Chapter 2
Integrated Watershed Management for Sustainable Development

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ABSTRACT

The over exploitation of natural resources (soil, water, fauna and flora) is critically affecting the social, economic and environmental needs of the current generation and is feared to risk the ability of the future generation to meet its needs. Nowadays citizens in many countries are facing severe livelihood challenges ranging from seeking for external aids for existence to massive life devastation due to natural hazards such as flooding & land slide imposing death tolls. The degradation of the natural environment imposes the threatening of life not only in those less developed nations but also life all over the globe. The problem is more pronounced in less developed countries like the Eastern Nile Catchment nations. Sustainable development is hoped nowadays to be a promising solution. In this regard integrated watershed management is a potential tool for bringing about such a promising tool, by laying better ground for sustainable development. This chapter is prepared with the intent of showing the link between integrated watershed management and sustainable development which a country envisages to reach, and the contribution of integrated watershed management to sustainable development. Various previous documents are reviewed and used as sources of information for the preparation of the write up. The author's professional experience on the current overall natural resources condition is an added value, too. Sustainable development, which can be achieved through proper conservation and utilization of the existing resources by employing integrated watershed management, is development which meets the needs of the present without compromising the ability of future generations to meet their own needs,. Integrated watershed management is the process of formulation and carrying out a course of actions involving the manipulation of resources in the watershed to provide goods and services without adversely affecting the soil, water, vegetation base and other elements of the ecosystem, by employing multi-disciplinary teams.

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INTRODUCTION

General Background and Objectives

The main watershed areas of Eastern Nile Countries (Ethiopia-Sudan-Egypt) are of the world's most critically eroded ones. Due to the increasing problems of population and poverty, it is important to control erosion in these areas. The ecosystem of the region is being highly troubled and is becoming degraded, to the extent that it feels painful for its inhabitants and risking seriously the life of future generation.

While the region's water and land resources endowments are abundant, very little has been accomplished in the way of proper and sustainable exploitation for the economic benefit of the people of current generation and availing the agenda on the fate of the future generation. The main challenges on the inability of nations to use the land and water resources are complex in nature and widespread. Some to mention are poverty and/or poor livelihoods condition, geographic limitations related to topography and climate, weak policies and weak institutional arrangements to manage development efforts, and similar limitations. This inability to go ahead has been and is being imposing severe and additional burdens to the environment/land resources and the residing community. In this regard, development systems and accomplishments in such areas are neither benefiting the current generation nor saving for the future generation. The region has been the victim of food insufficiency and famine and is not hoping to last shorter if the current trend in the management and utilization of the natural resources is allowed to continue.

Since the 1980s aid to the third world is subject to fashion; some are trivial and short-lived and but others are long lasting and reflect deep concerns about the nature and direction of development, and today's fashion is sustainable development (Todaro & Smith, 2003). The concept of sustainable development has attracted the attention of many more development workers, researchers, academicians and policy makers too.

People all over the world are feeling the impacts of global flood hazards, typhoons, energy looses, drought-induced food shortages, and similar shortfalls which discomfort livelihood situations. More importantly, the third world, and specifically the Eastern Nile nations are the hard-hit parts in regards to drought-driven famine and starvation and in-ability to make life comfortable. The problems are complex and serious and can't be addressed in the same way they are created. But it is possible to act against them (IISD, online June 2008). It's that basic optimism that motivates development practitioners, associates and all to innovate for a healthy and meaningful future for this planet and its inhabitants. This chapter too is prepared with the objective of showing the contribution of integrated watershed management for sustained use of natural resources thereby its contribution for sustainable development.

Integrated watershed management as a process of creating and implementing plans, programs, and projects to sustain and enhance watershed functions that affect the plant, animal and human, communities within a watershed boundary, and also in participatory way could be able to bring a sustained development to the nations. Landowners, land use agencies, storm water management experts, environmental specialists, water use surveyors and communities all need to play an integral part in the management of a watershed, if sustainable development is expected to be in place, and therefore, livelihood security is demanded.

For the preparation of the chapter, literatures were reviewed to draw important facts on what sustainable development is to mean, how sustainable development could be achieved and what integrated watershed management is to help for sustainable development.