## ECONOMIC AND ECOLOGICAL IMPACT OF PANSHET RESERVOIR

A Study in Problems And Ecodevelopment Alternative

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Sponsored by Department of Environment Government of India 1986

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#### **Preface**

Multi-purpose irrigation and hydro-electricity projects have been hailed as milestones on the path of development and progress in the developing countries. However, in the recent years it is questioned as to whether these large reservoirs are an unmixed blessings. The corrosive effects that such large water bodies have on the ecology of the region are being increasingly realised. The destruction of forest and wild life and the displacement of the people in the catchment areas are indeed very heavy costs that are being paid for increasing the supply of irrigation water and electricity. It is now realized that realistic assessment of these costs must be made. With this aim in view a study to examine the ecological and economic impact of deforestation in the Ambi river valley (Pune district) consequent to the construction of a major dam near Panshet village, 40 km.s, west of Pune city was taken up. The study area extended over the entire catchment of the Panshet reservoir and included 24 villages. The results of the investigations into the socio-economic conditions of the dam-affected families and the status of vegetation and other life-forms in the catchment are presented in the following pages.

The various facets of the problem under consideration are discussed in Chapter I. In Chapter II some background information relating to the physical setting - topography, rainfall, soils etc., is presented. The IIIrd Chapter discusses

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the changes in the vegetation in the Western Ghat region and the present-day vegetation of the catchment area which is divided into four zones considering the geo-physical conditions.

The economic activities of the people, levels of production in various activities viz., cultivation, forest exploitation, livestock rearing, living conditions, health status of the inhabitants and the problems they face are detailed in Chapter IV. Case studies of villages Kuravati from Zone I, Shirkoli from Zone II and Mangaon from Zone III were carried out to get a deeper insight into the characteristics and status of plant life in each zone. Suggestions for redevelopment are made taking into consideration the present situation. These are presented in Chapter V. In Chapter VI the alternatives for the redevelopment of the entire region are formulated keeping in view the economic and ecological considerations. Recommeendations flowing from the study are presented in the last Chapter.

This research project was funded by the Department of Environment, Government of India and we gratefully acknowledge the receipt of the research grant. We would like to place on record our gratitude to all the households approached for interview who whole-heartedly cooperated and supplied us the necessary information. We are thankful to the officials of the irrigation department, forest department, rehabilitation office, Velhe Panchayat Samiti, Poona District Milk Producers'

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Cooperative, the <u>talathis</u> of various villages for providing us the official statistics from their records, and the staff of the soil testing laboratory in Agricultural **College**, for their kind help in the analysis of soil samples.

Discussions, and field trips together with Shri Prakash Gole, Smt. Swati Gole, Dr. V.D.Vartak, Dr. Madhav Gadgil and Dr. Gunale at different stages of the work were of great help. We are grateful to them for their valuable suggestions and comments. Thanks are due to Shri A.V.Gogte who shared the main responsibility of the investigational work and Smt.Rajani Gangal who neatly typed the Report.

1 August 1986

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