



Natural Disasters
Policy Issues and Mitigation Strategies

Sakya



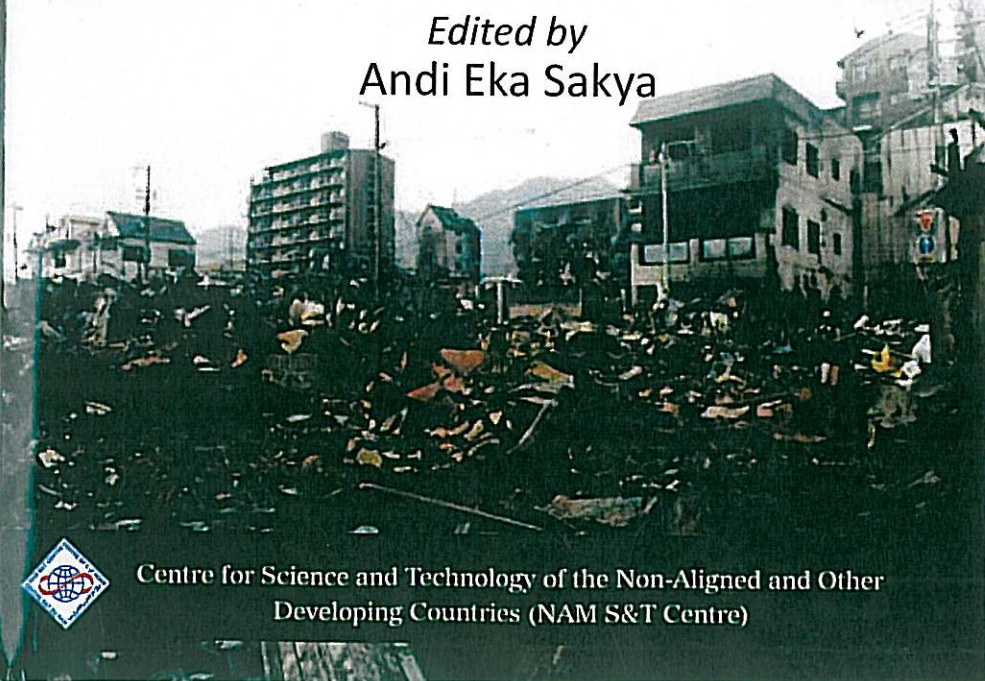
Centre for Science and Technology of the Non-Aligned and Other
Developing Countries (NAM S&T Centre)

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Policy Issues and Mitigation Strategies



Edited by
Andi Eka Sakya



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NATURAL DISASTERS

Policy Issues and Mitigation Strategies



- Editor -
Andi Eka Sakya

CENTRE FOR SCIENCE & TECHNOLOGY OF THE
NON-ALIGNED AND OTHER DEVELOPING COUNTRIES
(NAM S&T CENTRE)

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Chapter 1

ICSU ROA's Science Plan to Address Natural and Human-Induced Environmental Hazards and Disasters in Sub-Saharan Africa

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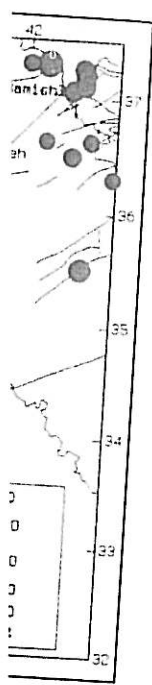
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ABSTRACT

The authors identify several factors that contribute to Africa's high vulnerability to disasters, including the high rate of population growth, food insecurity, high levels of poverty, inappropriate use of natural resources, and failures of policy and institutional frameworks. Despite the huge negative impact that natural and man-made disasters make on Africa's development, little is done to prevent them. Effective strategies to prevent hazards becoming disasters and to manage those disasters that do occur would make a lasting contribution to the quality of life and sustainable livelihoods of Africans.

The ICSU Regional Office for Africa (ICSU ROA) Scoping Group on Natural and Human-Induced Environmental Hazards and Disasters proposes the establishment of a research, capacity building and outreach programme aimed at reducing the risk of disasters and increasing resilience. The main focus of the



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Chapter 7

Risks Posed by Large Seismic Events in the Gold Mining Districts of South Africa

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ABSTRACT

Examining the occurrence of seismic activity in South Africa, the authors point out that the seismic event on 9 March, 2005 could be ascribed to past mining, and that seismic events will continue to occur in the gold mining districts as long as deep-level mining takes place and are likely to persist for some time even after mine closure. Seismic monitoring should continue after mine closure, and the seismic hazards should be taken into account when the future use of mining land is considered.

The national and local monitoring networks, operated by the Council for Geoscience and mining companies, respectively, are on a par with those installed in seismically active mining districts elsewhere in the world. However, steps should be taken to improve the quality of seismic monitoring and to ensure continuity, especially as mines change hands. The Klerksdorp and Free State gold mining districts are incorporating the risks of seismicity in their disaster