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**Water Policy in South Asia: Is There a Need for Change?**

In “Water Policy, Climate Change and Adaptation in South Asia,” Marittika Basu and Rajib Shaw, researchers from the Graduate School of Global Environmental Studies at Kyoto University, Japan, provide data on water availability in South Asia and assess the existing water policies of the region’s countries. The authors analyze water availability in each country of the region and conclude that the water crisis is severe and obvious in almost all the countries in South Asia. Basu and Shaw use statistical research to examine water availability in South Asian countries, theoretical analysis to draw a connection between water scarcity and climate change, and content analysis of water policies to examine the framework in South Asia. The authors conclude that the existing water policies do not fulfill the needs of the region’s population and offer some modifications to current water policies in the region.

Basu and Shaw begin their research by introducing the issue. According to various studies, about “two-thirds of the world population will encounter severe water scarcity over the coming decades” (Basu & Shaw, 2013, p. 175). The authors argue that today many parts of the earth face water scarcity. They connect lack of safe drinking water to food insecurity, inadequate sanitation, various health issues, and environmental degradation. The researchers also state that water scarcity in different regions can potentially become a reason of violent conflicts.

The authors proceed to introduce the situation in different South Asian countries. The region comprises Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka, and Afghanistan. Basu and Shaw outline water scarcity in South Asia, stating that the region has the lowest level of water resources per capita. The researchers provide some statistics regarding South Asia’s annual renewable water resources, water withdrawal, and sectoral uses. According to the data, India has the highest amount of total renewable water resources in the region (1911 km3/year). Pakistan has the highest per capita per year withdrawal of total water resources (1057 m3) closely followed by Afghanistan (1055 m3) (Basu & Shaw, 2013, p. 176). After analyzing each country’s water availability, the authors conclude that rapid population growth, high number of poorly designed and badly located structures, pollution by industrial run-offs, rapid urbanization, as well as floods and droughts contribute to water scarcity in the region.

Next, Basu and Shaw specifically focus on climate change as a factor that aggravates water scarcity in South Asia. According to the authors, South Asia is the most disaster-prone region in the world. This region is highly exposed to extreme climate events and the effect will be enormous as population increases in South Asia. The researchers assert that climate change not only affects surface water flow; it also affects the depths of groundwater tables and groundwater recharge rates (Basu & Shaw, 2013, p 180). According to various studies, extreme weather events, such as heat waves and intense flooding, are being forecast in South Asia due to climate change. Water supply in the region is also vulnerable to the melting of glaciers, since the perennial rivers in India, Nepal, Bangladesh, and Pakistan depend on them for their supply. As melting takes place, the flow will increase. As the glaciers get depleted, the flow into rivers will decline significantly. Thus, there will be less water available in the rivers. The authors state that while the frequency of more intense rainfall has increased in South Asia, the numbers of rainy days and total annual amount of precipitation have decreased drastically. Also, monsoon dynamics, essential for river systems in the region, are expected to be widely influenced by climate change. According to the researchers, the summer monsoon season is critical to the agriculture, economics, water supply, ecosystems, and human health of Bangladesh, India, Nepal, and Pakistan (Basu & Shaw, 2013, p. 181). An eastern shift in monsoon circulation was predicted because of changing climate. This shift results in more rainfall over the Indian Ocean and Bangladesh and reduced rainfall over India, Nepal, and Pakistan. The estimated reduction in rainfall would result in less water storage and greater water stress during the monsoon period. The drought conditions caused by climate change are expected to worsen and decrease water availability in regions that are already experiencing water stress. Basu and Shaw argue that “water resource managers should aim to reduce climate change vulnerability and uncertainty by including robust adaptive strategies in the decision-making process” (p. 181).

The authors move on to analyze the water policy framework in South Asia and discuss its shortcomings. They assert that in order for the implementation and enforcement of water policy to be effective, an adequate institutional and governance framework which is transparent, legitimate, and participatory has to be created. While sectoral uses of water, institutional arrangements, information systems, and groundwater management are common in South Asian water policies, effective methods for implementation in practice are lacking in most of the policies. According to the researchers, people in rural and urban communities are rarely involved in resource planning and management. Women, who are often central to finding and managing potable water, are hardly consulted. In South Asia, there is still a lack of institutional capacity to deliver services and manage water resources efficiently. Many issues, such as climate change, rainwater harvesting, and wastewater treatment, remain at a theoretical level.

The authors insist that “national policies and law for water need to be specifically developed in each country; and modified to improve institutional capacities and information management” (Basu & Shaw, 2013, p. 187). Private sector involvement as well as partnerships between private and public sectors should be emphasized to obtain equitable access to water. Moreover, to make the policy effective in a long run, there needs to be a valid monitoring system, evaluation and estimation, research and learning at all levels, especially in public sector institutions.

In the last section of the article, Basu and Shaw argue that methods of adaptation to climate change have to become central in national water policies of the countries in South Asia. According to the authors, “setting up local natural resource management bodies, choosing alternative livelihoods and migration in extreme cases” are some of possible adaptation measures (Basu & Shaw, 2013, p. 187). The researchers state that current adaptive practices adopted by the poor in the region, such as labor migration, child labor, and increasing reliance on loans, are making people even more vulnerable. Therefore, there is a need to educate people about the issues and develop a better climate change adaptation strategy. Also, researchers agree that stakeholder involvement is crucial to adaptation: “water-related government bodies, ministries of finance, planning and development, agriculture, health and energy sectors, NGOs and civil society organizations” should collaborate (Basu & Shaw, 2013, p. 188). The authors argue that good governance that supports involvement, access to information on rights and policies, decentralization, equity, gender balance, and accountability of vulnerable communities have to be established in order for adaptive policies to be successful. Current and future climate change impacts need to be considered and should be included in national budgets. The authors state that thus far, various climate change adaptation plans and policies have not been implemented.

This paper provided data on water availability in South Asia and examined the existing water policies of the region’s countries. The authors analyzed the shortcomings of the current water framework in the region and offered ways to improve current policies. The article focused on climate change and its contribution to water scarcity in the region, and the researchers insist that adaptive measures have to become a high priority in South Asia.

Reference

Basu, M., & Shaw, R. (2013). Water policy, climate change and adaptation in South Asia. *International Journal of Environmental Studies,* 70(5), 175-191,

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