More than 30 months after an earthquake and a tsunami damaged Japan’s Fukushima nuclear plant a team of experts has reported that enormous resources and innovative technologies will have to be employed to overcome the complex issues still to be resolved in decommissioning the facility.

“The team also notes that the current situation is very complex, and that there are still some very challenging issues (e.g. contaminated water management, nuclear fuel removal and fuel debris removal) that must be resolved to ensure the long-term sustainability of the plant’s stable condition,” the International Atomic Energy Agency (IAEA) report said.

The report added that Japan “appears to have adopted a well-oriented set of countermeasures.”

Between November 25 and December 4 a 19-member team from the IAEA, led by Juan Carlos Lentijo of Spain, visited the Fukushima facility, following up on a previous visit in April. The purpose of the visit was to review in a holistic fashion the roadmap for decommissioning the facility, and in particular the mid-term challenges.

The experts said that among the mid-term challenges are the removal of spent fuel from storage pools, removal of fuel debris from the reactors, management of contaminated water, monitoring of marine water and management of radioactive wastes. They said Japan must also take steps to ensure the stability and reliability of structures, systems and components, as well as carrying out research and development related to the decommissioning of the plant.
“The team considers that Japan developed its efforts towards decommissioning the plant promptly after the accident, and since then, Japan has achieved good progress in improving its strategy and the associated plans, as well as in allocating the necessary resources towards the safe decommissioning of TEPCO’s Fukushima Daiichi NPS,” the report said.

“Since the IAEA mission in April 2013, the Government of Japan and TEPCO have increasingly adopted a more proactive attitude and approach towards addressing the many difficulties at the site,” it said.

In addition to the challenges posed by the decommissioning effort, public officials have been particularly concerned by the hundreds of gallons of radioactive water that leak into the ocean daily. While the leakages have caused major problems to the local fishing industry, some experts say that the levels of radiation that have leaked are low compared to naturally occurring radiation.