Environmental security in Sub-Saharan Africa: Global and Regional Environmental Security Concepts and Debates Revisited

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69.1 Introduction

Environmental security is a major concern in world affairs. However, the concept has not yet been coherently defined, together with its threats, and policy responsibilities (Brauch 2005, 2005a). Few countries have an official definition of environmental security that unifies thought and action. Major international organizations (UNEP, WHO, UNDP) have no agreed definition to guide policy. However, other organizations, such as NATO, list environmental security among their priorities. The definition of the term is clustered around two central concepts: repairing damage to environment for human life support and for the moral value of the environment itself; and preventing damage to the environment from attacks and other forms of human abuse. Environmental security threats often involve transborder and/or global impacts that would require international cooperation. Nation-states acting alone cannot provide environmental security. International organizations lack the capacity to address the threats. The weight of decision power rests with national governments. As a result, national sovereignty can come in conflict with actions necessary to insure environmental security.

Environmental security is sometimes confused with sustainable development. Although both are mutually reinforcing concepts and directions for policy, they mean different things. Sustainable development focuses on environmentally sound socio-economic development, while environmental security focuses on preventing conflict related to environmental factors. Environmental insecurity generally occurs as a cumulative result of high population growth, decline in quantity and quality of renewable resources and the lack or unequal access to these resources. As population grows, given existing technology, the available land per capita is reduced to smaller and smaller sizes. Community and household characteristics in addition to land use system dynamics condition the nature of these changes. Buzan (1983) defined environmental security as the capacity to live harmoniously with nature or to maintain a sustainable environment. Mohamed Salih (1994) put forward two perspectives on environmental security. The first one relates to the capacity of individuals and groups to meet their basic needs from a sustainable environment. According to the second perspective, environmental insecurity involves serious consequences for social, economic, political and physical security. Following these arguments, the traditional conception of security must be reconfigured to include non-military threats, such as human rights abuses, outbreaks of diseases, resource scarcity and environmental degradation (Moyo/Tevera 2000).

Environmental security is considered an integral part of human security. Human security refers to a state of human conditions free from threat of hunger, poverty, and armed conflict at the individual, group, community, country, region, and global levels. A society or community becomes environmentally insecure when severe environment scarcity arises and becomes a threat to national, community and individual welfare and survival under conditions of failed ecological stability, increased vulnerability to livelihood and survival, and heightened risk of armed conflict. Environmental insecurity is a collective expression of these manifestations (or, risks) that is particularly real where institutions and governance fail to prevent and resolve conflicts. Conflict here refers to disputes and clashes that arise from claims and command over agricultural land and fresh water resources, and the distribution of induced conflicts between two or more societal groups or communities as well as between states and sub-national groups that involve the use of arms. Conflict areas refer to places where there is potential (crisis stage) or actual conflict.

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69.2 Social and Economic Dimensions of Environmental Security

Several studies have emphasized the high dependency on natural resources by most African economies. Increasing demand for resources for both local and export markets, as well as escalating competition for the control of natural resources, have been a source of insecurity and have increased the incidence of environmental conflicts.

69.2.1 Water

Water stress and scarcity are widely felt in many sub-Saharan African countries, although only few cases of actual conflicts over water have been reported. Some studies have shown that countries are increasingly facing water stress since the demand for water is growing rapidly relative to supply of water resources. Getting access to water sources is more limited in rural than in urban areas. This is partly due to the pattern of population settlement relative to water sources as population is largely population settlement in high-lying areas while the water sources are found in low-lying springs. On the other hand, demand for water is increasing due to population growth and development requirements. Scarcity of water poses potential threat of conflict among riparian countries (Rwanda, Uganda, Sudan, DRC, Tanzania, Zambia, Mozambique and Zimbabwe) without established enforceable institutional arrangements governing allocation and uses. While states are more likely to fight over non-renewable than renewable resources, river water is more likely to stimulate an interstate resource war. Water is a critical resource for personal and national survival, and since river water flows from one area to another, one country’s access can be affected by another country’s actions (figure 69.1).

The boundaries of 11 southern African countries lie across fifteen river basins and straddle five lakes. It therefore follows that cooperation is built upon the mutual interest of the riparian states. Given that water is a shared resource, with most river systems, which constitute the biggest source of surface water flowing through more than one country, the resource is a constant source of potential tension. For example, countries upstream may not only pollute the water, but as a political measure may threaten to dam the river as a means of coercive diplomacy (see chap. 50 by: Ashton/Turton; chap. 51 by Kipping; chap. 52 by Borghese; and chap. 53 by Lindemann).

Water scarcity is increasingly being recognized throughout the world as a threat to human security. The growing water scarcity in Africa, mainly arising from unequal distribution of fresh water resources is a major issue of concern (figure 69.2). Thirty percent of the total runoff from Africa originates from a single river basin, the Congo (figure 69.1). As population increases and the amount of available water remain constant, the maximum per capita demand that a country supports obviously decreases correspondingly. Africa’s population grows at 3.3 per cent per annum. With this phenomenal rise, water requirements for energy generation, domestic use, agricultural intensification and industrial production increases as well. The over exploitation of water by some privileged sectors might result in acute shortage. Increasing competition can potentially destroy the existing social arrangements and mutual tolerance and lead to ethnic and social dichotomies. Currently 14 of the 53 nations of Africa are subject to water stress or scarcity and by 2025 almost half (25) of the continent is expected to be under water stress or scarcity (UNEP 2002c, figure 69.3) The main conflicts in Africa during the next 25 years could be over water, as countries fight for access to scarce resources, and that potential ‘water wars’ are likely in areas where rivers and lakes are shared by more than one country. In this regard, the Nile (DRC, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda), Niger, Volta and Zambezi basins (Mozambique, Zimbabwe, Zambia) could be cited as possible flashpoints.

Environmental-induced conflicts occur between states arising over sharing common resources such as trans-boundary waters. Conflict in a country can also spill-over into neighbouring countries such as large refugee flows. As the case of the Nile basin shows, the upstream riparian countries do not benefit as much as Egypt and Sudan. As the Nile water becomes scarce and the capacity of the upstream countries (or, the needs) increases, conflict is bound to arise unless a mechanism is in place dealing with sharing water resources, utilization and management, and distribution of benefits (chap. 48 by Adly/Ahmed and chap. 49 by Kameri-Mbote/Kindikii).

There are eight riparian countries that share the waters of the Zambezi basin. The following are issues that are potential sources of conflict: (a) increasing

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2 See: Scoones/Chibudu/Chikura/Jeranyama/Machak/Machanja/Mavedzenge/Mombeshora/Mudhara/Mudziwo/Murimbarimba/Zirereza (1996); Mortimore (1998); Tevera/Moyo (2000); Campbell/Jeffrey/Kozanayi/Luckert/Mutamba/Zindi (2002).