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The Fukushima Nuclear Accident: What has been learned from it?

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The ill-fated Fukushima nuclear reactors are still in a state in which Japanese are struggling to find the end of the tunnel. They are now facing with the highly contaminated radioactive water. It is polluting the world unless confined in a small space for an incredibly long time. There have been many cases such as the crude oil leak from a deep-sea oil well polluting ocean or many volcanic eruptions that had globally polluted air. Why the Fukushima nuclear accident should be treated in a different way when these radioactive materials were originally from ground and they will eventually find their way back into a soil? The reality is not as simple and a remarkable difference needs to be put into consideration: nuclear wastes are highly condensed because humans worked to make them that way so that they can be used as nuclear fuel or atomic bomb. Trouble is that one finds in nuclear waste many radioactive substances with very long half-life times that would stay hazardous for many future generations. Most ashes from big volcanic eruption find their way to the ground within several years or so. Once they landed the surface of the ground, they are no different from the soil and will become basically harmless dusts. On the contrary, for some part of nuclear waste it will take over 10,000 years to become almost harmless.

In general any human being does not feel a real threat on anything that would happen far beyond his/her life span. People usually are optimistic by saying that someone in a future would come up with a perfect solution to take care of the problems associated with nuclear waste. This argument reflects a very irresponsible attitude of people working on the project involving nuclear fuel. The problems in Fukushima nuclear accidents are mainly resulting from such an irresponsible attitude. Is it ever possible to see a happy end with any nuclear power station based on such a human mentality?