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DEPLOYING A PORTABLE GROUND STATION FOR EFFECTIVE DISASTER MANAGEMENT IN
BANGLADESH**Abstract**

Bangladeshis are particularly vulnerable to the effects of climate change and the devastation brought on by natural catastrophes since they reside in a country where one-fourth of the land is only a few feet above sea level. Millions of people are currently exposed to the risk of sudden disasters as a result of a growing population density, making those who live near the coast even more vulnerable. Communications infrastructure is one of the central tenets of disaster risk management. In order to provide sufficient connection capacity and separation between the communication nodes, it is difficult to set up a place for automobiles in a mountainous area. For the purpose of preventing and minimizing the harm that a natural disaster does to domestic communications systems, it is essential to deploy various antenna applications to support communications services during disasters. This paper focuses on the development of a mobile, open-source emergency communications system for disaster management. Images from NOAA satellites have been transmitted to it and have an effect on either public or private terrestrial communications networks. An omnidirectional dipole antenna, a number of open-source software tools, and Software Defined Radio (SDR) have all been used to pick up these signals. Sequenced photographs from a satellite will show the exact location of any storm during an emergency. Hence there would be plenty of time for people from diverse regions to move to a safe environment.