Remote Sensing and Environmental Management of Nigeria’s Coastal wetlands

Henry ODUNSI, Nigeria

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SUMMARY

The coastal wetlands of Nigeria are the breeding ground for fisheries and aquatic resources. With over 38 percent of the world’s population living in the coastal zone, the wetlands are of great significance to Nigeria because of its total global primary productivity level. Nigeria’s wetlands are characterized by creeks, estuaries and rivers. This environment includes the low-lying floodplains along rivers and the mangrove swamps that inhabit specially adapted plants. One of the most significant wetland locations in Nigeria is the Niger Delta. This region is important for the oil and gas exploration activities and ranks as the third largest wetlands in the world. Remote sensing of the coastal wetlands is essential because many of the coastal areas are exposed to the danger of being submerged due to the prevailing global climate change. Environmental management is crucial due to the significant level of anthropogenic activities in the area. One of the basic techniques of environmental management is the establishment of environmental monitoring system. Recent development in remote sensing has led to the use of high-resolution spatial techniques. This methodology reveals accurate information of the environment and is capable of identifying different wetland species including the benthic habitats. Because Nigeria’s wetlands are among the most productive environment in the world, there is therefore the need for satellite remote monitoring that would help in environmental management of these productive areas.