Post-disaster Questions

It has been approximately 20 months since the East Japan Great Earthquake and Tsunami occurred on 11 March 2011. The biggest challenges to face after the disaster were: the reconstruction plan, including relocation of villages and towns from low-lying land to higher areas; processing a huge amount of solid waste; and shutdown of the Fukushima Nuclear Power Station and the related decisions about Japanâ€™s future energy policy. The biggest issue is whether Japan should continue to generate nuclear power or not. Recent public comments show that 81% of nations are against the continuation, which implies that the majority of countries are not convinced of the safety of nuclear power stations.

The reconstruction plan contains a new ‘smart city’ concept, but time is being taken over the implementation process due to the extent of both the shock and damage within the country. A number of sensitive questions arise with respect to the devastated villages and towns. For instance, should all villages and towns move to higher ground in order to be safe from future tsunamis, or should they stay as before in order to revive the fishery industry, albeit at a higher risk from tsunamis? Several archaeological excavations have established that Japan has suffered a huge earthquake and tsunami approximately once every thousand years.

Meanwhile, the total volume of solid waste is 24 million tons, for instance, which is equivalent to approximately 100 years’ worth, and this must be dumped somewhere. Embanking breakwaters, highly elevated roads or railways could offer some kind of solution, but complex regulations and legislation obstruct quick decision-making.

Geospatial information technologies will prove useful for identifying scientific solutions to these and other questions. Geospatial technologies, including cadastre survey, GIS, space and airborne photogrammetry and remote sensing, laser scanning, mobile mapping system (MMS) and such like, are highly appreciated in not only damage assessment but also reconstruction planning. They can play a particularly important role in supporting decisions to help the devastated towns and villages to be rebuilt in harmony with local culture and history.

Finally, I would like to express my thanks to the Czech Society for Photogrammetry and Remote Sensing for honouring me in August 2012 for my contribution to humanism with my book, *Higher Ground: Learning from the East Japan Tsunami and Meltdown of Fukushima NPS* which was published by *GIM International*.