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### Citation Information

Méndez Torrico, Roberto and MacKinnon, Anne, "Integrated Water Management in a Growing Urban Area: Cochabamba, Bolivia [abstract]" (2002). *Allocating and Managing Water for a Sustainable Future: Lessons from Around the World (Summer Conference, June 11-14)*.

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Roberto Mendez Torrico & Anne MacKinnon,  
*Integrated Water Management in a Growing Urban Area: Cochabamba, Bolivia* [abstract], in *ALLOCATING AND MANAGING WATER FOR A SUSTAINABLE FUTURE: LESSONS FROM AROUND THE WORLD* (Natural Res. Law Ctr., Univ. of Colo. Sch. of Law 2002).

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# **Integrated Water Management in a Growing Urban Area: Cochabamba, Bolivia**

(A watershed program tested by the most recent period of heavy rain, 2000 – 2001)

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## **ABSTRACT**

The watersheds of the Tunari Mountain Range and the growing city of Cochabamba are closely bound together by their natural resources - particularly the water, which is important both for farming families settled in the watersheds and the urban population in the Central Valley below. We present experiences of the Programa Manejo Integral de Cuencas (PROMIC) and its allies as they faced the problem of structural degradation of the watershed. The approach offers hope of supporting sustainable solutions to flood management and urban water supply problems in an area where water has been an emotional and political issue in recent years. The approach involves the use of integrated watershed management (MIC) gradually covering the entire hydrographic region, following a plan and giving priority to the implementation of MIC in watersheds with a high potential for damaging the urban infrastructure in the main valley below, during periods of heavy rains.

The paper describes the methodological process used, and emphasizes the character of the elaboration and execution of MIC plans, which rely heavily on participation by watershed users, particularly the farming families high in the watershed. at all levels. The success of actions taken under the MIC plans has been tested recently by the record rainfall of the 2000-2001 season. Watersheds where MIC actions had been taken experienced minimal damage from the rains, in dramatic contrast to watersheds where MIC has not yet been introduced or has just begun.

We present both the physical data and the perceptions of watershed residents regarding the effect that MIC activities have had on the watersheds and the urban areas influenced by those watersheds. Finally the paper describes how PROMIC is currently working to extend its integrated watershed management approach to new watersheds, through alliances with new social and institutional partners.

Key words: Watershed management, sustainable agriculture, erosion, hydraulic control, rehabilitation of degraded areas, agricultural extension, environment

PROMIC is supported by the national government of Bolivia through the office of the prefecture of the state of Cochabamba, by the Swiss Agency for Development and Cooperation (SDC) and the Belgian Technical Cooperation, Inc. (BTC).