power applications as well as emphasizing to increase the proportion of wind power, solar energy, and renewable energy; Germany announced a three-month suspension of the operation of seven old nuclear reactors; and even China declared security checks would be carried out on its nuclear stations under construction and that it will suspend the approval of projects to build new nuclear plants. But Taiwan's government was not even willing to examine the safety of all its existing nuclear plants, though this is just a most basic measure it should have taken.

Wang further explained that the Ma government has first overestimated the energy demand in

the next ten years, maintained a reserve margin percentage that is too high, and then set the “minimum amount” of renewable energy and electricity from natural gas aimed to achieved by 2020 as the “upper ceiling,” so as to reach the conclusion that nuclear power has to be increased. But the reality is that assigning a reserve margin of more than 10 percent is nothing short of a waste of energy. In the late 1980s, Japan set its reserve margin at about 8 percent. Between 1990 and 1996, Taiwan maintained a reserve margin only from 4.2 percent to 7.4 percent, and its economic development still flourished. Taiwan’s electricity reserve margin has reached as high as 28.1 percent in 2009, but as nuclear power only made up 18.1 percent of total generation, this country would still secure a 10-percent reserve margin even if all its three nuclear stations were shut down.

Professor Chan Chang-chuan from National Taiwan University’s Institute of Occupational Medicine and Industrial Hygiene shared his personal experience of participating in meetings on nuclear power in the past. He said whenever he mentioned an alternative project that is not nuclear power or whenever he asked for an assessment of a possible level-9 nuclear emergency (nuclear fuel rod meltdown), his statement would be stopped and related government agencies, the media, and experts supportive of nuclear plans would join in concerted efforts to suppress and slander him. The belief that nuclear power generation is linked to economic development is a myth, he added. The Fukushima nuclear disaster has probably caused losses topping NT\$10 trillion. The government

here has always tied its backing for nuclear power with economic development, but it forgot that nuclear development may not only pollute the environment but also make this country uninhabitable for coming generations.

Chan also offered concrete advice for the Ma government called Nuclear Power Generation: Stop, Look, and Listen: Stop the plan to extend the operation of the First, the Second, and the Third Nuclear Power Plants and suspend the commercial operation of the Fourth Nuclear Power Plant immediately; look at how Japan has dealt with the safety, health, environmental, financial, and social problems caused by the Fukushima nuclear disaster, and see whether experts and the public in Taiwan can reach a consensus both on strengthening security standards for the operation of nuclear plants and on enhancing emergency response capacity to a nuclear accident; if such a consensus cannot be reached, then the government should listen to the people’s voice by letting the people decide on the nuclear issue through a referendum. **BT**