Environment, Development and Sustainability (2007) 9:229–239
DOI 10.1007/s10668-005-9020-5

THE ECONOMIC AND ENVIRONMENTAL OUTCOMES OF MICROFINANCE PROJECTS: AN INDIAN CASE STUDY

S. JHA[1,2,*] and K.S. BAWA[2,3]
[1]*Indian Forest Service, New Delhi, India*
[2]*Department of Biology, University of Massachusetts, Boston, MA, 02125, USA*
[3]*Ashoka Trust for Research in Ecology and the Environment, Bangalore, India*
*(*author for correspondence, e-mail: sjha21@yahoo.com)*

(Received 18 February 2004; accepted 2 December 2005)

Abstract. Microfinance projects now seek to achieve improvement in environmental quality in addition to poverty alleviation. Achievement of these goals may depend upon the economic and environmental impact of microfinance businesses. This study is a quantitative analysis of these outcomes for Ecodevelopment, an Indian microfinance project, which aims to prevent forest degradation by poverty alleviation. The study divides businesses into perishable goods, non-perishable goods, simple skills, and special skills and measures their economic outcome by two indicators, repayment percentage and continuity of businesses. The study examines the effect of loan amount on the economic outcome of businesses. To quantify the environmental outcome, it analyzes the use of firewood or fodder and release of pollutants by businesses. The results show that loan amount does not affect the economic outcome, special skills have best performance, and skills cause less pressure on forest resources. These results suggest the need for development of knowledge-intensive skills, involvement of institutions in the operations of business, and inclusive policies for protected area management.

Key words: forest-based enterprise and service, India, local institutions, microfinance projects, partnership, small businesses, special skills.

1. Introduction

Over the past 30 years, the growth of microfinance projects has been phenomenal. These projects were first recognized in the 1970s for their potential to reduce rural poverty in developing countries, but over the years they have reached the poor neighborhoods of developed countries as well (McNamara, 1973; Conlin, 1999). By 1997, microfinance projects had provided loan to 10 million households. The number exceeded 80 million by 2003 and is expected to reach 100 million by 2005 (Stix, 1997; Mosley, 2001; Grameen, 2002; Microcredit News, 2004). Furthermore, these projects now address not only poverty alleviation, but also wider dimensions of development such as empowerment of women, enhancement of social capital, and improvement in the environmental quality (Srinivas, 1998; Anderson et al., 2002).

Readers should send their comments on this paper to: BhaskarNath@aol.com within 3 months of publication of this issue.

The goal of positive economic as well as environmental outcome for microfinance projects is desirable but challenging. It is desirable because poverty degrades the environment; the goal is challenging because measures to alleviate poverty may, in some situations, impose high environmental cost. These costs may include intensive use of natural resources or excessive amount of pollutants. Therefore, microfinance projects may need to support those businesses, which are poverty-alleviating as well as environment-friendly. Quantitative analysis of economic and environmental outcomes can help identify such businesses. Although microfinance projects have generated a vast amount of literature, this issue has not been explored. For example, the question does not figure in a review of 51 papers published between 1997 and 2002 (Gale Group, 2002). This work is an attempt to fill the information gap.

This study provides a quantitative analysis of the economic and environmental outcomes for a microfinance project, Ecodevelopment (''Eco''), in the villages near Kalakad–Mundanthorai Tiger Reserve (KMTR) in Tamil Nadu state (India). It uses repayment (pay back) on loan and continuity of business for economic indicators. We recognize that all businesses will have impact on the environment, but we consider only those businesses, which depend upon KMTR for firewood and fodder and which release chemicals to repair the machines. Accordingly, the environmental indicators are, use of firewood and fodder, and release of pollutants. We identify measures to increase the economic and environmental outcomes, and recommend supportive policies. Our study should be a contribution to the Millennium Development Goals (United Nations, 2005).

Here we provide a brief description of the study area, explain the choice of indicators, describe the methodology, state the results and discuss their implications.

2. Study area

The villages in this study are located on the periphery of KMTR, which is one of the 27 tiger reserves in India (Map) Figure 1. It is the southern-most habitat of the Indian tiger and it is also famous for the lion-tailed macaque, an endangered species. KMTR has an extent of 925 km^2 and it is a part of the Western Ghats, one of the 25 hotspots of biodiversity in the world (Myers et al., 2000). Due to the variation in altitude and rainfall, KMTR has many types of forests such as scrub, grassland, deciduous, and evergreen vegetation. The forests are rich in the plants, which support the traditional medicinal systems of indigenous peoples and other population groups. Besides the richness of biodiversity, KMTR has abundance of water. It has a dozen rivers of which six have been dammed. The impounded waters make artificial lakes, which can provide recreational benefits, but their potential is yet to be realized.

Human habitations are present within the forest and in peripheral villages. There are 500 households within of the reserve. These households include indigenous peoples (''Kanis''), new settlers, and the employees of hydroelectric projects. Besides these populations, KMTR attracts visitors. The waterfall at Mylar is popular in nearby towns and villages because people believe a bath in the waterfall will be good