## Weather Modification to Prevent and Mitigate the Meteorological Hazard in Indonesia

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With increasing demands for water all over the world, the potential of enhancing the source, storage and recycling of freshwater need to be examined with awareness. Destruction and loss of life due to severe weather, which is increasing due to the impact of population growth and changing demographics, call for more attention to find a way to lessen these impacts.

Weather in Indonesia, called as maritime continent, has 2 seasons, dry and rainy seasons. During rainy season, clouds are easy to develop over Indonesian area. The dependence of rain is very high in many fields, i.e. agriculture, hydro-power and so forth. However, more rain can lead to disaster like heavy flood, which often hit Jakarta (capital of Indonesia). On the other hand, during long dry season, people suffering from the lack of water. Another disaster that happened during drought condition is forest fire which often occurred in Kalimantan and Sumatera. To overcome this problem, it is important to find solution to manage the water source.

Weather Modification Unit, which is under the Agency for the Assessment and Application of Technology (BPPT), has been doing cloud seeding for rain enhancement since 1987. This Unit has carried out cloud seeding activities all over Indonesia. The Unit has done cloud seeding not only for irrigation and hydro-power, but also for flood prevention and forest fire extinguisher.

Radar is one important tool to support this activity. A mobile X-band Doppler radar that can easily being moved to the target are is used during the project. With this capability, location of cloud can be determined.

During the presentation, we shall show cloud seeding activity carried out by BPPT for rain enhancement using aircraft as well as using ground base tower.

Keywords: Weather Modification; Indonesia; Meteorological Hazard

## References

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