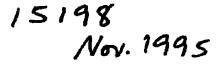


Economic Development Institute of The World Bank

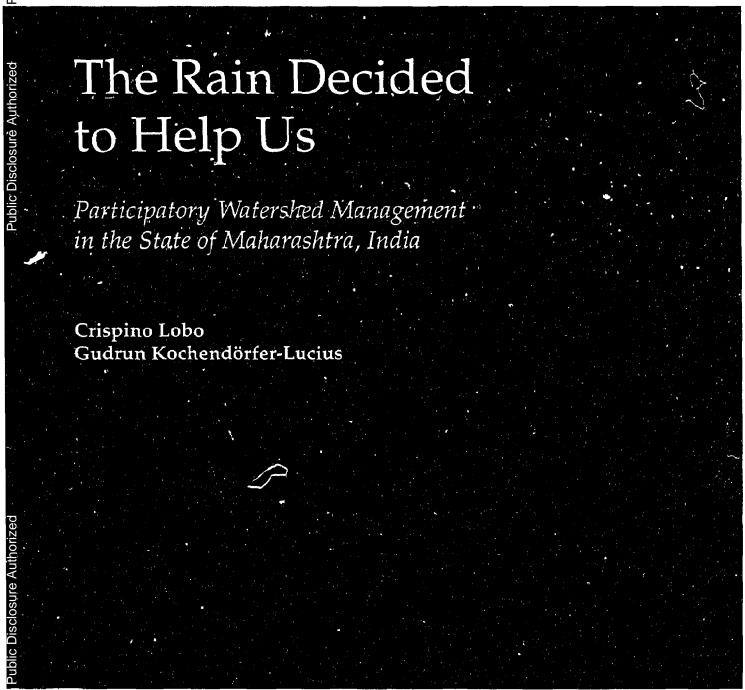


Social Centre





Deutsche Gesellschaft für Technische Zusammenarbeit GmbH



EDI LEARNING RESOURCES SERIES

The Rain Decided to Help Us

Participatory Watershed Management in the State of Maharashtra, India

Crispino Lobo Gudrun Kochendörfer-Lucius

The World Bank Washington, D. C.

O 1995

The International Bank for Reconstruction and Development / THE WORLD BANK 1818 H Street, N.W. Washington, D.C. 20433, U.S.A.

All rights reserved Manufactured in the United States of America First printing November 1995

The Economic Development Institute (EDI) was established by the World Bank in 1955 to train officials concerned with development planning, policymaking, investment analysis, and project implementation in member developing countries. At present the substance of the EDI's work emphasizes macroeconomic and sectoral economic policy analysis. Through a variety of courses, seminars, and workshops, most of which are given overseas in cooperation with local institutions, the EiDI seeks to sharpen analytical skills used in policy analysis and to broaden understanding of the experience of individual countries with economic development. Although the EDI's publications are designed to support its training activities, many are of interest to a much broader audience. EDI materials, including any findings, interpretations, and conclusions, are entirely those of the authors and should not be attributed in any manner to the World Bank, to its affiliated organizations, or to members of its Board of Executive Directors or the countries they represent.

Because of the informality of this series and to make the publication available with the least possible delay, the manuscript has not been edited as fully as would be the case with a more formal document, and the World Bank accepts no responsibility for errors. Some sources cited in this paper may be informal documents that are not readily available.

The material in this publication is copyrighted. Requests for permission to reproduce portions of it should be sent to the Office of the Publisher at the address shown in the copyright notice above. The World Bank encourages dissemination of its work and will normally give permission promptly and, when the reproduction is for noncommercial purposes, without asking a fee. Permission to photocopy portions for classroom use is granted through the Copyright Clearance Center, Inc., Suite 910, 222 Rosewood Drive, Danvers, Massachusetts 01923, U.S.A.

The complete backlist of publications from the World Bank is shown in the annual *Index of Publications*, which contains an alphabetical title list (with full ordering information) and indexes of subjects, authors, and countries and regions. The latest edition is available free of charge from the Distribution Unit, Office of the Publisher, The World Bank, 1818 H Street, N.W., Washington, D.C. 20433, U.S.A., or from Publications, Banque mondiale, 66, avenue d'Iéna, 75116 Paris, France.

Crispino Lobo is coordinator of the Indo-German Watershed Program in Maharashtra, India. Gudrun Kochendörfer-Lucius is senior policy planner at the GTZ and chair for macroeconomics and development economics at Giessen University in Germany.

ISSN: 1020-3842

Library of Congress Cataloging-in-Publication Data

Lobo, Crispino, 1956-

The rain decided to help us: participatory watershed management in the state of Maharashtra, India / Crispino Lobo, Gudrun Kochendörfer-Lucius.

p. cm.—(EDI learning resources series) ISBN 0-8213-3414-X

1. Watershed management—India—Maharashtra—Citizen participation. 2. Community development—India—Maharashtra—Citizen participation. I. Kochendörfer-Lucius, Gudrun. II. Title. III. Series.
TC503.5.M34L63 1995
333.91'15'0954792—dc20

95-31209

Contents

Foreword	v
A Word from Practitioners	vi
Acknowledgments	ix
Glossary	×
Summary	1
Pimpalgaga Wagha	1
Pimpalgaon Wagha From One Program to Many	2
The Social Centre's Strategy and Approach	3
Lessons Learnt	4
Conclusion	5
1. An Overview of the Biomass Resource Base in India	7
2. Methodology of the Study	9
Approach	9
Partners	10
Methodology	10
Life Stories	11
3. Pimpalgaon Wagha: Background	13
The Village's Natural Subsystem	13
The Socioeconomic Subsystem	14
The Village's Life Story as Recounted by the Village Elders	15
4. The Process of Promotion and Participation	17
The Social Centre: The Area Manager's Story	18
The Government: The Deputy Collector's Story	20
The WSD Program: The Story of a Farmer and Watershed	
Committee Member	21
5. The Process of Implementation	23
The Developmental Context of Government Schemes	23
Local Institutional Actors	24
Relationships between the Actors	29

6. Life Stories: Giving the People a Voice	31
Life Story of a Landless Female Laborer	32
Life Story of a Small Farmer with Some Irrigated Land	33
Life Story of a Small Farmer with Some Irrigated Land	
(Backward Class)	35
Life Story of a Medium Farmer with Some Irrigated Land	37
Life Story of a Female Rainfed Farmer	39
Life Story of a Landless Stonebreaker	41
7. The Impact of Watershed Development in Pimpalgaon Wagha	43
Impact of the WSD Program on Agriculture	44
Impact of the WSD Program on Incomes	47
General Economic Impact	49
Impacts on Natural Resources	51
Impacts on Human Resources	51
8. Lessons Learnt	53
Lessons Learnt by the Government	53
Lessons Learnt by the Social Centre	53
Lessons Learnt at the Operational Level	56
Tips for Development Practitioners	57
Appendix: A View from Within—The Life Stories of the People	
of Pimpalgaon Wagha	61
Motivation to Participate in the WSD Program	61
Contribution to Success of the WSD Program	62
Individual Evaluation of Benefits Achieved	64

Views on Effects of the Changes in Pimpalgaon Wagha

Reflections on the Future

Contents

65 65

Foreword

Current development strategies stress the importance of beneficiary participation in the development process. The Economic Development Institute's Environment and Natural Resources Division addresses this issue in a number of its training activities.

This case study describe the process of participation during the implementation of a watershed development program in the village of Pimpalgaon Wagha in India. It highlights joint action by a number of stakeholders, namely, a nongovernment organization, government representatives, and most important, the people of Pimpalgaon Wagha. It provides useful insights into the process of participatory development by presenting the life stories of certain villagers of Pimpalgaon Wagha. The case should be of interest to students and development practitioners alike.

Vinod Thomas Director Economic Development Institute

A Word from Practitioners

There are many imponderables in the process of development. Most of our so-called recommendations in this regard come either from hindsight (from analysis of failed experiences) or from wishful thinking. We know from some of the development projects, especially when they are government sponsored ones, that they failed because they did not adequately take into account the people's needs, aspirations, and capacities. But this is hindsight. And it leads us often to wish for participatory development, that rather elusive phenomenon of government funding, nongovernmental organization (NGO) mobilization, and people's active planning and participation. But how does one go about it? Can it happen in actuality? What are the possibilities and the constraints?

The Rain Decided to Help Us is a useful and interesting case study because it carefully documents one such attempt at achieving village development through watershed management. In vast areas in the semi-arid tropics, the key to agricultural development is improving farming systems through better soil and rain-water management at the watershed level. But this calls for community action, which, of course, is not the easiest thing to achieve.

But here is a case study that takes us through the process of defining, and then mobilizing, the community. It recounts the stage-by-stage learning process, the elements of outside assistance and funding, the government's responses, the writ of the monsoon gods. There is enough material here to discuss the experiment from a number of angles. It is, therefore, a valuable contribution to our understanding, not only of watershed development programs, but also of participatory development projects, and of government-NGO partnerships.

Like all good case studies, it documents the process of development, rather than merely recording its achievement or failure.

Aruna Bagchee Secretary of the Ministry of Tribal Affairs State of Maharashtra articipation has become a popular slogan in development, more spoken and written than practiced. The Social Centre is an organization that has been struggling to turn the rhetoric into reality.

There are many causes of poverty. What this study of Pimpalgaon Wagha shows is the potential for an intensive, patient, sustained, and participatory approach that concentrates on community action and community resources to enable villagers to transform their village economy. For many who live in Pimpalgaon Wagha the material conditions of life were dramatically improved as a result of the participatory watershed development program.

The account given here is rich in revealing detail. Others who wish to facilitate participatory watershed development and management will be struck by the insights from the eloquent lifestories that ring so true, such as those described in "The View from Within" and the "Lessons Learnt." These deserve careful study, for they provide an agenda for future joint planning and action by village communities, nongovernment organizations, and government. Not least among these is the injunction that "The project must be accountable to the people" and the Social Centre's view of itself as a supporting and enabling institution, with villagers progressively taking full responsibility.

The critical reader will ask how special this case is, and about the scale, speed, cost, and quality of the approach described here. Pimpalgaon Wagha, like Sukhomarji in Haryana and Ralegaon Siddhi in Maharashtra, did receive special, sensitive, and sustained attention, both from the Social Centre and from senior government staff. Sometimes special pilot projects, like the Mohini Water Cooperative Society near Surat and also in Maharashtra, are difficult to replicate. Pimpalgaon Wagha may have faced that danger, but the key in overcoming it was participation. The more people plan and act for themselves and own the process and achievements, the more replicable the approach. Moreover, once it has been shown what can be achieved physically, economically, and socially, others can come, see, listen, learn, and go home and do likewise. This account takes us up to 1992, and in the Summary section, the authors bring us up to 1994, by which time watershed development activities have been initiated on more than 45,000 hectares, including self-help groups in 27 villages, banks, about 20 NGOs of various types, and several government departments in Maharashtra.

The publication of this account is greatly welcomed. Other observers have stressed other aspects: that "farmers are engineers"; the importance of learning from local soil and water conservation and concentration technology; the capabilities of villagers who have shown they can do their own reconnaissance, mapping, and planning; and the crucial importance of training NGO and government staff to change their behavior and attitudes. The Rain Decided to Help Us adds to and complements these principles with its own insights and its very practical lessons, not the least the relations between NGOs and government. Let us hope that these lessons will be widely disseminated and that many more villagers and staff of NGOs and government will be able to change what they do, as we all continue to learn from a whole range of experiences. By adding, so accessibly, to those experiences, the authors have helped in the search for better and more sustainable ways to reduce poverty and to enhance well being in difficult conditions.

Robert Chambers, Professor
Institute of Development Studies, University of Sussex

Acknowledgments

The authors would like to thank the staff and management of the Social Centre, the people of Pimpalgaon Wagha, and the various government officials who gave their time and shared valuable insights. This study would not have been possible without their active and enthusiastic support.

Special credit goes to Joe Tribhuwan of the Social Centre for organizing the people of Pimpalgaon Wagha into a cohesive group oriented toward regenerating and managing their environment along sustainable lines. He spent several months and many a late night documenting his experience, sharing his insights, and patiently clarifying our misconceptions. Our sincere thanks go to him. Special thanks are also due to the Village Watershed Committee and to the many people of Pimpalgaon Wagha who participated in this study. Their names are too many to be enumerated here.

Our sincere thanks are especially due to Hermann Bacher. Father Bacher founded the Social Centre in the 1960s. The many hours of delightful discussions with him enabled us to appreciate the complexity and dynamics of rural life and its intricate, and often delicate, relationship with the local social, political, economic, cultural, and administrative mechanisms and institutions.

Father Edmund D'Souza, the erstwhile executive secretary of the Social Centre, graciously gave us every assistance by way of access to the centre's resources, personnel, and information. We acknowledge the assistance, guidance, and advice of S. B. Kulkarni, executive officer of the Social Centre, with appreciation and gratitude. Special thanks go to Manda Kshetre, who patiently typed the various drafts of the manuscript. The authors are particularly grateful to Veit Burger, who brought this study to the attention of EDI and shepherded it through the publication process, as well as to Anuja Adhar, who painstakingly went through the manuscript and edited it. Special thanks go to Aruna Bagchee and Robert Chambers, who despite extremely busy schedules found time to write some thought provoking words about this book.

This case study is one of five carried out within the scope of the supraregional pilot project, Natural Resources Management by Self-Help Promotion of the Deutsche Gesell-schaft für Technische Zusammenarbeit (GTZ) GmbH (German Agency for Technical Cooperation). We would like to thank Thomas Schwedersky of GTZ for his support and partial financing of this publication. The objective of this project is to improve the dissemination and application of self-help and participatory approaches in conserving and using natural resources wisely. The case studies recount the practical experiences gained.

Any errors in the text are solely the authors' responsibility.

Glossary

Exchange rate In 1992, Rs 26 = US\$1.

AFPRO Action for Food Production, a technical support organization Annewari System of land assessment based on productivity and meas-

ured in terms of the former monetary unit, the anna

BDO Block Development Officer

Backward classes Backward classes are those which occupy the lowest social

standing in traditional Hindu caste society

Bund An embankment used especially in India to control the flow of

water (as on a river or on irrigated land)

Collector Administrative head of a district, in charge of revenue collec-

tion and law and order

COWDEP Comprehensive Watershed Development Program, launched

by the government of Maharashtra in 1982

DPAP Drought Prone Area Program DRDA District Rural Development Agency **EGS Employment Guarantee Scheme** GoM Government of Maharashtra

Gram Sabha All members living within the revenue boundaries of a village

with voting rights. The Gram Sabha makes decisions about all

matters concerning the village.

Gramsevak Village-level government officer

Gully A miniature valley or gorge worn in the earth by running water

through which water usually runs after rains

IRDP Integrated Rural Development Program

Kharif One of the two main growing seasons in India. It relates to

India's autumn and lesser crop that consists chiefly of corn, cotton, maize, and pearl millet. These crops are sown in June just before the monsoon rains, and are harvested from August on.

Mahila Mandal Women's Group

MLA Member of the Legislative Assembly (state assembly to which

members are elected by the people)

NGO Nongovernmental organization

Nullah Watercourse

PACS Primary Agricultural Cooperative Society Padva The Hindu New Year, celebrated as a festival

Panchayat Village-level administrative and development body demo-

cratically elected (Gram Panchayat) by the villagers. Its task

is to administer the village and implement various

development schemes. It is largely financed by government

funds. In Pimpalgaon Wagha, panchayat members are nominated by the Gram Sabha, because the villagers believe that

elections are divisive and would set back progress.

Police Patil Villager who is a local representative of the police depart-

ment

Rabi In India, the important group of crops, including cereals

(especially wheat), fodders, mustard, etc., that are sown in October and November and harvested in March and April

Sarpanch Elected head of the panchayat

Savkar Moneylender SC Social Centre

Scheduled castes Scheduled castes are backward castes, who are specifically

mentioned in the Constitution of India as needing special at

tention and support

Scheduled tribes Scheduled tribes are those specifically mentioned in the Con-

stitution of India. They are generally very poor, and socially

and educationally disadvantaged

SHG Self-help group

Shramshakti Yojana Rural Development through Labor Power

Tribes are those social groups who are outside the traditional

caste structure. They are generally considered to be the origi-

nal inhabitants of India (aboriginal).

VWC Village Watershed Committee

WSD Watershed development

Summary

The innovative and effective role nongovernmental organizations (NGOs) have played in addressing poverty and related issues has received much attention of late, both at the national and international levels. Institutions all over the developing world have begun setting aside substantial sums for disbursement through NGOs for a wide variety of grassroots activities. However, until recently, in most developing countries NGOs have been operating in a political and institutional environment that was at best indifferent or at worst hostile. Moreover, most of the NGOs in developing countries are small outfits with little infrastructure that are dependent on small, and usually uncertain flows of funds. Their influence on the major local institutional actors is marginal, and they have little impact at the policy level.

While many NGOs can point to at least one successful project and some innovative interventions, only a few have been able to replicate these successes on a scale large enough to create an impact. One such development has occurred in the Indian state of Maharashtra and involves a voluntary agency called the Social Centre. Established in 1968, the Social Centre had focused its attention on community building through land and water resource development. In 1988, it oriented itself toward natural resources management along watershed lines and decided to involve entire village communities in regenerating and rehabilitating their environment. This study focuses on the watershed development (WSD) program in the village of Pimpalgaon Wagha in the Ahmednagar district.

Pimpalgaon Wagha

Pimpalgaon Wagha is a village of 840 hectares, with an annual average rainfall of 511 millimeters and a population of about 879 people. Nestled at the foot of a range of rocky, barren hills and located in the rainshadow belt of the Western Ghats, drought is a recurrent problem. Before the introduction of the WSD program, drinking water was not available in the summer and had to be supplied by government tankers. With the support of the Social Centre, the WSD program was launched in 1989 and was completed in 1994.

The Actors

The complexity of the WSD program in Pimpalgaon Wagha provided common ground for interaction and cooperation among various institutional actors, for example:

- The Social Centre, which mobilized the villagers and helped them set up the Village Watershed Committee (VWC). The Social Centre also provided financing, technical input, and management expertise.
- The Village Watershed Committee was the actual project executor and the villagers were the implementors of the WSD program. The VWC was empowered with the mandate and responsibility for planning, executing, supervising, and maintaining the project. The locally elected body, the panchayat, also played a supportive role in this process.

- Government departments provided project financing and technical guidance.
- Agricultural universities provided training.
- Banks provided credit by means of loans for agriculture and animal husbandry and for nonfarm activities.

The Impact of the WSD Program

The WSD program had two types of impacts in Pimpalgaon Wagha, economic and social. The economic impacts include the following:

- Drinking water is now available even in drought years.
- Scrub cattle have been almost entirely replaced by cross-bred cattle, of which the villagers now own 200, up from 20 before the program. Milk production has increased from 150 liters per day to 1,400 liters per day.
- Agricultural production of grain, and consequently income, has more than doubled.
- Landless agricultural laborers now work for nine months a year instead of three months.
- The landless villagers now have artisanal and other employment opportunities.

The social impacts of the WSD program are as follows:

- The backward classes now take part in all cultural activities and are active members of the VWC.
- Most villagers have become confident enough to approach banks and government departments directly for loans and other assistance.
- The villagers have registered the VWC as a public trust to undertake the maintenance of physical structures and other welfare activities. It has already built up a development fund.
- The women of Pimpalgaon Wagha have started organizing themselves into specific purpose-oriented groups.

From One Program to Many

Today, the Social Centre is successfully working in about sixteen villages or watersheds encompassing some 14,000 hectares and about 11,000 people, and is also helping other NGOs elsewhere in the state of Maharashtra to undertake participatory WSD programs. Moreover, the knowledge and insights gained in the twenty-five years since its inception, and especially in the last five years, have been incorporated into a statewide watershed development program through NGOs and village watershed committees—now called the Indo-German Watershed Development Program—that is supplemented by official German financial and technical assistance. The program is actively supported by the government of Maharashtra, the banking sector (through the National Bank for Agriculture and Rural Development), and various agricultural extension agencies.

Another positive aspect of the program is that previously organizing and motivating a village to participate in a WSD program took twelve to eighteen months, whereas now it

takes three to six months. In addition, representatives from interested villages now come to the Social Centre to inquire about the program instead of the Social Centre approaching them.

The program has also influenced the state's economic policies. In 1989, the Indo-German WSD program was launched with the aim of coordinating the activities of the state government, NGOs, banks, agricultural universities, and village self-help groups. This was achieved at the policy level in 1992, when the government of Maharashtra passed an executive order extending political, administrative, and technical support to NGOs and village self-help groups involved in the WSD program.

In addition, as concerns common property resources and government-owned forest lands, the government of Maharashtra has now permitted joint development and management of degraded forest land with usufructory rights devolving to villages. Previously, villagers had not been allowed to use this land.

Finally, the government of Maharashtra has incorporated several new features—such as involving NGOs, increasing participation by villagers, and establishing VWCs—into its own WSD program, which is implemented through its line departments.

The Social Centre's Strategy and Approach

The following points highlight the institutional and operational factors that enabled the Social Centre to implement its WSD program as rapidly as it did in Pimpalgaon Wagha.

- The environment, especially water, proved to be a common denominator that allowed social mobilization and led to the integration of all groups of village society in Pimpalgaon Wagha.
- The people of Pimpalgaon Wagha realized that they could only meet their need
 for food security and local livelihood opportunities by changing their degraded
 environment. They became aware that rehabilitating their environment would be
 possible if people came together in a spirit of accommodation and compromise.
 Thus, the environmental agenda provided both the incentive and the framework
 for unity and participation in the village.
- The Social Centre responded to a need that was first articulated by the people of Pimpalgaon Wagha. It educated the people and motivated them to suggest measures and activities that the WSD program could undertake.
- The Social Centre encouraged and assisted in the formation of a representative
 and effective village-level body, the VWC, which represented all social groups
 and geographical areas of the village. The villagers gave this body the authority
 to plan, execute, supervise, and maintain the project because the Social Centre
 planned to disengage itself from the project once it was underway.
- The Social Centre helped the villagers to devise compensatory arrangements, conflict resolution mechanisms, and public accountability at the village level. It also provided reasonable wages for work done for the program.
- It involved the government and other actors from the beginning of project implementation with a view to their developing a stake in the program. It followed a strategy that allowed each partner (government departments, the VWC, agricultural universities) complete autonomy in their sphere of competence, while assuring joint responsibility for successful project management.

- The Social Centre followed a management strategy that sought to balance and bring together the divergent interests of the various groups in Pimpalgaon Wagha. The essence of the strategy lay in bringing about a situation wherein the legitimate and over-riding self-interests of the dominant groups in the village could only be met if the legitimate interests of the weaker groups were also being met.
- The project area of Pimpalgaon Wagha was given sufficient publicity by the Social Centre through visits from high-ranking government officials and dignitaries so that it became a priority village for the government and other official development agencies.

Lessons Learnt

The most important lessons that can be drawn from the WSD program in Pimpalgaon Wagha are:

- An effective assault on poverty can only be mounted if individuals and groups decide to help themselves. External intervention by an NGO serves merely as a catalyst and provides support.
- Villagers will cooperate and be willing to "pay the price" only when they are
 convinced that the program will be able to address their basic needs of food,
 livelihood security, drinking water, fodder, and firewood, both in the short and
 the long run.
- People's creative potential is awakened when they become aware of their own capabilities and when they are involved in project design, implementation, and maintenance.
- Because implementing a WSD program necessarily involves social discipline and hardship in the short run, all village groups must be involved in the program so that they feel that their interests will be taken into account. Moreover, the villagers must devise and agree on compensatory and conflict resolving arrangements that are transparent and open to public scrutiny. They can do this by establishing a representative VWC, which is the actual project executor.
- An exogenous inflow of funds, especially by wages, is necessary if the cooperation of those whose livelihood depends on common resources and the environment is to be improved.
- The NGO should have flexibility and bargaining power as concerns the village population and other actors by way of assured access to financing and other resources, and by establishing relationships with other potential program villages.
- The selection of project sites by the NGO should be guided by the existence of favorable social and political conditions at the local level, the possibility of relatively quick and significant impacts, and the adoption of the program by surrounding villages.
- A commitment on the part of the government and other key institutional actors toward improving the living conditions of the rural poor is a prerequisite for the successful replication of participatory natural resources management programs.

Summary 5

 The main actors (governments, banks, agricultural universities, local village bodies, and other institutions) and beneficiaries must be involved in the effort so that risks are shared, resources are better utilized, and ownership is developed. This is especially important in WSD programs and other natural resources management programs in which land and water are important factors, and which require substantial infusions of credit and technology on a long-term basis.

Conclusion

Participatory WSD as experienced in Pimpalgaon Wagha is an approach that allows the people's creative potential and wisdom to assert itself as a result of timely and appropriate exogenous inputs. It led to a "development dynamic" that created possibilities for change in the village. This dynamic is based on the economic development of all the villagers, especially the weaker segments of society, and the generation of income security through program-related employment.

The most important achievement is the identification of various actors with the program's objectives and activities. Today, the WSD program in Pimpalgaon Wagha is no longer just a project of the Social Centre alone, but also that of the government of Maharashtra. Above all, however, it is a project of the people of Pimpalgaon Wagha, the program's ultimate executors and beneficiaries.

An Overview of the Biomass Resource Base in India

Although India as a whole has achieved self-sufficiency in food production, more than 350 million of its population are lucky if they get one square meal a day. Hunger in the midst of plenty indeed! Most of India's population cannot afford to buy enough of this bountiful food production, either because they cannot find year-round employment or, if they are employed year round, the income they earn is at the subsistence level. Thus, the problem is not just one of chronic unemployment, but also of unstable and inadequate income flows.

About 70 percent of India's population lives in the rural hinterland, and it is here that the problem of inadequate and unremunerative employment is most severe. Most rural people draw their sustenance mainly from productive biomass (agriculture, forests, horticulture, pastures, and so on) and biomass-related activities (such as pasturing, agroprocessing, artisanship, or craftsmanship). Furthermore, about half of India's industrial production originates from biomass-based industries. The production and use of productive biomass is thus the resource base from which most Indians meet their daily needs of food, fuel, fodder, and building materials. However, a cursory survey of the biomass resource base in India presents a rather grim scenario, namely:

- At present, approximately 40 percent of India's land mass is estimated to be wasteland, and the process of deterioration shows signs of accelerating.
- India's forest cover was down to 17 percent in 1972. Ecologists estimate that ideally, a green cover of 33 percent is required to maintain the ecometeorological balance.
- Pastureland produces only a fraction—estimated at less than one-fifth—of its biological potential.
- Irrigation has been the main contributor to India's self-sufficiency in food grains.
 However, problems of salinity, waterlogging, and excessive withdrawal of groundwater are increasingly plaguing arable land under irrigation.
- More than 80 percent of the arable land is dependent upon rainfall for agricultural production, but most of this land lies in the scanty to medium rainfall belt that receives about 200 to 1,200 millimeters of rainfall a year. The rains are both seasonal and erratic.

Frequent failures of monsoons, recurrent droughts, increased population, and discriminatory market mechanisms complicate this situation still further. In addition, inten-

sive and unscientific farming practices and overgrazing have led to soil erosion, loss of tree cover, and depletion of groundwater. Thus, most Indians' very basis of survival is under siege and is quickly being pushed to the point where it may no longer be able to support communities.

The industrial sector cannot by itself deal adequately with the twin problems of chronic unemployment and poverty. Forty years of massive outlays in industry and infrastructure have not had a significant impact on the extent and incidence of poverty in the country. Moreover, creating a single job in the industrial sector requires a higher capital investment than creating one in the biomass sector. Thus, choosing policies that place less emphasis on solving the problem by rapid expansion of the industrial sector and more on providing as many people as possible with adequate and sustainable livelihood opportunities is imperative. This requires careful examination of existing policies and strategies related to the biomass sector, which currently is sustaining, however inadequately, the bulk of India's population. What is called for is a coherent strategy that will create adequate livelihood opportunities for all Indians. Such a strategy must increase biomass production and distribute it on a sustainable and equitable basis. Participatory watershed development (WSD) is one such strategy.

This study describes in detail the strategies, initiatives, activities, and results of a participatory WSD program undertaken in the village of Pimpalgaon Wagha in the Ahmednagar district of India. It does so from the perspective of the nongovernmental organization that launched the program and the point of view of the people of Pimpalgaon Wagha, who were ultimately responsible for the program's actual execution. The undertaking in Pimpalgaon Wagha is an interesting effort because, in this particular instance, various actors—the people, a voluntary agency (the Social Centre), the government (such as the Agriculture Department, the Forest Department, and others), technical institutions (such as the Agricultural University and Action for Food Production), and financial institutions—came together, pooled their resources, and created a democratic force that lit the spark of sustainable economic development.

This study attempts to address the following issues related to the process of participation in and implementation of the WSD program in Pimpalgaon Wagha:

- What factors were responsible for the success of the WSD program in Pimpalgaon Wagha?
- How did so many different and varied individuals and institutions at the grassroots level interact to form a harmonious and cooperative blend?
- How did the local indigenous institutions and interests interact with external institutions?
- What physical work was entailed in the WSD program and what was its impact on the environment, the ecology, and the village community in Pimpalgaon Wagha?
- What important lessons have emerged from the implementation of the WSD program in Pimpalgaon Wagha?

Methodology of the Study

This study was undertaken to improve the dissemination of information about self-help and participatory approaches in natural resources management and to stimulate their application. The study's main objectives are as follows:

- To discover the factors (events, circumstances, conditions, perceptions, and so on) that enabled Pimpalgaon Wagha to become a positive example in the area of natural resources management along participatory self-help lines
- To highlight the roles and contributions of the different actors so as to understand the complex variety of institutions (local, traditional, private, and governmental) required for sustainable development, as well as the nature of their interactions
- To outline the broad contours of the approach and to highlight the underlying strategy the Social Centre and other collaborating institutions used to engender, focus, and channel the creative capacity and energy of the people of Pimpalgaon Wagha
- To draw upon the experiences of the Social Centre, the government functionaries, and the village institutions involved to learn crucial lessons about the design of development programs oriented toward poverty alleviation, both at the microeconomic and macroeconomic levels.

Approach

The conceptual focus of this study is on people rather than on technical aspects of the program. More insight is needed about the conditions that make people take an active part in watershed development programs. This is ultimately the prerequisite for such a program to be effective. Because of the complexity of implementing participatory WSD, we chose to adopt a multidisciplinary methodology for this study that combines the provision of technical and economic data with social and historical analysis.

The people of Pimpalgaon Wagha are the subjects of this study and they affected the program on different levels. First, they live and earn their living in the watershed area. Second, when they were convinced about the benefits of WSD, they became self-helpers, planning and implementing the program and initiating improvements in their living conditions and environment. Thus, they were the promoters of change in their village and, as such, are innovators within their institutional environment. A reliable strategy for rural development acquires a definite shape only when people identify themselves with it, appropriate it, and actively implement it.

The intent of this study is to give a voice to the people of Pimpalgaon Wagha. The methodology used, therefore, tries to include the subjective logic of the villagers and other actors involved in the WSD program. It tries to set down their understanding of the development process as well as their perceptions of the factors that motivated them, individually and as a group, to participate in the WSD program. The study relies heavily on the lifestory approach, which is explained later.

Partners

This study is the result of a joint venture between three main groups of actors who were involved in the WSD program. These were first, the villagers of Pimpalgaon Wagha, who provided valuable insights on the development process as it affected them and their economic and social circumstances (life stories), explained their motives for participating in the WSD program, narrated the story of their village and the implementation of the program, and counterchecked the results of the economic analysis and impact assessment to verify whether they adequately reflected the actual results of the WSD program.

The second group was the staff of the Social Centre who contributed their experience accumulated from many years of rural development work and from other participatory WSD programs, shared their insights into the village's social and political dynamics, and were instrumental in stimulating awareness, motivation, and community mobilization in Pimpalgaon Wagha.

The third group was government officials who provided information about their experiences in Pimpalgaon Wagha and offered critical observations important for policy decisions concerning poverty alleviation through participatory WSD programs.

Methodology

When we set out to explore the factors that make participatory WSD possible and sustainable, we had intended to include several WSD projects. However, we found that all these projects had several features and elements in common. We then decided to conduct an in-depth study of one representative village. Thus, we chose an approach that stands for exemplary learning, that is, comprehending a complex reality by understanding all the facets of one representative example. Pimpalgaon Wagha met these criteria, and we therefore selected it for the study. The experience of participatory WSD in Pimpalgaon Wagha was important for deriving crucial lessons because it involved the cooperation of many actors (the people, the voluntary agency, the government, and other institutions).

The methodology applied involved four distinct activities:

- A quantitative analysis of the economic results, which was based on a socioeconomic baseline survey of all village households undertaken before the program was implemented, which represented the pre-WSD situation (March 1989), and a socioeconomic sample survey of twenty-two households (20 percent of all village families in Pimpalgaon Wagha) drawn from all socioeconomic groups in the village (December 1991).
- A qualitative assessment of the economic, social, and political results and benefits achieved by the program in the last few years, based on the life stories of farmers,

women, and the landless (representing all socioeconomic groups in the village) and a life story of the village as recounted by the village elders.

- 3. An assessment of the factors that stimulated involvement by the people of Pimpalgaon Wagha. This consisted mainly of the twenty-two life stories that reflect the individual perceptions of the people and the role they played in the WSD program.
- 4. An assessment of the pedagogy adopted by the Social Centre and the various government departments, which included interviews with government officials and discussions with Social Centre staff.

Life Stories

This study relied heavily on the life story approach. Life stories are people's narratives of their lives as told in their own words. Life stories reveal the decisive events in people's lives and also show how they perceive the world they live in. Life stories as used in the context of development work aim to:

- Highlight individuals' strategies for survival and development
- Reveal people's motives for taking risks to participate in a new development activity
- Indicate people's perceptions of the role they can play in their own development as well as in the development of their community
- Explain people's subjective view as to the options available to them within their particular economic and social contexts
- Provide information about the importance people assign to the results achieved by a particular program or development strategy.

Researchers usually record life stories in a way that retains the expressions and language the narrators used. The life stories of the people of Pimpalgaon Wagha reveal how poor people act and take decisions, how changes are brought about, and how participatory WSD development takes place.

^{1.} The life story approach, originally developed by the Grameen Bank for internal training, has been used in Exposure and Dialogue programs (organized by the German Commission of Justice and Peace) as learning tools for decisionmakers in German development assistance programs. It is a pedagogy by which decision makers, especially those in developed countries, are exposed to poverty through actual encounters with the poor in developing countries, so that they can better comprehend the real world of the poor as they experience it. This study adopts the approach as a tool for quantitative economic analysis. For more information, see G. Kochendörfer-Lucius and K. Osner, Development Has Got a Face: Interpretations of Life Stories on People's Economy (Grameen Bank Publication Series, Dhaka, Bangladesh, 1990, German Commission of Justice and Peace and Grameen Bank).

Pimpalgaon Wagha: Background

Before we embark on a discussion of the process of promotion and participation in the watershed development program in Pimpalgaon Wagha, let us briefly examine the features of the village's natural subsystem and the socioeconomic situation of its inhabitants. We will also present the village's life story as recounted by the village elders.

The Village's Natural Subsystem

Pimpalgaon Wagha is nestled at the foot of a range of barren and desiccated hills in a drought-prone area of Maharashtra state (Ahmednagar district) and in the rain shadow zone of the Western Ghats. It has three marked climatological seasons: summer (March-June), monsoon (June-September), and winter (October-February). The coldest month is December, with a daily mean minimum of twelve degrees centigrade and a daily mean maximum of twenty-eight degrees centigrade, and May is the hottest month of the year with a daily mean minimum of twenty-three degrees centigrade and a daily mean maximum of thirty-nine degrees centigrade. The relative humidity data indicates that the climate is fairly dry throughout the year.

Average annual precipitation is about 511 millimeters from the southwestern and northeastern monsoons, which generally break in early June and can last to November, with the maximum rainfall in September. Often the rains fall within a few days, often as heavy rainstorms, with high runoffs causing soil erosion. For example, in 1991 the village received 409 millimeters of rainfall (80 percent of the year's rainfall), but 245 millimeters fell on four consecutive days in June. During August and September, the most important months for crop cultivation, the village received only 56 millimeters of rainfall. During the entire rainy season of 1991, rain fell only on fifteen days, thus the government of Maharashtra declared that 1991 was a drought year and the district of Ahmednagar was designated a scarcity zone.

Given the village's topography and the nature of the soils, such a rainfall pattern did not sufficiently recharge the groundwater prior to the implementation of the WSD program. No wells were present on the plateaus of the surrounding hills. All the wells were located within the valley area and had an average depth of about ten meters and diameter of six meters. The static water level ranged from five to seventeen meters below ground level. However, in years of normal rainfall, groundwater conditions were moderately good.

Heavy soil erosion is a typical feature of the landscape of Pimpalgaon Wagha. The bulk of the village area of 840 hectares consists of highly eroded stony soil or stone wastes. Although unfit for agricultural purposes, it has nevertheless been cultivated because of the lack of alternative sources of livelihood. This overexploitation of the already fragile soil has accelerated the high rate of erosion (sheet and silt erosion) and led to further depletions in soil fertility. Only about one-quarter of the land in Pimpalgaon Wagha consists of deep vertisols soils that are suitable for intensive agricultural use.

The Socioeconomic Subsystem

Pimpalgaon Wagha has 879 inhabitants in 136 family units. Half of the population is educated, that is, they have some schooling, and women make up one-third of the villagers. Of all the families, thirty-six (27 percent) belong to the backward classes. Of these, eleven are landless families. Before the initiation of the WSD program, 68 percent of all families drew their subsistence primarily from farming, and another 9 percent of the families drew their livelihood from nonfarm activities, with farming as a secondary source of income. The landless families relied either on wage labor (agriculture or stonebreaking) or artisanal activities (working as barbers, cobblers, carpenters, and so on).

Pimpalgaon Wagha has a total geographical area of 840 hectares, of which 724 hectares are privately owned and cultivated land. A total of 60 hectares of forest land belongs to the Forest Department. Private waste lands are 41 hectares and land for other uses is 15 hectares. All of the backward class families are landowners and farmers. However, in an ecologically fragile drought region, the size of the landholding cannot serve as a reliable indicator of economic well-being, because water availability is the limiting factor for farming activities. Table 3-1 shows the landholding pattern in Pimpalgaon Wagha.

Table 3-1. Landholding Pattern in Pimpalgaon Wagha

Size of landholding	Farm	Farm owners		Total land owned	
(hectares)	Number	Percentage	Hectares	Percentage of total land	
Less than 1.00	40	18.1	12	1.7	
1.01 to 2.00	64	29.1	91	12.6	
2.01 to 5.00	62	28.2	200	27.6	
5.01 to 10.0	47	21.4	333	46.0	
More than 10	7	3.2	88	12.1	
Total	220	100.0	724	100.0	

Source: Authors' research.

The main crops grown during the summer and monsoon seasons are millet, pigeon peas, lentils, chick peas, and kidney beans. Winter crops are sorghum, sunflowers, and safflower. Where irrigation is available, the villagers also cultivate vegetables, onions, and groundnuts.

Before the WSD program (March 1989), the overall economic situation in the village was a depressed one characterized for most villagers by a grim struggle for survival. As the life stories reveal, hunger and insecurity were common experiences. Many farmers would join the labor force, especially during a drought year, but agricultural wages were barely at a subsistence level and their incomes were not continuous throughout the year.

Thus, the only way to survive was either to migrate to towns or to other villages where work was available, to incur debts at usurious rates (the repayment of which could take a lifetime), or to serve the moneylender or landlord as a bonded laborer for several years (if not a lifetime). Women were particularly affected because the scarcity situation had a strong negative impact on their areas of responsibility within the household and also on their income carning potential. Because work opportunities in agriculture were scarce, they often did not get work because it went first to the men. Furthermore, they had to trudge long distances in search of fuelwood and water, a task that also involved young girls, who were thus prevented from going to school and obtaining an education.

The Village's Life Story as Recounted by the Village Elders

How did this destruction of our nature happen? We do not know exactly, but there were poor people without land or other means of livelihood. Before, they had got grains from the village (for services rendered), but this was stopped. They now lived by selling cowdung and firewood. Some looked after the goats of others. At that time, the forests were common land. This was why they could go there and cut trees. When the government took this land under its control, there were no more trees to cut.

The original name of this place was Nimgaon Wagha. About 300 years ago the Wables and Naths migrated here from Nimgaon, which is about five kilometers away. There were three large pipal [fig] trees here and a thick forest inhabited by tigers. Legend has it that on arrival, people spotted a large tiger in a cave. They lit a big fire outside the cave, fed it with pungent chilies, and fanned the acrid, searing fumes into the cave. It wasn't long before the half-choked, bleary-eyed beast bolted for good. Thus, Pimpalgaon Wagha (the land of the pipal tree and the tiger) was born.

The Nath family had only girls and their sons-in-law were the Yenbares, the Ambekars, and the Urmades, while those of the Wable family were the Kardiles and Bhors. These families brought artisans from other villages: the Matangs (a caste that kept the village clean) from Jakhangaon (five kilometers away), the cobblers from Hivre (three kilometers away), and the barber from Ranjangaon (twenty kilometers away).

In those days, rain and water was sufficient. The village had not more than ten to fifteen wells and the irrigated area did not exceed twenty-five hectares, and consisted of three to four families only—the karbharis (village elders) and Zamindars. They had good quality land and the others worked on their land. These families were strong and rich joint families. They helped each other and protected each other. If we were in need and the moneylender gave us a bag of grain, we had to return two. There was strict untouchability and unyielding caste mentality. Backward and scheduled class people had their houses outside the village. This lasted until 1972. If, by chance, a backward-caste person touched a plate of food of a higher-caste person, the plate would have to be purified in fire! But today all this has disappeared, though intercaste marriages still do not take place.

Decisions concerning the village were made by the elders and they had the final word. Only in 1958 was the panchayat system (democratically elected village body) established. There were no health facilities in the village. Often there were epidemics like malaria and the plague. Many would die. There was one school established by rich families to educate their children. Other children availed of this, although they were very few.

There are two temples in our village: the Hanuman Temple (150 years old) and the Vithal Temple. There is a legend associated with the Vithal Temple. About seventy years ago, a sadhu (a holy man) was crossing the River Sinar (about fifteen kilometers from

16 "The Rain Decided to Help Us"

Pimpalgaon Wagha) when he chanced upon two idols of God Vithal and Goddess Rukhmani lying on the river bed. That night he had a dream in which the deities appeared to him and directed him to go to Pimpalgaon Wagha, establish the idols, and build a small temple for them. During the drought of 1972, the people of Pimpalgaon Wagha demolished this temple and built a large modern temple in its place financed by the surplus of the grain bank.

The Process of Promotion and Participation

The watershed development program launched in Pimpalgaon Wagha sought to address the village's most important problems, such as the extensively degraded lands and improper land use, the excessive dependence on the monsoons for agricultural purposes, the absence of tree cover and the meager availability of biomass, the lack of drinking water in the summer, the absence of adequate irrigation for crops, the forced migrations to the urban areas for employment after the monsoons, the people's poor nutrition, and the fragile ecosystem incapable of surviving the frequent stresses of droughts.

The program had the following objectives:

- To increase and stabilize agricultural income
- To increase the availability of biomass for domestic and artisanal purposes (food, fuel, fodder, fiber, fertilizer, and manure)
- To ensure year round availability of water for domestic purposes and protective irrigation
- To attempt to create sustainable livelihood opportunities in the village, especially for women and the landless.

To understand the process of implementing the WSD program in Pimpalgaon Wagha, we sought answers to the following questions: How and why did the Social Centre choose Pimpalgaon Wagha for the WSD program? What approach and strategies did it employ? When and why did the people of Pimpalgaon Wagha decide to respond? What were the critical events that led to such a fruitful collaboration? How did the government get involved as a partner? How did the various actors—the people of Pimpalgaon Wagha, the government officials involved, and the Social Centre—view the entire process of promotion, participation, and development? What lessons can we learn from these experiences?

We sought answers to these questions by interviewing the principal actors in this program, namely, the area manager of the Social Centre responsible for the WSD program, the official in charge of the government's contribution to the program, and several other villagers and people connected with the program. The following pages contain narratives by the area manager of the Social Centre and a government official as well as an excerpt from the life story of an educated farmer who is also a leading member of the Village Watershed Committee (VWC).¹

Although promotion and participation are ongoing processes that extend beyond project completion, for purposes of this study, we limit our narratives to the point where people decided to implement the WSD program and establish a VWC.

The Social Centre: The Area Manager's Story

The following narrative provides insight into the process of mobilizing the village's selfhelp potential and is narrated by a facilitator of the Social Centre, the area manager.

Choice of Village

Toward the end of 1986, the Social Centre decided to work on a community basis only. No more individual schemes would be undertaken. It was decided that villages would be chosen on the lasis of the following criteria: the village should be one where land revenue is less then 50 paisa (that is, it is a low-revenue village); it should be a COWDEP village (a village taken up by the government under a community WSD program called COWDEP [comprehensive watershed development program]); it should have a population of less than 1,000 persons; and it should be a hilly, backward area.

I visited three villages, one of which was Pimpalgaon Wagha. I met the sarpanch (elected village leader) and the gramsevak (village-level government functionary), introduced myself and the Social Centre, and inquired about their village situation. In the beginning I received no response, but after a time, I noticed a flicker of interest in Pimpalgaon Wagha.

Entry: Trust Building

Some farmers had had loan dealings with the Land Development Bank (LDB), which gives long-term loans to farmers. They had heard about the Social Centre, since it had an office in the LDB and a close working relationship with the bank. These farmers inquired about the Social Centre from the LDB officers, who gave ... good recommendation.

Five days later, I went to the village and I was warmly received. I met the gramsevak and requested him to call a village meeting to introduce myself. The meeting was well attended. The gramsevak waxed eloquent about how fortunate Pimpalgaon Wagha was to be visited by the Social Centre. He exhorted the people to cooperate with the Social Centre. I spoke for about five minutes, explaining what the Social Centre is all about. A few days later, I took along an LDB officer with me to Pimpalgaon Wagha and he reaffirmed the credentials of the Social Centre.

One day, three important people from the village came to me and led me on a tour of the village. It was a drought year and they pointed out to me the hopelessness of their situation where there was no water for irrigation and hardly any water for drinking purposes. Since they did not have any access to developmental schemes ("nobody comes here, nobody informs us of the government schemes"), they felt they had no choice but to leave the village. After this encounter, a Gram Sabha meeting [meeting of all villagers with voting rights] was held in the village. It was well attended. The people wanted to know more about the schemes that the Social Centre was involved in. When asked how we could assist them, the people told us: "We don't have an irrigation canal, a lift irrigation scheme is not possible, and a dam cannot be built here. What work has the Social Centre done before?" I told them that we have dug wells; built check weirs, percolation tanks, and lift irrigation schemes; and we have also developed land and water resources. To which their response was: "But there is no water in Pimpalgaon Wagha!"

Someone in the village brought up the following point: "In a nearby village there is a dairy cooperative and every morning a van comes to collect the milk. The farmers there are very happy. If we too could start a dairy here, not only would the present milk producers benefit but also the prospective ones would! Could the Social Centre help us?" Thus, a need was expressed. After undertaking some research on the issue of the dairy cooperative, I informed them that they themselves would have to do the paperwork and fulfill procedural formalities, but the Social Centre would ensure their access to relevant institutions. Moreover, they would have to select reliable bank loan beneficiaries. They agreed and set up an informal committee. Thus, a joint Pimpalgaon Wagha-Social Centre project was launched. The meeting lasted through the night. The work was divided out between members of the committee and the Social Centre. A short time later, the Dairy Cooperative was registered and all land owners in Pimpalgaon Wagha, whether or not they owned cows, were eligible for membership. It was inaugurated a few days later at a public function in the village. Once the dairy cooperative was established, I decided to leave the village because I felt that the people were now able to have access to government development schemes and other institutions on their own. This decision was not accepted by the people. "The work only begins now," they argued.

Awareness Building and Planning

At that time, the Social Centre decided to go in for comprehensive village development along watershed lines. As this was a new concept for me and the people, the Social Centre organized a familiarization trip to two villages, Adgaon and Ralegan Siddhi, where WSD work was already under way. After lengthy discussions with those villages, the farmers of Pimpalgaon Wagha also decided to go in for watershed development. We retained the services of AFPRO [Action for Food Production, a nongovernmental organization offering technical support] for project planning in the initial stages, and the people also agreed to contribute part of the expenses of the WSD project.

In order to facilitate the survey work (topographic), the villagers selected a few persons. I suggested that the head of this team be the village barber. I would maintain close contact with him and explain to him the concept of WSD and the purpose of the various surveys. He in turn, while shaving the heads of his customers, would drum into their heads the whys and hows of the WSD program. He proved to be one of the best promotional instruments of the program! An educated, honest, but poor village lad was also selected by the villagers and sent for training in soil and water conservation techniques. This established a close relationship with the village youth and ensured their participation in the program.

Organization and Implementation

There were two opposing groups in the village, which consisted of the younger, upcoming leaders on the one hand and the village elders on the other, who wielded considerable power in the village. And it wasn't long before personal rivalries and ego clashes came to the fore. The occasion was the setting up of a nursery. The upshot was that the power equation in the village tilted in favor of those who wanted change, and who incidentally also happened to be young.

Shortly thereafter a village Gram Sabha meeting was called to decide upon organizing the WSD effort. Discussions were animated, heated, and lengthy. Quite a few clashes took place. However, in the end a VWC was established consisting of representatives from each settlement of the village, with representation from women and the landless. Care was also taken to include members of the opposing group. The following conditions were also accepted by the villagers:

Ban on free grazing. A fine of Rs 25 per tree would be imposed on transgressors. The farmers, and especially the women, agreed to reduce the number of goats and scrub cattle because the Social Centre assured them of daily work with remunerative wages, which would compensate them for their loss. Further, keeping goats meant that children were losing out on their education and the villagers felt that they would rather send their children to school than to pasture.

- Ban on tree cutting within the village boundary.
- Free (voluntary) labor on the basis of two mandays per month from each family or two days' wages.

The work thus began. There were a few ups and downs and moments of anxiety, but the end result was that the people discovered that if each one felt responsible for the development of the village, things would change for the better.

Entry of the Government

In October 1989, the government of Maharashtra launched a scheme called Rural Development through Labor Power (Shramshakti Yojana). The government officer, who was the deputy collector [a collector is the administrative head of a district] responsible for the scheme, had heard about the work going on in Pimpalgaon Wagha and paid a visit to the Social Centre. He suggested that Pimpalgaon Wagha be included in the new scheme and offered full governmental support and cooperation. After several joint meetings with the villagers of Pimpalgaon Wagha, the village was included under the government's Shramshakti scheme and work began in January 1990.

The Government: The Deputy Collector's Story

When the Shramshakti Yojana program was declared, we were looking for a village in which to implement this program. It was not easy to find one because in addition to a ban on free grazing and tree felling, every family had to provide two mandays of free labor per month. Moreover, it is not easy for us to organize the people and to enlist their willing participation. For this an NGO [nongovernmental organization] is needed and we wanted to collaborate with only those NGOs who actually work in the village.

Choice of Village

I had contact with the Social Centre, as a friend had visited their villages occasionally. We discussed the program with the Social Centre and decided to select Pimpalgaon Wagha under the *Shramshakti Yojana* program.

Entry: Trust Building

On our first visit to Pimpalgaon Wagha, we went late at night. The director, the area manager of the Social Centre, and myself sat in the temple, the common gathering place, and discussed the program with the people until late at night. The people told us their problems and we encouraged them to speak openly. During a period of several months we went there at least six times, always for at least five hours in the evening. In the beginning, the farmers would not believe that the Social Centre and the government were working together, but slowly they understood that there was a link between us. About 80 percent of the farmers came to listen to us, including women, and I was very impressed to see this attendance. We explained the meaning of *Shramshakti*; the people explained their problems and their reluctance to work with the government. They needed time, but finally agreed to cooperate with us. This was because the Social Centre guaranteed that it would rectify any work that was not done well by the government and would also undertake necessary works not provided for under the government scheme.

Planning

We gave the farmers a free hand to enumerate their needs. We set only two priorities, namely, that works to be undertaken should first increase soil conservation, and second only develop water resources. Accordingly, we set up a list of works to be undertaken. The villagers were given the understanding that the program could not be implemented in a year but would take several years. V e also explained the sequencing of the plan and these discussions took most of our time. We kept the villagers' priorities unless they adversely affected water or soil conservation. When any farmer wanted to dig a private well, we had to make him understand that this would take water away from another farm, but that in one or two years, there would be enough water for his private well. He only slowly accepted this reasoning.

Within two months the plan was elaborated. When it was ready, I took all persons from the concerned departments to the meetings and they all promised to take on the village on a priority basis. All the technical surveys were undertaken by the government departments and by the Social Centre with their own technical staff together with the villagers. The sites for nullah bunds, gullies, plugs, and check dams were selected and well sites were chosen. The plan and estimates were made and the final plan document was elaborated by the government departments. It received the technical and administrative sanction. A plan and calendar for implementation of the works was therefore established and we started to im plement the WSD program.

Implementation

The people gave us a guarantee that they would provide us with fifty mandays of labor (besides two days of free labor per family per month) and that they would follow all other conditions of the scheme. However, we were aware that the labor conditions are the most difficult to get fulfilled in villages. But people started the work with free labor itself and everyone came. While implementing this program, we took care not to disturb the crops or land cultivation. We made sure that enough time was available to the far mers for their regular work on their fields.

The WSD Program: The Story of a Farmer and Watershed Committee Member

The Social Centre came to the village to work for people's development and not as a funding agency. There were very few people present when the Social Centre introduced itself, but the villagers who were present welcomed the Social Centre and requested the staff to attend their Gram Sabha meeting. The founder of Social Centre and the staff attended this meeting and explained the details of the organization and its working process. All the people agreed to work hand in hand with the Social Centre, which then adopted Pimpalgaon Wagha for the WSD program. The work started with regular meetings. Whenever difficulties arose they were solved by the Social Centre with the participa tion of the people.

Awareness Building

We heard about the WSD program from the Social Centre, about works such as contour bunds, nullah bunds, tree plantation, check dams, and so on. But the problem was how and where to start. It was decided in a meeting with the Social Centre to visit some successful projects, such as Adgaon village. In the first group, five persons, including myself, visited Adgaon and we were impressed to see its development. We then understood the importance of contour bunds, tree plantation, and water management.

Organization, Planning, and Implementation

We formed the VWC. There were twenty-two members in the committee. In the first meeting after the Adgaon visit, we decided to start contour bunding and a nursery. It was also decided that there would be 80 percent contribution from the Social Centre and 20 percent from the people in the form of *shramdan* [free labor]. As a member of the VWC, I have to shoulder some responsibilities. I have to supervise the work and make sure that it's going on well. It is a very difficult job and we cannot please everybody. If the laborers are not working properly, if the villagers hesitate to contribute their voluntary labor, if there are violations of the rules framed by the committee, I have to bring all these facts to the attention of the VWC for action. Defaulters have to pay. Naturally, some people are sometimes displeased with me, but I feel it is my duty as a member of the VWC. The villagers also gave their land and water for the nursery as they had promised in the *Gram Sabha*, and people participated in the program by digging the pits, and filling the polythene bags, while the other expenses were borne by the Social Centre.

Participation

In the beginning, some people were opposed to contour bunds in their fields and we arranged another trip to Adgaon. Nearly forty people saw the changing face of Adgaon and came forward enthusiastically to develop their own village better than Adgaon. I came forward to participate in the program because it helped to strengthen our unity through democracy. Free labor helped to strengthen our brotherhood and we came closer to each other.

Decentralization of power helped us to clean ourselves of dirty politics. And above all, we prepared the integrated village development plan through motivation and the guidance of the Social Centre. The Social Centre helped us to understand what the *Shramshakti Yojana* was all about. We understood that it was not only the government that implemented the program, but it was the villagers with the support of the Social Centre and the government. The Social Centre is very involved with the local people. The neighboring villages are very impressed with our progress and are demanding the same in their own villages. ²

^{2.} This story is excerpted from a life story presented in chapter 6.

The Process of Implementation

Once the village had decided to undertake watershed development (WSD) work and established the Village Watershed Committee (VWC), local institutions both native to the village and from outside it began playing a significant role in determining the nature and quality of participation in the program. This chapter identifies these institutions and elaborates on the needs they fulfilled and their relationships with other institutions. Two main types of institutions were operating in the village: those that were not directly connected to program implementation, but that nevertheless had a significant impact on it, and those that were directly related to the program. Before we discuss the role of these institutions, we will outline the developmental context of the government schemes that set the stage for the initiation of the WSD program in Pimpalgaon Wagha.

The Developmental Context of Government Schemes

The drought of 1972–73 in Maharashtra was extremely severe. Famine was widespread, leading to large-scale disruption of the rural economy. To stop the flood of people migrating to urban areas and to provide sustenance to the rural populace, in May 1972 the government of Maharashtra launched a massive effort known as the Employment Guarantee Scheme, based on the principle of "work to anyone who demands it." The objective of this scheme was primarily to provide gainful employment to the needy and to create productive assets that could generate further employment and benefits in the rural areas. The scheme was formalized by the Maharashtra Employment Guarantee Scheme Act of 1977, wherein the government of Maharashta accepted people's constitutional right to work (Article 41). Over time, the scheme sought to gradually transform itself from a "fire-fighting" operation to an integrated and comprehensive approach to rural development, particularly in the area of agricultural productivity.

To develop a visible, demonstrable, and long-term solution to the recurrent problem of drought, in 1982 the government of Maharashtra launched the Comprehensive Watershed Development Program (COWDEP) for those rural areas not irrigated by canal water. COWDEP defined a watershed area as a spatial unit of planning and a tillage as a unit of operation wherein the Employment Guarantee Scheme would finance all works pertaining to resources management, such as soil and water conservation, afforestation, pasture development, and social forestry. Although this approach had much promise, its potential was underutilized. To rectify this situation, the government of Maharashtra launched the Krishi Pandari Scheme, a variation of COWDEP, in May 1983 in selected villages. Because of various difficulties, however, this too did not yield the expected benefits.

Thus, government officials realized that unless they took the village's population into their confidence and involved the people in all levels of project planning, not much would result in terms of developing assets that could create adequate employment for present and future generations. Moreover, success stories in villages such as Ralegaon Siddhi, Sukhomarji, and Adgaon brought home the fact that much could be accomplished in this area. Thus, to arrest the growing deterioration in the rural environment and to create a base for sustainable livelihood and production systems, the government of Maharashtra launched a scheme called the *Shramshakti Yojana* (Rural Development through Labor Power) in June 1989. The cornerstone of this scheme was participation by the people and its objective was to implement the WSD program through the self-help group initiative.

The Social Centre had already begun working in Pimpalgaon Wagha in 1988 and by the beginning of 1989 had already initiated a campaign to make the villagers aware of WSD. The launching of the *Shramshakti Yojana* was a boon, as it was not only a source of financing, but it also provided an opportunity for the people and various government departments to work together under the auspices of a program and develop mutual trust and confidence. The hope was that the cooperative relationship with the government would ensure the long-run sustainability of the WSD program.

Under the Shramshakti Yojana, all line departments were required to implement developmental schemes within watershed areas on all lands, public and private, in a comprehensive and integrated manner. In Pimpalgaon Wagha the Agriculture Department undertook such sell and water conservation work as contour bunding, horticulture development, and pasture development; the Social Forestry Department undertook energy plantation and fodder development on public lands, roadsides, and private lands; and the Forest Department undertook afforestation of the hillsides belonging to it. In addition, the Training and Visit Wing of the Agriculture Department and resource people from the Agricultural University situated at Rahuri (about 34 kilometers from Ahmednagar) and from the District Animal Husbandry Department conducted training and awareness camps for farmers. The Social Centre was responsible for mobilizing and organizing the people, for networking with government agencies and other institutions, and for financing those activities that the government could not finance. Work under the Shramshakti Yojana began in earnest in Pimpalgaon Wagha in January 1990.

Local Institutional Actors

Over time, small, informal groups or associations had developed in Pimpalgaon Wagha, oriented toward fulfilling certain broad needs of the villagers. For example, to help the poor, a group of villagers had formed the Pandurang Grain Bank. Other spontaneously formed associations were the Youth Group and the Hanuman Temple Credit Union, both of which are organized and managed by the village's youth. With the start of the relationship with the Social Centre, a women's group, a dairy cooperative society, and a primary agricultural cooperative society were also organized. These various groups have developed a stake in the smooth implementation of the program and have become partners of the VWC. For instance, because of the increased income in the village, the lending volumes of all the credit groups have expanded considerably through higher membership and larger fees. These groups, which are not directly related to program implementation, are set out in table 5-1.

Table 5-1. Loca	Table 5-1. Local Institutional Actors Not Directly Related to Program Implementation		
Name	Objective	Background and mode of operation	
Pandurang Grain Bank	To meet the grain requirements of the poor and the needy and to maintain the main village temple from the surpluses generated	Thirty years ago on the Hindu new year (Padva) some young farmers got together, collected three sacks of grain, and started the bank. They distributed the grain to the needy at a 25% interest rate, returnable within a year. During the drought years, the bank collects only the interest and the principal is carried forward. In 1991–92, 40 bags were collected as interest and the outstanding principal in circulation was 169 sacks. Valued at current prices, this amounts to Rs 104,000. In case of a surplus, somebody comes forward and takes the surplus grain, even if he or she does not need it. That person returns the grain the following year with interest, even if that means entailing a loss, that being considered a donation to God.	
Youth Group	To celebrate marriages, opening ceremonies, cultural functions, and so on	The Youth Group was set up ten years ago. The village elders collect money at meetings or by youth activities. The Youth Group does whatever work is necessary (preparation, hiring of items, and so on) and expenses are met from the collection. Any surplus left after expenditures is given to the Youth Group, which distributes it as loans to needy youth at a 24% per year rate of interest. All loans are provided on the second day of the Hindu new year. The money is available for common purposes, if necessary, as determined by the <i>Gram Sabha</i> . The group currently has Rs 15,000 in circula tion.	
Hanuman Temple Credit Union	To provide consumption and production loans to the needy and to maintain the temple	About three years ago, some members of the Youth Group contributed about Rs 600 and distributed it among themselves as loans at an interest rate of 24% per year. Loan recovery and disbursement is done on the day after the Hindu new year. The <i>Gram Sabha</i> has authority over these funds. Rs 4,000 are currently in circulation.	

Table 5-1. cont	inued	
Women's Group	To bring the women of the village together to increase their potential and awareness and to support each other financially and otherwise by providing soft loans	The Women's Group was established about two years ago. Membership is open to one woman per household, irrespective of caste or creed. At present, sixty women belong to the group. Each member must contribute Rs 5 per month as a membership fee, which is distributed every month to needy members at 24% per year interest up to a ceiling of Rs 500 per person. Repayment has to be made in four monthly installments. Currently some Rs 10,000 are in circulation.
Hanuman Dairy Coop- erative Society	To increase farm income through related activities	The cooperative is a formally registered body and a member of the Ahmednagar District Milk Cooperative Society established in 1988. All farmers who own land are eligible for membership, which costs Rs 51. The cooperative currently has forty to sixty producer members. To date, sixty members have taken bank loans (totaling Rs 480,000) to buy 80 head of high-yielding milk cows.
Primary Agricultural Cooperative Society	To provide short-, medium, and long-term credit (both cash and in kind) for all agricultural purposes and to provide small loans for nonfarm and related activities to both farmers and the landless	Established at the end of 1991 with a membership of 240 (landowners, landless artisans), the primary cooperative is financed by the Ahmednagar District Central Cooperative Bank. To date, twenty farmers have received loans for buying milk cows.

Source: Authors' research.

In addition to these village-level groups, Pimpalgaon Wagha has the formal institutions of the local government, such as the Gram Sabha and the Gram Panchayat. For WSD, the villagers decided to establish an additional body, the VWC. They did so to minimize the risk of politics affecting the work, to allow flexibility in decisionmaking, and to enhance social accountability.

The VWC is an informal group of twenty-two people nominated by the Gram Sabha that includes representatives of the landless and women. The VWC enforces all the Gram Sabha's decisions concerning WSD and is the actual executor of the project. The VWC is now building up its own funds to maintain works and is actively considering making itself a formal, registered body.

Assisting the VWC with organization, motivation, technical support, and project finance is the Social Centre under its Integrated Village Department Program. The various government line departments and government-related institutions (banks, the Agricultural University, and so on) actively support both the VWC and the Social Centre by providing technical support, project financing, and administrative assistance under the Shramshakti Yojana and other schemes.

Table 5-2 presents the various actors directly related to the implementation of the WSD program. the legal and political framework they operate in, and their contribution to the program.

Organization	Sector	Framework	Services provided
Gram Sabha	Self-help group	Constituted under the Bombay Village Panchayat Act of 1958	Implements the general acceptance of development schemes and their implications (work contributions, social discipline, and so on) and reviews the developmental, administrative, and financial functioning of the <i>Gram Panchayat</i> .
Gram Panchayat	Self-help group executive wing for general administrative and developmental purposes	As above	Implements government policy and administrative decisions at the village level, implements various schemes for village development, and presents village needs and demands to the government for redress.
Village Watershed Committee	Self-help group executive wing for village WSD (may include members of the panchay:!t)	Nominated by the Gram Sabha	Plans, organizes, and implements WSD projects in the village; ensures local participation and social control in project implementation and maintenance; and ensures benefits through sharing arrangements, use of common property resources, and other activities (such as dairy loan facilities).

Table 5-2. Continued							
Social Centre	Voluntary nongovernmental organization	Integrated village WSD program	Organizes people into self- help groups, liaises be- tween government de- partments and village self-help groups and puts the latter directly in con- tact with the government, makes management ex- pertise and technical as- sistance and information available to the self-help groups, and provides complementary project financing whenever gov- ernment finance is not available.				
Government line depar t- ments	Government	Employment Guarantee Scheme (1977), COWDEP (1982), Shramshakti Yo- jana (1989), Social Forestry Pro- grame (1982), Horticulture De- velopment Scheme (1990)	The Employment Guarantee Scheme provides gainful employment to all who demand it, COWDEP creates productive assets such as roads and percolation tanks, the Shramshakti Yojana carries out development of natural resources in the village, the Social Forestry Program develops common lands by planting fuelwood plantations and developing pastures, and the Horticulture Development Scheme develops marginal and low grade arable lands into orchards.				
Government institutions and agencies: Training and Visit Wing (Agricultural University), District Rural Development Authority, banks	Government/public	Laboratory-to- Land Scheme (1989), Integrated Rural Develop- ment Program, various credit schemes	Provide agricultural ex- tension and training to farmers; test new tech- nologies and packages on farmers' fields; provide loans and subsidies for agriculture, related activi- ties, and nonfarm activi- ties for families below the poverty line; and provide loans for artisanal pur- poses, milk, cows, and so on.				

Relationships between the Actors

The process of participatory WSD in Pimpalgaon Wagha has been somewhat complex, involving several actors, not all of whom share the same perspective or approach. Table 5-3 summarizes the management and implementation process.

The challenge has been to bring together all these various actors and their often divergent agendas in a way that not only fulfills their basic interests, at also leads them to contribute their strengths and facilities toward the adoption and execution of a program that was designed to benefit all villagers.

Table 5-3. Who Did What			
Activities	Actors		
Motivation and awareness	The Social Centre and some progressive farmers from Pimpalgaon Wagha		
Scheme acceptance and agreement	Gram Sablia, the VWC (as the project executor)		
Project planning and formulation	VWC, Social Centre, government departments		
Implementation of project activities:	•		
Organization of labor	VWC, Social Centre		
Organization of material	VWC, Social Centre, government departments		
Work supervision and monitoring	VWC, Social Centre, government departments		
Training and skill acquisition:			
Agriculture	Agriculture Department, Agricultural University		
Forestry and pasture development	Forestry Department, Agricultural University		
Animal husbandry	Animal Husbandry Department		
Horticulture	Agriculture Department, Agricultural University		
Social welfare and individual beneficiary schemes:	•		
Nonfarm sector (Integrated Rural Devel-			
opment Program, and so on).	District Rural Development Agency, banks		
Related sectors (dairy, poultry)	Social Centre		
	District Rural Development Agency, banks, So-		
Well digging and houses for backward classes	cial Centre		
Classes	District Rural Development Agency, Ground- water Survey and Development Agency		
Project coordination	Social Centre		
Credit for production purposes	Commercial banks, Cooperative Bank, Grain Bank, Youth Group, Hanuman Temple Credit Union, Women's Group, Social Centre		
Credit for consumption purposes	Grain Bank, Youth Group, Hanuman Temple, Credit Union, Women's Group		

Life Stories: Giving the People a Voice

This chapter presents the interpretations and perceptions of some of the actors in the participatory watershed development program in Pimpalgaon Wagha. It presents the villagers' views of the promotion process and the development that has ensued for themselves, their families, and their village as a result of the program. We recorded the life stories of twenty-two selected villagers, each one from a different level of society and typifying different economic and social situations. This chapter sets out six of these life stories. As noted in chapter 2, the objective of life stories is to elucidate the narrators' interpretations of their social, political, and economic environment, that is, their understanding of the world they live in. Thus, an analysis of any development process should take into consideration the changes in people's perceptions, motivations, values, hopes, and even dreams about a better future.

The life stories of the people of Pimpalgaon Wagha focused on the following five main topics:

- How did the villagers perceive their environment and subjectively "feel" their poverty before the implementation of the WSD program?
- What made the villagers interested in and motivated to participate in the WSD program initiated by the Social Centre.
- As the program's success depended on the active participation of many actors, how did the villagers contribute in this respect? What factors induced them to undertake certain activities and responsibilities?
- What benefits, if any, resulted from the WSD program?
- What are the villagers' future plans, expectations, and aspirations for themselves, their children, and their village?

The following life stories were recorded in Marathi and translated into English. Some expressions may seem unusual but they reflect the way in which the villagers expressed their ideas. Despite the limitations of this approach, these life stories are significant as they portray the subjective logic of the people of Pimpalgaon Wagha and help to make their participation in the WSD program more comprehensible to others.¹

^{1.} The appendix presents an assessment of twenty-two life stories of the people of Pimpalgaon Wagha.

Life Story of a Landless Female Laborer

I am Parubai Nagu Vitekar. I am from Pimpalgaon Wagha. I don't remember my age, but I may be forty-five years old. My father is from Kamargaon village. He was a building contractor and was earning a good amount of money. I did not go to school. Neither did my father persuade me to go to school. I have ten sisters and three brothers. All my sisters are married and stay with their husbands. I got married at the age of fourteen. My husband is a stonecutter. There was no dowry system, but my father had to pay all the marriage expenses. My brothers were educated up to the Tenth Standard. My three older sisters were educated up to the Fifth, Seventh, and Ninth Standard, respectively. The rest of us did not go to school at all. After marriage my dreams collapsed. My family condition was very poor and I had to work as a laborer. I have three children, one daughter and two sons.

One incident took place in the year of drought in 1972, and my life took a downturn. I was working on the construction of a percolation tank. Suddenly, I fell down from the wall of the tank. My leg was fractured. I was taken to a local quack who was famous for treating fracture cases, but his treatment did not give me relief. I was bedridden for six months and quarrels took place as my mother-in-law fought with me several times. It only increased my sickness. She felt the burden of me and my children. I talked with my husband, but did not get a helpful response. I begged my husband not to marry a second woman as long as I was alive, and especially since we had three children. I told him that I could work again as soon as I recovered and would raise our children, but he did not agree. At the suggestion of my mother-in-law, he took me back to my parent's home with my three children. At that time, my daughter was five years old, my son was two years old, and I had a seven-month-old infant. This situation increased my mental tension and led 's frustration.

My father kept me in Sassoon Hospital, Pune, for treatment. I remained there for six months. My relatives provided support and my family showed their love toward me and my children. The second marriage of my husband took place and he broke our relationship forever. My father was aware of the situation, but was helpless to change it. I stayed with my parents for another four years. I was unable to walk. Meanwhile, the marriage of my two sisters was arranged by my father. At the same time he took the initiative for my daughter's marriage, who was hardly ten years old at that time. I gave my consent and her wedding took place along with my two sisters' weddings.

One of my burdens was taken care of, though I was not happy about the arrangement. I was worried about my two sons. My older son was already in the school at Kamargaon studying in the Fifth Standard. Although I was dissat. ied, I prevailed upon my father to take me to my husband. He hesitated, but accepted my request. He kept my elder son with him for his education and brought me to Pimpalgaon Wagha to my mother-in-law. My husband was with his father-in-law (father of second wife). My mother-in-law did not allow me to remain there. I shifted to the Chavadi [common meeting place with an open hall]. I lived there for several years.

One of the landlords kept my son with him as a bonded laborer. I earned money by stitching mattresses, cleaning utensils, and washing cathes for different families. I used to get Rs 1.50 for stitching mattresses. This was not sufficient for my maintenance. Therefore, I had to also work as a laborer. From what I earned, I saved some amount for the future. My brother who is in the army sometimes helped me. I had purchased five iron sheets and a door for shelter, but there was no place to construct the house. My community was against me. But one of the women came forward and gave me her own plot to build a house. Meanwhile my son, studying at Kamargaon with my parents came back to Pimpalgaon Wagha and joined me. Now thirteen years have passed, I am still staying here in the kacha house. My older son studied up to the Eighth Standard, left school, and is now employed, but he never helps me. My younger son is illiterate.

In the same period some activities were started in the village by the Social Centre. One of the activities was women's development. I became a member of the Mahila Mandal [women's organization]. We members have started a bhishi [chit fund collection] scheme and are contributing Rs 5 per month per head. I am working hard in the drought work taken up by the Social Centre. I found sincerity and cooperation among the people who are working for the Centre. My younger son was working as a laborer on the nullah bunding, contour bunding, and afforestation work started by the Social Centre. They were sympathetic and sent him to the driving school for training. Now he is employed and earning money and he supports me. I am looking for a wife for him. I will not act as my mother-in-law, as I have gone through many bitter experiences and have lost my health, and energy.

My sorrowful days have passed and the future is bright because of the support of the Social Centre. I hope that the big problems such as unemployment and shelters for the homeless will be tackled by the centre in the near future. The biggest worship in the world is love and sympathy with each other and this is what is reflected by the Social Centre. I dream that I should have a house to live in, that my sons should be married, and I should get good-natured daughters-in-law who can understand me. I would like to see the face of my grandson. And I am sure my dreams will come true because the Social Centre and the villagers support me.

Life Story of a Small Farmer with Some Irrigated Land

I am Daulatrao Nanabhau Wabale, aged fifty-five years, resident of Pimpalgaon Wagha. My father was looking after our land for forty-eight years. The land was under the control of the savkar [moneylender] and we had no income from the land. I have studied up to the Fifth Standard, but could not continue my education because of our poverty. I started working at the age of fifteen. There were no village institutions like the village panchayat or the cooperative society at that time. My grandfather had mortgaged two acres of our lands with the moneylender as collateral. We were subsequently tenants on our own lands. After the Tenancy Act was passed by the state government, which was in favor of tenants, I should have got back the land from the moneylender, but he did not return the land as required under the new legislation. I filed a suit in the law courts. The suit was in the court from 1963 to 1978. During these fifteen years my legal expenses were Rs 48,000. I could have purchased four acres of land with this money!

We were five children: two brothers and three sisters. One sister died of malaria. Later my older brother died within a couple of months of his wedding due to cholera. At that time I was about fifteen years old. He had married my uncle's daughter. Widow remarriage is prohibited in our family and so she remained a widow. My sister-in-law requested that I should marry her brother's daughter. This arrangement would have retained the family property within the family and would also protect her status as well as future security. I got married at the age of twenty. I did not take any dowry and my father-in-law bore all the wedding expenses. He also presented me with a 5-gram gold ring. I have four children, three sons and one daughter. My oldest son is working as a stenographer in the court, the second son is in the navy, and the third one is studying in the Tenth Standard. My daughter has studied up to the Fourth Standard and is now married and lives in Akloner.

I have been involved in religious activities such as *bhajans* [singing devotional songs] and I formed a group for this purpose. There were fifteen members in the group and we decided to undertake social welfare activities. One of my intentions was to bring down the prices of grain so that the poor people would get their daily bread. We collected ten kilograms of grain from each member. At the beginning, no one took notice of us. Gradually people started coming closer to us and I got control of the village administration. I

learned an important lesson, and that is that people are willing to accept leadership if capital can be accumulated. In reaction to our actions, the moneylenders closed down their moneylending business in our village. We sold some grain for the yatra [festival] and the remainder was given to the poor at low prices. At the same time we increased our capital of grain by advancing and recovering the same at 25 percent interest per year from those who could afford it. In this way we have collected a lot of money which we have used to partly pay for the village drinking water supply and electrification scheme on behalf of the Gram Panchayat, constructed the Vithal Rukhmani temple, repaired the gymkhana, and undertaken many other activities. We had decided not to depend on the government in a drought situation because we thought that we may not get help from them in time. We kept an extra quota of the grain stock in balance so that we would be able to save our people in such emergencies. I was the sarpanch [village headman] for ten years. After the first five years of my tenure, I was willing to leave the post, but people forced me to continue for another five years. My idea of decentralization is that the people should learn to carry the responsibilities of the village so that clashes will not take place for the post of sarpanch as we have seen in other villages. After my tenure as sarpanch, nobody was ready to become sarpanch.

I remember the drought of 1972. There was no rain at all. People were facing shortages of drinking water in the villages. It was supplied by water tankers. During this time, drought work was started by the government, such as percolation tanks, nullah bunds, road construction, and some other works. I worked on daily wages with the other villagers.

The Gram Panchayat ration shop was also run by me. After closing the shop at noon, I used to go to the area where the drought works were going on. I observed that payments to the laborers were not made regularly. Therefore, the laborers had no money to purchase grain from the ration shop. I felt helpless, as under the rules of ration shops I could not sell grain on credit. But I could not bear to see the miserable condition of the laborers and I decided to distribute grain on credit. I borrowed money from my friends and remitted the same to the government treasury to purchase the subsequent quota of grain. The laborers were very honest. Everybody repaid me before leaving the village. Giving credit was a risky job but it was necessary to face the situation for the sake of laborers. The block development officer was also impressed and supported me.

In the same period we constructed the Vithal Rukhmani Temple. We printed some receipt books and collected contributions from the leaders of Rs 200 to Rs 500 each for the renovation of the temple. The merchants from Ahmednagar also gave their contribution. The poorest of the poor from the village contributed Rs 71. Masonry work was done by one of the contractors from our village free of charge. People volunteered their labor and the temple was completed within four months.

Three or four years ago, the Social Centre came to the village and we helped to organize several meetings. I heard about works such as contour bunds, tree plantation, and nursery raising. I have experienced the work of tree plantation done by the government, which failed. But when the Social Centre came forward to do such work in the village, I welcomed them and agreed to give my cooperation wherever necessary. When Shri Tribhuwan from the Social Centre first came to our village, he introduced the working of the Social Centre to the people and explained the concept of the WSD program. The WSD program was started with the Village Watershed Committee, in which representatives from all areas of the village were selected. Not only that, but representatives from the landless, backward class, and women were selected by the villagers. The VWC met twice a month to take review of the work completed and the future work. The meeting also discussed the problems faced in implementing the program and possible solutions. Members of the VWC are also expected to supervise the on-going work. Priority of the work was decided in the meeting. I understood the policy of work of the Social Centre. It was nothing but development of the village through the participation of the people. Ini-

tially, people were not ready for the contour bund. I took the initiative and completed the work on my own land with the help of the Social Centre. The people saw its benefit, and other people came forward to do the work in their own lands.

Our village was included in the state government scheme, Rural Development Through Voluntary Labor, by the collector on merit. The main conditions to be observed by the villagers were two mandays of voluntary labor once a month and a ban on free grazing and no cutting of woods. These conditions were already being observed by the villagers. I gave full cooperation to the Social Centre because I have seen vast differences in the work of the Social Centre and that of the government. Where the government failed to achieve its target, the Social Centre has succeeded beyond our expectations. We understood the importance of voluntary labor as well as the ban on free grazing and on tree cutting, which was helpful to maintain the ecosystem.

We can now see the impact of several projects completed under the WSD program. Our wells, which used to go dry in the months of December and January, have got water in spite of the present drought situation, and I think that droughts have been reduced by 50 percent. We have got water that will last until the months of May and June. The neighboring villagers come to us and express their desire that the Social Centre should start work in their villages. I advise them to have unity first and have a dedicated leader. These villages are aware of the eligibility criteria and have started to change gradually to become eligible for inclusion in the schemes of the Social Centre. They have also started organizing meetings and are thinking of ways to motivate the people for voluntary labor.

Life Story of a Small Farmer with Some Irrigated Land (Backward Class)

I am Dadabhau Kashinath, age thirty-three, resident of Pimpalgaon Wagha. As I remember, we have lived in this village since the time of my grandfather, who was a farmer. My father was working on the land of one merchant as a bonded laborer. My mother was also working for the merchant as a casual laborer. My father had four brothers. He was very poor and the family members had to work as laborers for their daily bread. Our family did not have farm land. We were nine members in the family: my father, mother, myself, and six sisters. We had to take head loads of fire wood to Ahmednagar (twelve kilometers away) for sale. We were all illiterate except for one of my sisters who studied up to the Fifth Standard. We were not sent to school because my father had no money to purchase books. I used to hepherd the goats of other farmers and got some food for that work. But I decided that I would send my children to school. I got married in 1977. Now I have four children, three sons and one daughter. They are studying in school. The elder son is in the Sixth Standard studying at Chas. I take him every day to Chas on my bicycle. While he does his homework, I sit with him and he teaches me how to read. I now know how to read the newspaper very well. My daughter is only four years old. Because I have faced many difficulties in my life and could not get education due to poverty, I feel that my children should be educated.

I remember that the most difficult days were during the drought of 1972. My father and my mother remained half hungry to feed us. In those times, we ate red sorghum called nilva and boiled hulga pulses². We had to eat these to save our lives. Sometimes we remained without food. During those days, we, the backward class people, were also not allowed to enter the temples and in *Shmuan* [August] we were not permitted to enter the village. During the emergency period (declared by the central government in 1974), some government officers visited the village and explained to the villagers not to observe casteism. However, the older generation still observes it.

^{2.} Both are extremely coarse cereals not normally eaten.

During that time, I bought a buffalo for Rs 2,500. I got a loan of Rs 1,500 from XYZ.³ I had savings of Rs 500 and I borrowed the remaining Rs 500 from a private moneylender at an interest rate of 3 percent per month. But the buffalo went dry and I told the manager of XYZ that it was not possible to supply him the milk. Since the quality of my milk was better, he recommended my case to Dena Bank for a loan to purchase another buffalo through the Mahatma Phule Backward Class Corporation Scheme. I got a loan of Rs 5,000, purchased another buffalo, and started supplying milk to XYZ.

Meanwhile, the marriage of my sisters was fixed, so I sold the buffalo and spent the money on their marriages. I could not repay the bank loan. I had to borrow from the private moneylender, who was after me for recovery. Ultimately the milk business closed because I was heavily indebted. I decided to start another business or get some other work. I went to Bombay with a friend in search of work. We wandered for three days but we could not get any work. Ultimately, we became nervous and came back to the village.

I had no work or savings. I could not start any business. The dairy business was also closed. I did not know what to do. I was frustrated. I decided to commit suicide and climbed on a mango tree. My parents did not know where I was. They were waiting for me for meals and were searching for me. I thought if I committed suicide, there would be nobody who would take responsibility for the marriage of my sister. My father and mother would not live much longer. So I gave up the idea of suicide and came down from the tree.

I went to one of my customers to seek his advice on what I should do. I told him I wanted to start a business. He advised me to start distillation of liquor and I decided to do so. Actually I do not have any smoking, tobacco, chewing pan [betel leaf], or drinking habits, but I decided to start this business for the money. I borrowed Rs 500 from my friend for the raw materials. The money was with me for eight days, but I could not bring the raw material because I was afraid of the people and my parents.

Then I found one Mohamedan who knew this business and made him my partner. I was surprised to see that the people were reluctant to pay Rs 5 per liter for very good quality milk, but they were immediately ready to purchase one bottle of liquor for Rs 5. My partner started manufacturing the liquor. During the night time he would take the liquor on bicycle for sale, and during the day we brought the raw material by bullock cart. This business continued for four months. We worked very hard, but my partner did not give me a single farthing. On the contrary, he started to create disputes between my wife and I. Thus, I did not receive any income for these months of work.

I again started the milk business, but I did not take much interest because the income was not much. I had no money to buy fodder. In the meantime, my friend, Shri Sabaji, came to me and advised me to start the liquor business again. In Ganpati festival I took bhishi [money from an informal credit union] of Rs 500 and purchased necessary material for liquor production. This business gave me a good support and I was getting a profit of Rs 3,000 per month. This income helped me to support the weddings of my two sisters.

I contacted the Social Centre since they had adopted this village for development. I attended one of the village meetings where Shri Tribhuwan was present. He explained the aims of the WSD program, and I was very impressed. It was decided to first make contour bunding on the sloping lands. I requested to start contour bunding from my fields first. I was very glad to know that the village committee had decided to give preference to the backward class people. I was taking keen interest in this work and cooperating with the Social Centre. I even became a member of the VWC on behalf of my community. I have seen the benefits of contour bunding immediately after the first monsoon. There

^{3.} A local firm (not its real name).

was a good recharge to my well. The trees planted in this village under this program hardly can be seen in any other village.

I went to Adgaon village (Aurangabad district) where the WSD program had been taken up by the villagers. We observed that the contour bunds that we had constructed in our village were much better than those in Adgaon. We visited Tulapur and also saw the dryland horticulture program of ber [zyziphus fruit, an improved variety of berry]. We learnt a lot from these visits. The Social Centre had arranged one study tour to the local Agricultural University to see the various types of rainfed agricultural projects. In my village, shramdan [voluntary labor] was not new because people always worked voluntarily for community work, like building the temple or road construction. Up to now, 75 percent of the work under the WSD program has been completed. The villagers are convinced of its success as they have experienced very good results.

My impression about the Social Centre staff is that they are very cooperative, dedicated, and eager to help the poor. I have given my cooperation to the Social Centre because I have seen their selfless service. They are working for the good of the poor and not for themselves. As the Social Centre is taking care of the people, so also the rain decided to help us. It is my belief that the Social Centre definitely helps the poor people and tries to bring them out of poverty. I feel ashamed of being in liquor distillation, and have therefore decided to leave this business. I would be happy if I even could get only Rs 10 a day from any other business. The people of my village have benefited from all the schemes sponsored by the Social Centre. I am also in a much better position now. I have gained social respect. Last year, I was elected to the village panchayat. My people even say: "One day our group leader will be sarpanch of the village." This was unthinkable before WSD, as it is even now in most other villages nearby.

Life Story of a Medium Farmer with Some Irrigated Land

I am Ananda Paruji Wabale, forty years of age, from Pimpalgaon Wagha. We were nine members in the family: my parents, five brothers, and two sisters. I am the eldest in the family. My second brother is in the army, the third and fourth brothers have studied up to Fourth Standard, the fifth one has studied up to Twelfth Standard and is employed. Both my sisters are married. We all are living separately. I studied up to Fourth Standard at Pimpalgaon Wagha, Fifth to Seventh at Chas, Eighth to Ninth at Hingangaon, and then Tenth to Eleventh at Ahmednagar. I did further study up to first year of graduate courses in the arts at Ahmednagar. I was an active member of the college student body when I was a student of the college under the leadership of Mr. S. G. This experience helped me in my future career. I had to leave my education because my father died.

I do not remember my grandfather because he died during my father's childhood. My father was a farmer. But he spent all his energy to fight the injustices done by the landlord and the brahmin who had acquired our land illegally. When our survival was in danger, he went to Bombay and started working in a mill. He acquired knowledge of the Land Tenancy Act. He came back to the village and filed a case against the landlord and the brahmin. He was illiterate, but the land was in his name. It was nineteen acres, and later I added one more acre. I thus had twenty acres of land in my name. My father was happy, and he and two laborers from the village looked after the land. The laborers were paid Rs 200 to 300 per year plus daily food. The total land produce was forty quintals. My mother arranged my wedding with her brother's daughter and asked their side to bear all expenditure. So there was no question of dowry. My wife has studied up to Eighth Standard. My father died in 1973 because of an accident. After two months, I got married and my life took another turn.

^{4.} One quintal is equivalent to fifty kilograms.

It was during the drought (1977) that I received a notice from the cooperative society as well as from Bhuvikas Bank [Land Development Bank]. My father had left debts of Rs 400 and Rs 800, respectively. There was another debt to the government of Rs 200. Altogether I had to repay Rs 1,400. We started working on daily wages. The rate of daily wages was Rs 2.25 at that time. After my father's death, I came back to the village. I went for work on the Employee Guarantee Scheme immediately. After my marriage, both of us worked continuously for four to five years and repaid the loans. During those days, the villagers did not lend me money, nor did the grocery shopkeeper give me any commodities on credit. I had four bulls and six cows in my possession. I sold all of them for our survival, except for a pair of bulls.

My work as a laborer continued and here I played a very important role. The government work [percolation tank] was going on in the village by one of the contractors from Nasik. I, on behalf of the laborers, complained against him, and the result was unexpected. The village leaders supported him to file a case against me and he did the same. I was not frightened. There was support from my former student body, especially from my friend, S. G. Advocate H. K. helped me a lot. The case continued for one and half years in the court. In the end, the case was solved because no one came forward to be a witness against me. Our complaint against the contractor was considered and action was taken by the government. The work was given to another contractor. However, the percolation tank constructed by the previous contractor remained defective. The foundation was not properly filled, and therefore water cannot be stored in the tank.

In my personal life, I paid all my debts and helped my brother for his wedding. My wife and I took the initiative to complete the bore well. After the WSD program, there has been plenty of water in the well. We have brought around eleven acres of land under seasonal irrigation. Where there was no crop production, we took forty quintals of wheat and twenty quintals of sorghum from the same land within a year. We purchased one buffalo and one cow for milk production. Today I am selling 125 liters of milk. Financially I have established myself in the village.

I have faced opposition when the case was filed against me (which was supported by the village leaders). It was the beginning of my political career. When I entered the village activities, the social position of the village was different. The power was in the hands of three to four prominent persons. I am against dirty politics. I started to see the *Gram Panchayat* accounts. No one opposed me because I was the only person from the village who had studied up to college level. I corrected the accounts. The villagers learnt from my past experiences of how I faced the situation when the case was filed against me. Now they are aware and we find its reflection in the election for the post of *sarpanch*. But real development took place in the village through the work done by the Social Centre. Its existence in the village is sufficient to stop injustices toward the poor by the landlords and the merchants.

The Social Centre came to the village to work for people's development, not as a capitalist or funding agency. People are able to develop with their own initiative, but need guidance and motivation. The villagers welcomed the Social Centre and requested the Centre to attend their *Gram Sabha* meeting. The founder of Social Centre and the staff attended this meeting. The details of the organization and its working process were explained by the staff of the Social Centre. All the villagers agreed to work hand in hand with the Social Centre, and the Social Centre adopted the village for its integrated development.

The work started with regular meetings. Whenever difficulties arose, they were solved by the Social Centre with the participation of people. We heard about WSD from the Social Centre, such as contour bund, nullah bund, tree plantation, check dam, and so on. But the problem was how and where to start. The problem was solved by the Social Centre. It was decided in the meeting to first visit some successful projects. In the first

batch, five persons, including myself, visited Adgaon village, saw their development, and were very impressed. We not only understood the importance of contour bunds, tree plantation, and their results, but also understood the importance of water management.

We then formed the VWC. There were twenty-two members in the committee. In the first meeting after the Adgaon visit we decided to start contour bunding and nursery. It was decided that there will be an 80 percent contribution from the Social Centre and 20 percent of people's participation as *shramdan* [free labor]. As a member of the VWC, I have to shoulder some responsibilities. I have to supervise the work and see that it is going on well. It is a very difficult job and we cannot please everybody. If the villagers are not working properly, if they hesitate to come for voluntary labor, and if there are violations of the rules framed by the committee, I have to bring out all these facts in the VWC for action. Defaulters have to pay. Naturally some people are sometimes displeased with me, but I feel that this is my duty as a member of the committee.

At the beginning, some people were opposed to contour bunds in their own fields and we arranged another trip to Adgaon so that they could see and believe. Nearly forty people saw the changing face of Adgaon and came forward enthusiastically to develop their village better than Adgaon. I came forward to participate in the program because it helped to strengthen our unity through the way of democracy. Free labor helped to strengthen our brotherhood by understanding each other. Decentralization of power helped us to clean ourselves of dirty politics. And above all, we prepared the integrated rural development plan through motivation and the guidance of the Social Centre.

The Social Centre helped us to understand what the government scheme of *Shramshakti* was all about. We studied the government scheme while sitting in the Maruti temple for four or five days and understood the scheme. It is not the government who implemented the scheme, but the villagers with the support of the Social Centre. Up to now, thirty-five nullah bunds, two check dams, and sixty hectares of contour bunds have been completed in the village. I personally benefited from the watershed scheme. The well and pipeline on my own land is completed, about three to five acres of land has been brought under irrigation, and horticulture on the remainder of land (mango and pomegranate) is completed.

Since I am an educated person in the village, my intention is to see that the people who have left the village should return. We should let them have employment here in the village so that they need not migrate repeatedly for their daily bread. What we have faced, let the younger generation not suffer the same. The work is not simple and smooth, but we have to take the people into confidence. I am an active member of the VWC to make them aware and to ensure that such educational processes are continued subsequently.

I have appreciated the work of the Social Centre by which the above mentioned expectations have been fulfilled. They are very involved with the local people, and we are not two, but one. This is what has been observed by the neighboring villagers. They are impressed when they see our progress and demand the same in their own villages. I feel that the Social Centre, in its participatory approach to rural development, involves the people in the work. If such a methodology is adopted by any voluntary organization in rural development, it is bound to be successful anywhere in the country and in the world. These are my honest feelings about this institution.

Life Story of a Female Rainfed Farmer

I am Vimal Namdeo Vairal, about forty years of age, settled at Pimpalgaon Wagha for the last twenty years. My native place is Chas. My parents were in the business of ropemaking, but it was very difficult to maintain the family with this income. I have three brothers and two sisters. I am the oldest in the family. My father was interested in edu-

cating us and was thinking of a prosperous future for all of us. I have studied up to Seventh Standard. One of my sisters studied up to Sixth Standard and then left school, while the other sister is completely illiterate. One of my brothers studied up to Tenth Standard. The other one is blind, but studied up to Sixth Standard and then left school. He was helped by the Social Centre to complete his secondary education. We faced several difficulties at home. Many days we remained without bread. We did not have sufficient clothes to wear. As children, we also helped our parents in ropemaking.

As soon as I completed my education up to Seventh Standard, my parents spoke to my aunt to get me married to her son. The marriage proposal was accepted by her and I got married. My husband is illiterate. My aunt helped my father to meet the expenses of my wedding, but he also had to take some loans from other people. My husband was not working anywhere. He was a shepherd. I had to work as an agricultural laborer for many years (about twenty years). My husband subsequently got a job in a foundry and he has been working there for the last ten years earning Rs 700 per month. We have four children: two sons and two daughters. Our elder daughter is fifteen years old and she is illiterate. I have tried my best to give her education, but she never remained in class. My son studied up to the Third Standard and left school. The younger son is in kindergarten. I hope he completes his education.

Comparing the villages Pimpalgaon Wagha and Chas, the untouchability practices were continued in both villages. We were not allowed to touch anything belonging to the upper castes. We were not allowed to involve ourselves in any ceremony or feast in the village and had to stay far away from the high-caste people so that their purity was maintained. Today the situation has changed, though untouchability exists in the older generation. The new generation is against such inhumanity. Now we can take part in any festival, ceremony, or feast.

The situation of women was very bad in my generation. The newly wedded girl had to face lots of harassment and physical torture from her mother-in-law and her husband. Now those days are gone. Today she is quite safe. She is even taken care of by her mother-in-law as her own daughter. But they have to look after the family washing, cooking, and collection of firewood, and also work as agricultural laborers. Thus they have a lot of work and responsibilities. And here I got an opportunity to play a very important role.

The Social Centre is very much attached to the heart of the village people in Pimpalgaon Wagha since the last two to three years. I remember an incident when the Social Centre arranged the field exposure program for village women. It was my bad luck that I could not join it. I was very impressed by what the other women (women of all groups and communities in our village) told me. They enthusiastically came forward to unite the village women. I liked the idea and took the initiative to form the Mahila Mandal [Women's Group]. We began it with a revolving fund. We contributed Rs 5 per head. I am the secretary of this venture. The fund is made available to needy women. Since these women are unable to pay high interest, we decided to recover the amount by installment and by charging low interest rates. We can provide loans up to Rs 500 at a 2 percent rate of interest. The Social Centre also provides us with valuable guidance.

The Mahila Mandal is also involved in other activities. We are contributing our free labor for the work taken up by the Social Centre, such as nullah bunds, tree plantation, and so on. The Mahila Mandal is working hand in hand with the VWC. The women are aware of all the on-going activities. I am getting good cooperation from other members. I am willing to increase the revolving fund so that the financial situation of the poor can be changed. I am also trying to support a kindergarten class, and we are already paying Rs 50 per month to the teacher. It is a good sign that the women are coming together, discussing their own problems, trying to solve them, and uniting themselves.

Here I would like to say something about the work taken up by the Social Centre. It is only the Social Centre that tackled the problem of unemployment in the village. The nursery that was started in the village provided poor and backward women with employment. The VWC took up some work of contour bunds, digging trenches, nullah bunds, and tree plantation where we have benefited too. Such work is very good to stop soil and water erosion. It helps to percolate water in the land by which the water level in the well is increased. We have one acre of our own land. The Social Centre helped us to dig the well. Previously the land was completely dry, but now we have good water in the well and can irrigate the land. It has become cultivable. We have planted twenty mango trees in the field and our dream of horticulture is becoming true. The scenario of the village is changing fast.

Life Story of a Landless Stonebreaker

My name is Chima. My father came from Aurangabad to Pimpalgaon Wagha, my mother's native village. My father and my cousins belong to the group of stonebreakers. Up to the Tenth Standard, I went to school at three places: up to the Fourth Standard in Pimpalgaon Wagha, up to the Seventh Standard at a village five kilometers away from my home place, and up to the Tenth Standard I had to walk seven kilometers to another village. In the Tenth Standard I failed because of one subject: English. About the same time, my sister came home to our father's home for her delivery. So we had to look after her and my father had no more money to send me to school.

When I left school, I was about eighteen years old. I stayed at my father's home for the next two, maybe three, years. Then I was accepted as a motor mechanic trainee at the Motor Mechanics Service in Ahmednagar. This training lasted for one year. When I finished, I did not find a job. So I worked as a car cleaner. When I was twenty-two years old, I got married. This was in 1972, when there was a severe drought in our region. We used to live in my in-law's house because my wife's parents did not allow their daughter to live with me in my village. I went to Poona and got work there. When I wanted my wife to follow me, her parents did not allow her to join me. So my family broke up.

After that I went back home to my own village. I was about twenty-eight years old and had a second marriage. This was in 1978 and again, there was a very severe drought. I started to break stones with my father. This was the customary work of our community. For four months we had a full income of Rs 30 to Rs 40 per day for both of us, for another four months we had about half of this amount, and for the remaining four months we earned nothing at all. In all, our earnings came to about Rs 10 to Rs 15 per day. My wife went to work as an agricultural laborer, and she also worked under the Employee Guarantee Scheme. She helped me in breaking and carrying stones. Her income was between Rs 5 and Rs 10 per day. The three of us maintained our family of four to eight adults and our four children. After some time, five of our group, men and women, went to the forest lands to work in a mine. We had got permission to break stones up there from the Revenue Department because it was on government land. But one day, the Forest Department sent us away and closed the mine.

Now, we did not have work anymore. I was trying hard to find work. Work was very irregular. I would get work for a day, but would get nothing for the next four days. I was wandering from village to village asking for work, like a beggar. When I finally found something, this did not mean that I would bring home the money earned the same evening. I never got any cash, and many times I didn't get my earnings immediately. Often I would have to come three times and ask for my wage. Mostly they gave me first one kilogram of grain. The next time when I asked for the rest of my fair share, they might give me Rs 10, and they often made me come a third time. This begging for work meant that I and my family lost respect in the village, and my family's situation became very

bad. When my wife and children became sick, I had to go to the doctor. I sold the roof of my father's house in which we lived. It was a tin roof and it was the only thing of value left. With the cash, I paid the doctor's bill and bought medicine. In this state we lived for about four years. No one in the village wanted to lend me money. So I had no money to travel to Nagar, where the contractors were and the market was going on. Several times I walked the twenty-four kilometers on foot, but I never got any work. In those days we were very miserable and we lived in deep sorrow.

Then one day a road contractor came to Pimpalgaon Wagha and I got work for one year. I worked on road construction and was paid the minimum wage of Rs 15 per day. But their practice was to pay their workers whenever they liked to do so, and the money is always delayed. And they used to pay us less than the full amount. It was very difficult for me to maintain my whole family of eight with this income of less than Rs 15 a day. My wife didn't work, she was still sick. Then again, this period of work was over.

At that time the Social Centre came to Pimpalgaon Wagha. I went to the meeting and watched what was going on. I approached them and asked for work. They 'old me that there would be work once the village had decided to start with the WSD program. When the works finally started, I got work in the construction of the check dam. For four months our whole community got work there. My father, mother, wife, all of us were working under the food-for-work program. Here we got paid minimum wages and were paid regularly. Then the VWC of our village wanted me to be involved in the construction of the check dam, but the village had no faith in me. I had first to prove that I knew my work. In order to do so, I convinced a very renowned mason to work with me. When the work was going on, the villagers recognized that I knew my work better than he did. They then felt that I could do the construction. With the money my family earned, I first replaced the roof of our house. Then I bought clothes for my children and my family, and also medicine and treatment for my wife and children. Further, I had to manage the marriage of my sister's daughter. I paid for it all and I also repaid some old loans from my family members. I was even able to purchase milk for my children and my wife. I was also thinking about sending our daughter to school. Besides that, I was able to save Rs 5,000 of the money earned on the check dam.

The Social Centre helped me to get a loan under a government scheme for backward people, to which our group belongs. It was for Rs 5,000, Rs 2,500 as a subsidy, and the rest was to be repaid at 10 percent interest. Together with my savings, I leased part of the land inside the percolation dam area. The ground is very good there and I opened a quarry. The land is flooded only for a short period of the year, during the rains. The mine is on the boundary of two farms, and since they could not find out to whom the land definitely belongs, I gave a lease to both of them. I employ ten to fifteen people from my group. I pay them regularly and pay minimum wages. For the moment, there isn't any profit in the mine as the investment costs were too high. But the investment will be recovered within two to three years and then there will be some profit in this quarry. But what I am looking for in the first place is not my own personal profit or my own high income. For me, it is a profit if my community has continuous work and income. I want to give my community work. This is what I call my profit. For myself, I hope to earn enough money so that I can give my sons training for two to three years. I also want to get my daughters married so that they will face less suffering in their life than my wife and I.

Most important for me is that my status in my village and my community has very much improved. It is now very good. This respect from the others gives me much confidence, and with this confidence I am able to do what I do. The worst thing in my life was that I was an educated man like the others, and still no one listened to me. I was nothing. Nobody was ready to help me. Now I have got the courage to become a big man and my community has also grown with me.

The Impact of Watershed Development in Pimpalgaon Wagha

We evaluated the results of the participatory watershed development program in Pimpalgaon Wagha by means of quantitative and qualitative analysis. We drew a sample of 22 out of 109 households (20 percent) representing all socioeconomic groups in the village, including those headed by women, and in December 1991 conducted a microeconomic farm survey. We then compared the results of this survey to the socioeconomic baseline survey of all households (100 percent) conducted before the start of the WSD program in March 1989. Based on the microeconomic surveys, we classified households in Pimpalgaon Wagha into the following four groups, based on the potential productivity of their farmlands and the size of their landholdings:

- · The landless, with no farmland
- Rain-dependent farms, that is, farmers with less than six hectares of marginal rainfed farmland growing one crop
- Small irrigated farms, or farmers with less than two hectares of partially seasonally irrigated farmland growing two crops
- Irrigated farms, that is, farmers with more than two hectares of partially seasonally irrigated farmland.

The results show that these groups exhibited different economic behavior patterns and benefited differently from the WSD program. The assessment of the economic, social, and cultural changes and the results of the program were based on the twenty-two life stories from sample households in the village. Note that the microeconomic farm survey sample contains a proportionately larger group of the backward and landless classes than is actually present in the village, 40 percent as compared to 27 percent of the village population. We deliberately introduced this slight bias because it is usually the backward and marginalized classes, including the landless, who lose out in development programs. Therefore, we paid particular attention to this group. In addition, as the approach of the WSD program is mainly land-based, including these households in order to understand which groups benefited in Pimpalgaon Wagha, by what means, and by how much, seems especially relevant.

In interpreting the economic results achieved by the program, one needs to bear two additional facts in mind. First, the data were collected in a drought situation. The study year, 1991–92, was a year of drought in Ahmednagar district, with Pimpalgaon Wagha receiving only 56 millimeters of rain (instead of the normal 409 millimeters) during the

crucial crop months of August and September. The area had received normal rainfall levels in 1989–90 and 1990–91.

Second, the data were collected during WSD program implementation, that is, the water and soil conservation work started in early 1989. Thus, the results presented here are of an interim nature. This should be borne in mind where significant changes in certain indicators of development are not noticeable. In such cases, attention is drawn to the underlying trend.

Impact of the WSD Program on Agriculture

We first examined the impact of the WSD program on agricultural resources. The development of agricultural resources, especially water for irrigation, net cropped area, and crop productivity show a positive trend for all categories of farmers.

Wells and Water Availability

Prior to the WSD program, the village had seventy-five wells, forty of which had water for a maximum of eight months. By 1990–91, the village had eighty-two wells, forty of which had water for eleven months; however, in 1991–92 these forty wells had water for only eight months because of the drought. Nevertheless, some of the wells that previously had no water for irrigation purposes now had up to a three-month supply of water. Of the ninety-eight landowning farm households in Pimpalgaon Wagha, now only twelve have no access to any irrigation water whatsoever. The digging of new wells was not allowed in the first two years of the program so as to allow the groundwater level to rise. The first new wells were dug in 1992. Existing wells have also been repaired during the last two years. Farmers with access to some irrigation were most interested in this endeavor as they saw their wells recharging and brought them back into use through bank loans they took to make repairs.

The net area of seasonally irrigated land in the village increased from 60 hectares in 1988–89 to 100 hectares in 1990–91 (67 percent) and 168 hectares in 1991–92 (140 percent). In evaluating these trends, remember that the study year (1991–92) was a year with only fifteen rainy days, during which 60 percent of the rain fell on four consecutive days. The increased water availability under these adverse conditions implies that the water table had risen as a result of water harvesting measures and soil conservation work undertaken as part of the WSD program. The farmers also perceived this increased water availability in the same way. Their subjective interpretation was: "We didn't have such a good rain in the last forty years."

Net Cropped Area and Crop Productivity

The net cropped area for the village as a whole increased from 400 hectares before the WSD program to 600 hectares (a 50 percent increase) in 1990–91, but fell to 475 hectares in 1991–92, primarily because of the drought. The cropping pattern has also changed. Before the program, pearl millet was the main crop, grown on 300 hectares, and sorghum was the second most cultivated crop, grown on 100 hectares. With greater water availability, the share of sorghum rose to 300 hectares, whereas pearl millet fell to 100 hectares (1990–1991) and 200 hectares of pulses were grown in the *kharif* season. This change was

not only caused by the increase in irrigated area, but also by the availability of adequate soil moisture as a result of soil conservation work. In the study year the area under sorghum and pearl millet was reduced to 200 hectares and 70 hectares, respectively. Pulses remained at 200 hectares and 5 hectares of vegetables were added.

For the individual farms in the sample, the total cropped area in 1991–92 was not significantly higher, and in some cases was even lower, than in the baseline year (1989). The net area seasonally irrigated per individual farm increased from an average of 1.2 hectares to 2.0 hectares for the small irrigated farms and from 4.1 hectares to 6.5 hectares for the irrigated farms. The rain-dependent farms cultivated 2.6 hectares instead of 3.0 hectares (-13 percent), whereas the irrigated farms kept their total cropped area almost stable (19.5 hectares instead of 19.6 hectares), and the small irrigated farms cultivated 3.7 hectares instead of 3.6 hectares. The decrease in the cultivated area of the rainfed farms was caused largely by the drought in the study year.

Farmers with access to irrigation also decreased their area under rainfed agriculture because they were able to bring a bigger portion of their farmland under irrigation: 0.8 hectares (+66 percent) on average in the case of small, irrigated farms, and 2.4 hectares (+58 percent) on average in the case of irrigated farms. The increased groundwater availability despite the drought permitted them to extend their irrigated cropland.

Crop productivity also increased significantly. Before the WSD program, the yield of irrigated sorghum had been twelve quintals per hectare. This rose to twenty-two quintals per hectare (76 percent increase) in 1990 (normal rainfall), but dipped to fourteen quintals per hectare in 1991, the drought year. Rainfed sorghum yielded seven quintals per hectare in 1990 compared to two quintals per hectare in previous years, a clear indication of the impact of contour bunding and other farm-level works. Similarly, pearl millet recorded increases of 82 percent on irrigated land and 150 percent on rainfed land in 1990 (normal rainfall). In the sample group, rain-dependent farms experienced an increase of 42 percent in grain production per farm in 1991 compared to before WSD. Irrigated farms of both categories have experienced increases in grain production of 100 percent and 22 percent, respectively, for the corresponding period.

Horticulture

In addition to new cash crops, horticulture has been introduced in Pimpalgaon Wagha. The villagers have brought 11 hectares of barren land or wasteland under dryland horticulture, thereby increasing the size of productive farmland, and individual farmers have planted another 22 hectares of irrigated horticulture species. As this program has only just started, its results are not yet available.

Forestry, Energy Plantation, and Pasture Development

To date, the villagers have planted 87 hectares of wasteland (government, public, and private) with more than 200,000 saplings. The species used are indigenous, locally adapted, and drought resistant. The purpose is not only to provide the soil with adequate green cover but also to meet the villagers' basic biomass needs: fodder, fuel, biofertilizers, timber, and fiber. Despite the harsh environmental conditions and poor rainfall, the saplings are surviving fairly well, but any significant impact in the area of forest resources development will not be apparent for several years. In the area of fodder availability, however, the increase in the population of high-yielding milk cows demonstrates a significant improvement. Farmers are also allowed access to reserved forest area lands to cut grass by hand.

Livestock

One of the program's first effects was a decrease in the number of goats, which were kept mainly by the poor, small, rain-dependent farmers in the village. Out of 485 head, 92 percent was sold off progressively, and a total of 40 goats remain. This was a result of the villagers' decision to reduce the number of goats to protect the newly planted saplings. The farmers and landless people affected were able to compensate for the loss of income through wage employment generated by the soil and water conservation measures, and also through the increased local demand for artisanal goods and services.

The total number of local cows in the village has decreased, while the number of cross-breeds rose from 20 in 1989 to 200 in 1991, an increase of 900 percent. This indicates that the farmers, especially the irrigated farmers, quickly recognized the economic potential of stall-fed cross-bred cattle. Today, of the ninety-eight land-owning farmer households in Pimpalgaon Wagha, seventy-two are members of the Dairy Cooperative. Of these, five have no wells of their own and water their cows from the common wells.

The number of irrigated farms in the sample owning cross-bred cattle rose from 62 percent to 87 percent, and the number of cattle increased, on average, from three to seven following the WSD program, a 133 percent increase. The three main factors responsible for this growth are (a) that banks offered credit to farmers to buy cross-bred Jersey cows at the instigation and assurance of the Social Centre; (b) that with increased water availability and better land use planning, new fodder crops have been introduced into the cropping pattern of the farms, including *Leucaena leucocephalia*, a leguminous tree that provides green fodder; and (c) that the area under lucerne (alfalfa) cultivation has increased.

Between 1989 and 1991, the market price of a cross-bred Jersey rose from Rs 7,000 to Rs 10,000 for a cow providing ten liters of milk per day. Therefore, the bigger farmers with irrigated farms who had ventured into cross-bred cattle early in the WSD program had to invest less than other farmers who only recently started buying cross-bred cattle. The availability of water, as well as of relatively cheap capital, has allowed these bigger farmers to benefit more from this activity than those who only recently have acquired sufficient capital, resources, and assets. In 1991, the irrigated farmers did not forward any bank loan proposals for cross-bred cattle because they had acquired substantial income from the dairy, and they now purchased cattle from their own savings and the savings of the Dairy Cooperative.

The rain-dependent farms also show a clear interest in cattle. Their ventures into this activity, however, are much smaller both in absolute and in relative terms. The rain-dependent farmers have one cow on average. In their case, bank loans guaranteed by the Social Centre also financed the purchase of cattle. However, in 1991 this category of farmers did not ask for new loans for cattle, reflecting a fragile resource base (fodder, water, savings) and a low risk-taking capacity. The farmers in the sample with less than two hectares of partially seasonally irrigated land also did not purchase any cross-bred cattle. When asked why, they replied that they were channeling all their efforts, time, and savings into developing their farmlands. In fact, 60 percent of them had taken an average loan of Rs 6,500 for agricultural purposes in 1989 and were unwilling to take additional

risks. However, in 1991, 14 percent of the families applied for milk cattle loans, reflecting an enhanced resource base and an increased risk-taking capacity.

Daily milk output and productivity has increased. In 1988-89, total village milk production was 150 liters per day. This rose to 900 liters per day in 1990-91, and to 1,400 liters per day in 1991-92, an overall increase of 833 percent. Milk productivity for farmers with rainfed lands in the sample went up by 25 percent, and for farmers with more than two hectares of irrigated lands it went up by 22 percent.

Employment

During the study period, agricultural employment for the rain-dependent farms and the small irrigated farms increased from an average of six months to about twelve months per year. Part of the employment was nonfarm employment. Because of the development of their farmlands, these farmers, who previously swelled the ranks of the agricultural labor force, now increasingly find gainful employment on their own farms. During the agriculturally lean season, only about forty of them came to work on project activities. The employment period for the landless villagers in the sample went up from three months to nine months a year, an increase of 200 percent. The small irrigated farmers are now fully engaged year round on their own farms, compared to six months' employment per year before WSD.

Impact of the WSD Program on Incomes

Next we examined the impact of the WSD program on the income situation of the people of Pimpalgaon Wagha.

Farm Income

Farm income increased in all four groups of the sample. The absolute amount in nominal terms was quite high. This was partly because of the relatively high grain producer prices in 1991 caused by a shortage on the market because of the drought. In real terms, that is, producer prices adjusted to the base year 1989, farmers in all the groups still had a higher cash income than in 1989, even though crop losses because of the drought were considerable (about 50 percent). Rain-dependent farms experienced a real increase in farm income of 42 percent, small irrigated farms witnessed a real increase of 37 percent, and irrigated farms saw their incomes increase by 68 percent. The absolute real cash returns of all the farmers, even of the rain-dependent farmers, were high enough to compensate for their drought-related losses of grain. We did not calculate the income from oil seeds and pulses. Incomes from these sources were mostly generated by irrigated farms, and to a much lesser extent by small irrigated farms. We can assume that the amount of income from this source was considerable, as these products command high market prices. In 1991–92, the gross value of pulses produced in the village was estimated at Rs 175,000.

Income from Livestock

Nominal income from livestock doubled in 1991–92 compared to before WSD for the farmers with rainfed farms and more than tripled for irrigated farmers in the sample.

Both groups now derive the major part of their income from the sale of milk. The increase in real income (adjusted to the 1989 price of milk) for the farmers with rainfed farms, small irrigated farms, and irrigated farms was 42 percent, 5 percent, and 155 percent, respectively.

In 1991, the value of milk income exceeded the income derived from grain by about five times in the case of rainfed farms (with adjusted prices) and about four times in the case of irrigated farms. This can be interpreted as a consequence of the drought, which resulted in large crop losses, especially for the farmers with rainfed farms. Therefore, income from milk became the main source of cash income and livelihood for these groups of farmers under adverse climatic conditions. In the group of small irrigated farms the difference was negligible. These farmers have not increased their livestock holdings.

Farmers with larger irrigated farms (more than two hectares) are less dependent on dairy income for their livelihood. They obtain their incomes, even in a drought year, from agriculture that has benefited from land and water resources development, but their main source of investment income is from their dairy businesses. Because milk is collected from the village once a day and the local Dairy Society guarantees prices, this income has proven to be substantial, with consistent cash flows. Milk income is therefore more reliable and less risky than income generated by agricultural production. As for these farmers, their main agricultural investment consists of buying more cross-bred, stall-fed Jersey cattle.

On the village level, with dairy production of 1,400 liters of milk per day, daily earnings work out to Rs 6,300 and annual earnings to Rs 1,800,000.

Nonfarm Income

Before the WSD program, a few rain-dependent and small irrigated farm households derived some additional income from salaried employment (postal worker, teacher, seasonal factory worker), self-employment (shopkeeper), and craftsmanship (carpenter, blacksmith, barber, rope maker, cobbler, stonebreaker). Today, however, the number of such households has increased and so has the volume of nonfarm income per household. The average annual wage income of a landless household generated from the program rose from Rs 2,000 in 1989 to Rs 5,200 in 1991, an increase of 160 percent. The income from artisanal activities increased from Rs 2,000 in 1989 to Rs 6,000 in 1991, a 200 percent increase, with this increase most pronounced among the landless households. Stone mining, a traditional occupation of some of the landless in this village, has expanded significantly. This increase in nonfarm income of the landless community is largely due to the increased demand for goods and services generated by the large injection of money into the village economy by way of wages and also to the investment opportunities opened up by the Social Centre. During the study period, the average increase in nonfarm income for the rain-dependent and small irrigated farm households was 60 percent and 69 percent, respectively.

Benefits Accruing to Different Groups

There were also certain benefits that accrued to different groups in Pimpalgaon Wagha as a result of the WSD program.

THE LANDLESS. During the early phase of the WSD program, the landless reaped obvious benefits. Most of them participated in the wage labor related to the implementation of the program. The adult members of about 80 percent of these households regularly worked under the program, earning Rs 12 per day. The families interviewed indicated that they wanted to take advantage of such a rare situation where employment was available for nine months of the year instead of the three months or less before the WSD program. As mentioned earlier, the cash income of the landless increased by 160 percent from 1989 to 1991-92. Moreover, some young boys have been taught to drive and have aiready secured jobs outside the village. Some landless have also been given village-level government jobs. The total annual earnings per landless household in the sample from all sources work out, on average, to Rs 13,900, an increase of 152 percent compared to their earnings in 1988-89.

FARMERS WITH RAIN-DEPENDENT FARMS AND SMALL IRRIGATED FARMS. During the implementation phase of the WSD program, farmers with rainfed farms and small, irrigated farms doubled their total nominal family income. The increase in real terms was 48 percent and 57 percent, respectively. However, in both nominal and real terms the increase is proportionately less than that of the other two categories, that is, the landless and the farmers with irrigated farms. This is perhaps related to the fact that the income of farmers with rain-dependent and small irrigated farms is largely generated from landbased activities (dairy, agriculture, fodder production), whereas the landless gained from wage labor and income from artisanal work, and the larger irrigated farmers relied mainly on dairy activities for their incomes. While the income of the latter two groups increased because of the development of measures to conserve water and land resources, income for the rainfed and small farmers is likely to increase substantially in subsequent years as area treatments are completed and they dig wells and adopt better farming and agricultural management techniques.

Observing how the small irrigated farmers keep pace with the development of the other groups will be interesting because their expansion capacity is limited by the relatively small size of their landholdings compared with the other landholding groups. However, irrigated horticulture, vegetable, and oil seed production, which some of these farmers have already undertaken, could open up new and profitable avenues. The adult members of households of as many as 83 percent of farmers with rainfed farms in the sample worked as wage laborers on project activities in the first year. After that, as families increasingly found gainful employment on their own farms, they dropped out of the labor force, and today only 75 percent participate. Moreover, the wage component of total family income is progressively declining for this group. Such a reduction of the available labor force might have a positive effect on daily wages in the agricultural sector.

FARMERS WITH IRRIGATED FARMS. The benefits to farmers with irrigated farms during the first phase of the program are evident. The families in this group of the sample have increased their real incomes by 70 percent mainly through their dairy activities.

General Economic Impact

We now consider the impact of the WSD program on the household economy and on the economy of the village as a whole.

The Household Economy

In the first three years of the implementation of the WSD program, 1989 to 1991–92, most villagers profited from regular and reasonably substantial incomes created by the program's activities. This cash income has enabled them, especially the landless and farmers with rainfed farms, to:

- Secure their livelihoods, improve their living conditions, and eliminate longstanding debts and other kinds of dependencies, such as bonded labor relation-
- Save money to purchase equipment and stabilize their economic situation, so much so that some villagers are now able to risk abandoning wage labor to engage in self-employment activities.
- Gain access to special government subsidy and loan schemes, which have enabled them to get the necessary financing to start microenterprises and other economic activities.
- Establish their own credit union and to start supplementary income-generating schemes, such as raising poultry. This applies to the women, who form the bulk of wage laborers. The health and nutritional intake of women and children has also improved considerably.

The Village Economy

The availability of year round, relatively remunerative employment opportunities and the increase in agricultural productivity have had a marked impact on the village's economic life. The following are some of the changes observed as a result of the WSD program:

- Unlike the situtation during previous droughts, villagers have not emigrated from Pimpalgaon Wagha to the towns or to villages irrigated by canals. In fact, eight families who had previously left the village returned.
- Crop losses because of poor rainfall amounted to 50 percent in Pimpalgaon Wagha but in the neighboring villages they were more than 80 percent. Moreover, because the prices of food grain and oil seeds almost doubled and because of the use of improved seeds and appropriate practices, both quantity and monetary value were not too different from the previous year (a year of normal rainfall). Food security has therefore been assured to all villagers.
- The increase in disposable cash income, especially that of the cattle-owning farmers with irrigated lands, has resulted in an increased dem and for agricultural labor, locally produced building materials, and locally available specialized skills (cobblers, blacksmiths, masons, carpenters). Some enterprising villagers, such as a landless stone-breaker, have combined their savings and bank loans to invest in microenterprises, such as stone mining, brick making, well digging, and pen making. The village cobbler and carpenter have taken loans and upgraded their services from merely providing repairs to manufacturing shoes and carts. Thus, the risks to people's livelihoods, especially in times of drought, have been reduced because of the increase in the number of economic activities and improved management practices.

- The agricultural daily wage rate has increased from Rs 10 to Rs 15 for women and from Rs 20 to Rs 30 for men. The value of irrigated land has gone up from Rs 8,000 to Rs 20,000 per acre, and that of rainfed land from Rs 4,000 to Rs 12,000 per acre.
- The increase in incomes has led to the rapidly increasing availability of investment and credit funds in local indigenous institutions, such as the Grain Bank, the Youth Group, and the Women's Fund.
- The villagers have built several new houses and renovated some old ones. In addition, Pimpalgaon Wagha now has two grocery shops rather than one as before, nine mopeds compared to none previously, seven television sets rather than one, and a solar powered wireless telephone linking the village with the town of Ahmednagar.
- The villagers now generally wear clean clothing of superior quality and use the bus to get to town more often than bicycles.
- The practice of private moneylending has ceased completely. Indigenous credit associations or groups now provide loans. Estimates indicate that nearby banks have some Rs 1.5 million in fixed deposit savings.

Impacts on Natural Resources

The impacts of the WSD program on natural resources have been as follows:

- The ban on free grazing and cutting of trees has resulted in the hills having a cover of grass. Shrubs are now in greater evidence and local grass species are beginning to reappear.
- The streams, which in a year of normal rainfall would flow up to November, now flow up to January even in drought years. Soil conservation measures along with water harvesting structures on these streams have increased the groundwater table, and this has consequently led to greater water availability for irrigation and domestic purposes.
- The rate of soil erosion has declined as evidenced by the lower rate of siltation. The silt traps and deposition fields in the upper catchment area filled rapidly in the first two years of project implementation, whereas the lower ones show negligible siltation. Since then the waterways have become lined with grass, indicating that the speed of flowing water has been reduced.

Impacts on Human Resources

The impacts of WSD on the villagers themselves have been social, cultural, and political, and includes the following:

The backward castes are not only represented on the VWC, but participate actively in decisions concerning village matters. Moreover, they also participate in all village religious festivals, which was not the case at the beginning of the program. Caste-related religious taboos have virtually disappeared as VWC meetings are held in the village temple.

- · Women, for the first time, have their own group funds, which they have organized and manage.
- Villagers have become familiar with local government departments, banks, and so on and have learnt to access their services.
- The village leaders have become more socially responsible, for example, the sarpanch donated some of his land for the building of a road.
- Villagers, especially the VWC members, are actively promoting WSD in other villages. The registered VWC is now preparing to "adopt" a neighboring village for WSD work.

Lessons Learnt

This chapter elaborates on the lessons learnt from the participatory WSD program in Pimpalgaon Wagha. These lessons are important not only because of their implications for policy development, but also for other participatory natural resources management programs.

Lessons Learnt by the Government

- Government commitment to and programs for integrated rural development are necessary, but are insufficient by themselves to attain the desired results. An essential component is to seek the active participation of the whole rural community in identifying its basic needs and in formulating and implementing specific development programs.
- Government bureaucratic agencies will generally not inspire confidence in the
 rural community and induce community participation. A nongovernmental organization that works closely with the village community and is familiar with its
 problems is more suitable to serve as a catalyst for inducing community participation and engendering cooperation among villagers and government development agencies.
- Such an NGO should be carefully selected, and the government should actively create favorable conditions for the establishment, development, and professionalism of competent NGOs.
- Once a competent NGO is selected, the government should cooperate with it, as
 well as with the rural community, to formulate and implement programs that
 both the NGO and the rural community fully accept.
- The NGO should coordinate the programs on behalf of the community that will benefit from them, with the cooperation of government development agencies. It should act as a broker in bringing together the government and the people, and should also be involved in all levels of project planning and execution.

Lessons Learnt by the Social Centre

The lessons the Social Centre learnt from participatory watershed development in Pimpalgaon Wagha can be broken down into policy-level lessons, implementation-level lessons, lessons on village selection, and lessons concerning financial matters and staff.

At the Policy Level

- Watershed development is possible only when the creative potential of the people is awakened, mobilized, and organized in such a way that they form self-help groups that are oriented toward managing the program for the long-term benefit of all.
- The role of an NGO is that of a catalyst and an advocate of the people. Its job is to mobilize the people; to empower them by placing them in contact with development institutions, for example, the government, centers of agricultural extension, and banks; to upgrade their skills in the various aspects of project management and maintenance; and to enhance the productive potential of created assets. The NGO should not 'ry to replace the people's own initiative and responsibility.
- Instead of undertaking isolated projects, the NGO should develop a strategy to
 tackle basic problems that affect the entire community and require community
 action. In villages where the environment is degraded, the focal point of the
 NGO's development strategy should be soil and water conservation, and the
 NGO should coordinate all other programs with this basic program. Only in this
 way can a whole community be aroused to take united cooperative action.
- The NGO should work in close cooperation with the government's development
 agencies. Where people are not familiar with the NGO, an introduction by a government agency close to the community may establish its credibility.
- Religious or cultural symbols that are shared by the community as a whole can be used to unite the community and inspire it to take action.

At the Implementation Level

- From the very beginning of project implementation, the NGO should plan for progressively delegating more responsibilities to the villagers and the village watershed committee to ensure the project's long-run sustainability. The NGO should also think about creating a maintenance reserve fund (consisting of skilled locals, funds, and materials), which should be integrated into the village's socioeconomic and cultural mechanisms. For instance, in Pimpalgaon Wagha, the maintenance fund will be amalgamated into the Grain Bank, because it is an integral part of the village's religious life. Hence, the fund will not only be assured of an increase in its working capital, but also of public accountability.
- By its nature, an area treatment program requires the support and goodwill of all
 those who have a claim on that environment. Thus, although the program should
 pay particular attention to the marginalized and weaker sections of society, it
 should studiously avoid a target group approach because this can separate one
 group from the other groups in the village and can lead to ill will and a lack of
 cooperation.
- The Gram Sabha should decide on the issues of equity, with the NGO playing a
 constructive and supportive role. The imposition of outside ideas of equity may
 prove to be counterproductive if villagers do not perceive them as fair within
 their particular socioeconomic and cultural situation. Conditionality, that is, the

availability of project financing that is subject to certain terms, for example, distributing land to the landless, sharing anticipated water surpluses, and having common property resources, would be more meaningful during project implementation (when benefits actually accrue and are seen to be substantial) than before or at the beginning of project implementation.

- If interest, enthusiasm, and a willingness to accept social discipline (voluntary labor, ban on free grazing, and so on) increase, then a village watershed committee should be established. It should represent all the socioeconomic classes of the village, and either the *Gram Sabha* should choose its members or the entire adult population of the village entitled to vote should do so. Not assigning this function to a political body like a village panchayat is wise, as this may have divisive repercussions, because the village panchayat represents a political party rather than the entire population of the village.
- Whenever possible all relevant development institutions should be involved. All efforts should be made to orient these institutions in a way that reflects the people's priorities and demands rather than administrative and bureaucratic priorities.

Village Selection

- Villages in the interior that are environmentally degraded and have at least 70 percent of rainfed land should be selected for the WSD program.
- Villages should have a manageable population, and the area for treatment should be such that the locally available labor is able to service it. This does not exclude importing labor if this is an economically viable option.
- Villages in the upper reaches of a drainage system are preferable. Also villages should not exhibit great disparities in their landholding patterns or debilitating social and political conflicts.
- Villages in which other NGOs or developmental groups are involved should not be adopted, because this might create rivalry and unhealthy competition.
- Villages likely to succeed are those in which people have a tradition of conflict management and consensual decisionmaking in matters that affect the village as a whole.

Financial Matters and Staff

- Project financing should be flexible. For example, freedom should be given to change the purpose of approved amounts as the need arises, provided that the new use falls within the overall objective and scope of the project.
- Approval, disbursement, reporting, and monitoring procedures should be situation-specific, sensitive, simple, and timely.
- Participatory development depends largely on people management and personal relationships. Therefore, having the right kind of staff in place as area managers or project directors who are responsible for actual fieldwork and contact with the

villagers is crucial for the success of such projects. Although some academic qualifications might be necessary for the local self-help group promoter, the promoter's attitude, aptitude, and values are more important. Only a person whom the villagers perceive as being sincere and committed will be able to influence and encourage them. This calls for the selection of the right kind of dedicated staff. Because participatory development programs have no formal working hours, the families of social workers and area managers are (where applicable) often called upon to make sacrifices because of frequent absences from home. In addition, because large amounts of funds flow through the hands of the staff, they must be adequately paid. Aid or project packages often neglect this side of project management and tend to emphasize equipment and project expenditure. Experience has shown, however, that contented, dedicated, and competent staff are the essential ingredient for successful participatory development.

- If the objective is to empower the people and initiate a people's program, then
 the people must have access to project financing and decide how to spend it.
 Mechanisms should be developed whereby people not only can make their own
 contributions, such as providing voluntary labor or management time, but also
 have a say in how project funds are disbursed. The project must be accountable
 to the people.
- In projects undertaken jointly with the government, the NGO not only must arrange for financing to undertake those activities that fall within its purview, but to a certain extent also must undertake responsibility for those works that the government may either leave incomplete or not undertake at all because of technical, financial, or procedural difficulties.

Lessons Learnt at the Operational Level

The following investigations or surveys should be conducted once the area, village, or groups of villages have been shortlisted or selected for a participatory WSD program:

- The economic situation, both in general and by social group
- The political situation, including intergroup and intragroup relationships and party politics
- The social situation
- The history of the village and its culture, customs, and traditions
- The needs of the community, specific groups, and individuals; their urgency and priority; and the ways the village has tried to meet these needs in the past
- The village's geography and environmental history from the villagers' point of view
- A technical survey of the natural resources system base, which will be needed for the technical planning of the WSD program.

Action

After obtaining information about the village's socioeconomic, cultural, and political situation and gaining an understanding of the problems and the interrelationships be-

tween different groups in the village, representatives of the NGO should present the program's objectives and the approach to be followed to the people and explain them clearly as follows:

- The NGO is neither a funding agency nor a contractor. It does not do a job to fulfill targets like some government departments.
- The NGO is merely a supporting and enabling institution that will negotiate with the government and other institutions and organizations to put their resources at the service of the people, and will to undertake project planning and execution together with the villagers, with the villagers progressively taking full responsibility for executing and managing the WSD program. The NGO can assist people effectively only if they decide to help themselves and if they cooperate as a group or community in a particular venture. If cooperation by those for whom the program is intended is not forthcoming, the program will not achieve its objectives.
- If cooperation is forthcoming, then awareness and motivation programs should be undertaken, in particular, village representatives should be exposed to other villages that have successfully performed WSD work.
- If interest, enthusiasm, and a willingness to accept the necessary social discipline (providing voluntary labor, agreeing to a ban on free grazing, and so on) increase, then the Gram Sabha should establish a VWC and nominate committee members.
- A work plan should be drawn up with the consent and input of the people and decisions should be made about the execution of the program under the supervision of the VWC and the NGO. Wages should also be paid jointly by the VWC and the NGO, wherever applicable. The work approach should emphasize soil conservation measures and biomass regeneration. Treatment of the microcatchment area generally should precede water-harvesting structures.
- The NGO and the VWC should regularly monitor and supervise the work done under the program.
- Selected village youth and farmers should be trained in various aspects of the environment, ecology, conservation, and sustainable agriculture. This will create and also enhance local knowledge and skills.
- When the project is nearing completion or has been completed, the village's achievements should be recognized by, say, visits from high-ranking dignitaries or press coverage. This will encourage other villages to undertake WSD work. Care should be taken to ensure that all those individuals and private and public institutions that contributed significantly to the project are also publicly acknowledged. This will generate good will and enthusiasm for further cooperation.

Tips for Development Practitioners

From these lessons derived from the participatory WSD program in Pimpalgaon Wagha, we have culled some practical tips for those policymakers and project staff who are entrusted with actual project implementation. These are presented in Box 8-1.

Box 8-1. Tips for Development Practitioners

Select a village carefully, keeping in mind the probability of success and the possibility of replicability.

Seize every opportunity to do a good turn to those whose cooperation you seek. Establish warm relationships.

Use the existing official or unofficial village structure to acquire access and legitimacy.

Obtain positive references from people and institutions known to those you seek to collaborate with.

Let villagers develop and express their own ideas, thoughts, and decisions. This leads to the owning of the program by the villagers.

Involve all the important villagers in the program.

Let the people do the work themselves. This enables them to acquire self-confidence, knowledge, and contacts.

Use the local political system.

Arrange activities in such a way that the better-off groups, who have a greater risk-taking capacity, are the first to adopt a potentially helpful scheme or activity. Only then will other weaker groups follow.

Remember that opposition decreases as success increases, thus progressively reduce intermediaries' role. Be aware that people will come forward to cooperate only when the development agencies have established their credentials and credibility, and get high-ranking functionaries to visit the village occasionally and see the project for themselves.

Introduce the idea that some day the NGO will withdraw and the people will have to manage the program on their own. This will force them to take progressively greater responsibility for the program.

Keep in mind that farmer-to-farmer extension is a powerful means of generating awareness and building motivation. Farmers tend to believe only what they see. Hence visits to successful projects are extremely helpful, especially given that beneficiaries must actively contribute to project expenditure in some way. Moreover, they must be fully involved in the entire decisionmaking process. This binds them all together and makes the program their program. Prepare a local (village-level) pool of skills and resource persons. This will keep the program going after the NGO has withdrawn.

Note that conflicts are inevitable. A system of checks and balances designed by the villagers will ensure the accountability of all parties concerned. Never marginalize opponents, but cooperate with them wherever possible. Settle all work-related conflicts in public, especially during *Gram Sabha* meetings.

Encourage the evolution of local institutional mechanisms to take responsibility for project execution and maintenance. Do not take a target group approach, except perhaps in the case of women. All sections of the community should be represented in these institutions or bodies. A confrontational or reservationist mentality will only ruin the project. All must not only benefit, but also believe they are benefiting fairly. Enduring and meaningful social change occurs only when significant project-related benefits are fairly distributed to all. Who gets what and how should be settled in the *Gram Sabha*, with the NGO playing the role of constructive provocateur and skillful persuader in favor of the marginalized and poorer sections of the village. Do not impose your ideas on the people, but try to generate just and reasonable ones from them instead.

Do not get discouraged when people do not live up to your expectations. Begin with the enthusiastic and move ahead. The rest will follow. Use existing and traditional sociocultural mechanisms and practices to awaken and channel the creative potential of the people (the traditional voluntary labor system in the village, the informal credit unions and so on). Religious and cultural practices and celebrations are powerful symbols of shared identity and community. They bind the people together and evoke a sense of joint responsibility. Such occasions should be used to convey to the people the sense of a solemn common undertaking.

Discuss all issues, doubts, and difficulties openly in a public forum. This builds up mutual confidence and trust among the partners that are involved in the project. For example, the NGO that enjoys the people's confidence must assure them that it will stand by them and will attempt to fill any gaps that may remain because of the inadequacies or shortcomings of the other partner by, for instance, providing complementary financing. All the major partners must plan and implement the project together with the people and should avoid a top-down approach. In such cases, the promoting NGO often needs to under take the coordinating and facili tating role.

Ensure that work responsibilities are clearly apportioned between the actors so that no misunderstandings or overlaps occur. Develop a common understanding and commitment to achieve the agreed goal within the decided timeframe. Involve high government officials in the project. Their support will help generate enthusiasm.

Appendix

A View from Within—The Life Stories of the People of Pimpalgaon Wagha

This appendix provides an assessment of twenty-two life stories of the people of Pimpalgaon Wagha.

Motivation to Participate in the WSD Program

What made the villagers interested in and motivated to participate in the WSD program initiated by the Social Centre?

Reflection of their situation

There was a drought. Family survival was in danger. There was no rain, no grass, no fodder for the animals, no water, no farming. The main factor was water. From where to bring it? We realized there was a waste of rain water. We heard about Adgaon village, which had developed even in a drought area. (Raosaheb, Maratha, irrigated farmer).

Enhancement of own insight by field exposure trips

I had heard about Pani Adava, Pani Jirava (stop flowing water and let it percolate) but I could not understand how to do it. The visit to Adgaon with the Social Centre help. J us to understand the process. Twenty-five villagers visited Adgaon. What we saw was not new to us but gave us new insight. When we came back to the village, the cycle of meetings for planning, implementation, and evaluation continued regularly. (Raosaheb, Maratha, irrigated farmer).

I remember an incident when the Social Centre arranged the field exposure visit for village women. It was my bad luck that I could not join it. I was very impressed by what the other women told me. They enthusiastically came forward to unite the village women. I liked the idea and took the initiative to form a *Mahila Mandal*. (Vimal, female, backward class, rainfed farmer).

Positive example of the VWC members

The villagers were frightened by the suggestion to take loans. But we held several meetings with the support of the Social Centre. Then the VWC was formed. We included all the representatives of the village without reference to caste or creed and included the poor and the rich, the high caste and low caste, males as well as females, a total of twenty-two members. The same members took the initiative to apply for bank loans for the milk business. The Social Cent. I helped us a lot to get the loans san ctioned from the bank. (Raosaheb, Maratha, irrigated farmer)

Transparency of decisionmaking through representation of all social groups

I was doubtful of the VWC. I thought the committee would take advantage of the program. But now I have realized that there is minimal chance of this happening, as the committee is formed not only of the big people and rich people but has also in-

cluded poor people and the landless. First, we thought the rich people would not see the problems of the poor. But we found that the rich people in the committee first gave the advantage of the WSD work to the poor. It is my understanding that the rich people changed because of the Social Centre. (Ramdas, Maratha, rainfed farmer).

Credibility of leadership

Another thing is that the government staff has seen the red signal from us, no corruption, please, and they have followed it very well. Its best example can be seen from the tree plantation completed by the government under *Shramshakti Gram Vikus*. Now the same trees have grown very well. (Jaywant, primary school teacher, backward class, small irrigated farmer).

Understanding of cause and effect

We understood the ban on tree felling and free grazing and the need to contribute free labor. We believed that it is essential to stop the rain water flow by means of contour bunds and check dams. I have chosen this program because there is a severe drought in our area. And its result is the shortage of rainfall, shortage of firewood, and lack of fodder. That is why I came forward to give my land for contour bunding. (Sahebrao, Maratha, medium irrigated farmer).

Taking risks

I mentioned the name of the Social Centre and it played a very important role in the village. I welcomed its appearance in 1987, but the old generation was anxious about it. Since it is a Christian organization, they were afraid that they would have to change their faith. "We will see," I told them, "when they ask us to do so." But today, this problem is not important anymore. (Sahebrao, Maratha, medium irrigated farmer).

Benefits achieved

The motivation and guidance of the Social Centre was most important. That is why rules, such as the ban on free grazing, tree cutting, free labor, selling of goats, and stall feeding, were followed by the people. I sold nearly twenty goats and purchased cows and I found this to be more profitable than goats. (Murlidhar, Maratha, medium irrigated farmer).

Interest in unity of the village

We people were united in the village, but our unity was strengthened by the Social Centre. We are attending regular meetings twice a month and whatever work has been completed now is because of our common decisions. The ban on goats was necessary to grow plants on contour bunds and we requested the villagers to sell their goats, which were harmful for achieving this target. The goat population decreased step by step. There were 1,500 goats in the village and they were down to 100 within a period of four months. (Raosaheb, Maratha, irrigated farmer).

Contribution to Success of the WSD Program

As the program's success depended on the active participation of many actors, how did the villagers contribute in this respect? What factors induced them to undertake certain activities and reponsibilities?

Prove competence and get recognition

The VWC of our village wanted me to be involved in the construction of the check dam. But the village had no faith in me. I had to first prove that I knew my work. In

order to do so, I convinced a very renowned mason to work with me. When the work was going on, the villagers recognized that I knew my work better than he did. They then felt that I could do the construction. (Chima, backward class, landless stonebreaker).

Giving land for common purpose

I took all the responsibility for the nursery because if the work fails, the Social Centre will not work here and will leave the village. So I gave my land for the nursery and it succeeded beyond my expectations. About 80 percent of the tree plantation was successful. I also gave land for a check dam. (Daulatrao, former *sarpanch*, irrigated farmer).

· Becoming an active member of new village institutions

The Mahila Mandal was formed and I became an active member of it. We members have started a fund collection scheme and are saving Rs 5 per month per head. I am working hard in the drought work taken up by the Social Centre. (Parubhai, backward class, landless woman).

Taking responsibility

As a member of the VWC, I have to shoulder some responsibilities. I have to supervise the work and see that it is going on well. It is a very difficult job and we cannot please everybody. If the laborers are not working properly, if the villagers hesitate to come for voluntary labor, if there are violations of the rules framed by the committee, I have to bring out all these facts in the committee. Transgressors have to pay. Naturally, some people are sometimes displeased with me, but I feel that this is my duty as a member of the committee. (Anand, Mondtha, irrigated farmer).

Taking initiative in organizing the Mahila Mandal

The study tour was organized for us. We visited Palashpur where women's development can be seen. I was very impressed when I saw their activities and participation in the development work. The same thing encouraged me to form the *Mahila Mandal* in my village. Most of the women were frightened to talk about this subject, either because of their father-in-law or mother-in-law or their husbands. I took a chance to talk to the women when they came to fetch drinking water from the well or were washing clothes at the stream or during the work on the percolation tank, tree plantation, or other works. I have succeeded and now there are more than sixty members of the *Mahila Mandal*. (Dattatray, Maratha, small rainfed farmer).

· Coming forward and taking the risk

When the Social Centre explained the aims of the WSD program in the meeting, I was very impressed. It was decided to first do contour bunding on the sloping lands. I requested to start contour bunding from my fields first. I was very glad to know that the village committee had decided to give preference to the backward class people. I was taking great interest in this work and cooperating with the Social Centre. I even became a member of the VWC on behalf of my community. (Daulatrao, backward class, small farmer).

Sticking to joint action and common goals

I am strictly following the rules and regulations passed by the VWC. I have sold my goats to save the planted trees and grass because I have understood the importance of the ban on cutting, the ban on free grazing, and *shramdan*. Now the trees and grass are growing fast and I am not at a loss by selling goats. In the future, we can start

stall feeding practices for these animals. (Saba, former migrant who returned home, rainfed farmer).

Individual Evaluation of Benefits Achieved

What benefits, if any, resulted from the WSD program?

Coverage of basic needs

With the money my family earned, I first replaced the roof of our house. Then, I bought clothes for my children and my family and also medicine and treatment for my wife and children. Further, I had to manage the marriage of my sister's daughter. I paid for it all and I also repaid some old loans from family members. I was even able to purchase milk for my children and my wife. I was also thinking about sending our daughter to school. Besides that, I was able to save Rs 5,000 of the money earned on the check dam. (Chima, backward class, landless stone breaker).

Benefits

The benefits we have gained from the WSD program are many. We have employment, three meals a day, the cattle have got grass, and we need not leave the village for employment. (Ramdas, Maratha, rainfed farmer).

Water

I have seen the benefits of contour bunding immediately after the first monsoon. There was a good recharge to my well. The trees planted in this village under this program hardly can be seen in any other village. This is because the villagers had taken a decision of no free grazing and no cutting of trees. After planting of trees, nature also became favorable to us. As the Social Centre is taking care of the people, so also the rain decided to help us. (Dadabhau, backward class, small farmer).

Turning uncultivable land into productive farmland

Nearly twenty wells have got water for irrigation purposes. Previously, the same wells had water only for four to six months, but now they have water for eleven months. Our production has doubled. I had only three acres of my land under irrigation, but now I have twelve acres. Also the wasteland became productive. (Murlidhar, Maratha, medium irrigated farmer).

Employment opportunities

The nursery was started in the village and the poor, backward women were happy to get employment. There was only seasonal work and we faced a grave lack of employment in the days before WSD program. (Vimal, female, backward class, rainfed farmer).

Farming becomes profitable

Due to the contour bunding, the water in my well now lasts up to December. And there is water for drinking in summer also. All my family members work on the farm now and no one is going out for wage labor anymore. My wife helps me on the fields. On my irrigated land of four acres, I am planting onions, and on my rainfed land, I am planting pearl millet. (Dadabhau, backward class, small farmer).

Investment opportunities

We purchased cows for stall feeding. Previously, there were only eleven cows in the village and the milk collection was hardly 100 liters per day. Now, forty-one families

have cows and our milk collection is 1,300 liters per day. If there is any sickness, the doctor's treatment is available for cows. I am planning to sell my local cows and buy Jersey cows so that my income will increase even more. (Sahebrao, Maratha, medium irrigated farmer).

The Social Centre helped me to get a loan under a government scheme for backward class people. It was fo: Rs 5,000, and Rs 2,500 was a subsidy and the rest was to be repaid at 10 percent interest. Together with my savings, I leased part of the land inside the percolation dam area. The land is flooded only for a short period of the year during the rains. The ground is very good there and I opened a quarry. I employ ten to fifteen people from my group. I pay them regularly and pay minimum wages. For the moment, there isn't any profit in the mine as the investment costs were too high. But the investments will be recovered within two to three years and then there will be some profit in this quarry. (Chima, backward class, landless stone breaker).

Views on Effects of the Changes in Pimpalgaon Wagha

As a result of the WSD program, did the material benefits lead to changes in the social life of the village? Did it change the power structure in the village?

Gaining social recognition and self-respect

The worst thing in my life was that I was an educated man like the others. And still no one listened to me. I was nothing. Nobody was ready to help me. Now, I have got the courage to become a big man and my community has also grown with me. (Chima, backward class, landless stone breaker).

Taking part in village political decisionmaking

My involvement in the political activities of the village was very rare, but now I am aware of my rights as well as my duties. We villagers are coming together and are solving our own problems. It is a good sign of development. (Dattatray, Maratha, small rainfed farmer).

Reflections on the Future

What are the villagers' future plans, expectations, and aspirations for themselves, their children, and their village?

Education

Education facilities have to be developed in the village. The students have to walk to a neighboring village. And we usually do not allow our children to do so, especially the girls. (Bausaheb, disabled shopkeeper, Maratha, medium irrigated farmer).

Economic development

Instead of saving, today we are spending our money on our land. If we do not spend, development will not take place and the future of the family will be in trouble. I am sending only a little saving of Rs 30 per month to the post office. (Bansi, medium irrigated farmer).

Giving the educated a future in the village

Since I am an educated person in the village, my intention is to see that the people who have left the village should return. We should let them have employment here

in the village so that they need not migrate repeatedly for their daily bread. What we have faced, let the younger generation not suffer the same. (Anand, Maratha, irrigated farmer).

Spread the WSD program to other villages

They said that the progress achieved by us in Pimpalgaon Wagha is because it is a small village and there is unity among the villagers. It is not so in their villages. I told them that progress can be achieved in any village whether it is small or large. It does not make any difference. What is needed is their willingness to unite themselves and selfless leadership. At least two persons must be there to strengthen the unity among the villagers. Anyone willing to develop the village must show that by his behavior and clean character, so that the people believe that he is giving his selfless service for the good of the community. If people have trust in him, no one can stop progress in any field. (Raosaheb, Maratha, irrigated farmer).

Distributors of World Bank Publications

ARGENTINA Carlos Hirsch, SRL Galeria Guernes Florida 165, 4th Floor-Ofc. 453/465 1333 Buernos Aires

Oficina del Libro Internacional Alberti 40 1082 Buenos Aires

AUSTRALIA, PAPUA NEW GUINEA, FIJI, SOLOMON ISLANDS, VANUATU, AND WESTERN SAMOA D.A. Information Services 648 Whitehorse Road Mutcham 3132 Victoria

AUSTRIA Gerold and Co. Graben 31 A-1011 Wien

BANGLADESH Micro Industries Development Assistance Society (MIDAS) House 5, Road 16 Dharmondi R/Area Dhaka 1209

BELGIUM Jean De Lannoy Av. du Roi 202 1060 Brussels

BRAZIL
Publicacoes Tecnicas Internacionais
Ltda.
Rua Petxoto Gonude, 209
01409 Sao Paulo, SP

CANADA Le Diffuseur 151A Boul. de Mortagne Boucherville, Québec 148 5F6

Renouf Publishing Co. 1294 Algoria Road Ottawa, Ontario K1B3W8

CHINA
China Financial & Economic
Publishing House
8, Da Fo Si Dong Jie
Beging

COLOMBIA Infoenlace Ltda. Apartado Aereo 34270 Bogota D.E.

COSTA RICA, BELIZE, GUATE
-MALA, HONDURAS,
NICARAGUA, PANAMA
Chispas Bookstore
75 Meters al Norte del Hotel Balmoral
en calle 7
San Jose

COTED'IVOIRE
Centre d'Edition et de Diffusion
Africaines (CEDA)
04 B.P. 541
Abidian 04 Plateau

CYPRUS
Center of Applied Research
Cyprus College
6, Diogenes Street, Engomi
P.O. Box 2006
Nicosia

CZECH REPUBLIC
National Information Center
P.O. Box 668
CS-113 57 Prague 1

DENMARK SamfundsLitteratur Rosenoerns Allé 11 DK-1970 Frederiksberg C

EGYPT, ARAB REPUBLIC OF Al Ahram Al Calsa Street Carro

The Middle East Observer 41. Sherif Street Cairo

FINLAND Akateeminen Kirjakauppa P.O. Box 23 FIN-00371 Helsinki

FRANCE World Bank Publications 66, avenue d'Iéna 75116 Paris

GERMANY UNO-Verlag Poppelsdorfer Allee 55 53115Bonn

GREECE Papasotinou S.A. 35, Stournara Str. 106 82 Athens

HONG KONG, MACAO Asia 2000 Ltd. 46-48 WyndhamStreet Wintrung Centre 7th Floor Central, Hong Kong

HUNGARY Foundation for Market Economy Dombovan Ut 17-19 H-1117 Budapest

INDIA Aihed Publishers Private Ltd. 751 Mount Road Madras - 601 002

INDONESIA Pt. Indira Limited Jalan Borobud ur 20 P.O. Box 181 Jakar ta 10320

IRAN Kowkab Publishers P.O. Box 19575-511 Tehran

IRELAND
Government Supplies Agency
4-5 Harcourt Road
Dublin 2

ISRAEL Yozmot Literature Ltd. P.O. Box 56055 Tel Aviv 61560

R.O.Y.International P.O. Box 13056 Tel Aviv 61130

Palestinian Authority Middle East Index Information Services P.O.B. 19502 Jerusalem

ITALY Licosa Commissionaria Sansoni SPA Vicasella Duca Di Calabria, 1/1 Casella Postale 552 50125 Firenze

JAMAICA lan Randle Publishers Ltd. 206 Old Hope Road Kingston 6 JAPAN
Eastern Book Service
Hongo 3-Chome, Bunkyo-ku 113
Tokyo

KENYA
Africa Book Service (E.A.) Ltd.
Quaran House, Mfangano St.
P.O. Box 45245
Nairobi

KOREA, REPUBLIC OF Daejon Trading Co. Ltd. P.O. Box 34 Yeoeida Seoul

MALAYSIA University of Malaya Cooperative Bookshop, Limited P.O. Boy 1127, Jalan Pantai Baru 59700 Kuasa Lumpur

MEXICO INFOTEC Apartado Postal 22-860 14060 Tlalpart, Mexico D.F.

NETHERLANDS De Lindeboom/InOr-Publikaties P.O. Box 202 7480 AE Haaksbergen

NEW ZEALAND EBSCO NZ Ltd. Private Mail Bag 99914 New Market Auckland

NIGERIA University Press Limited Three Crowns Building Jericho Private Mail Bag 5095

NORWAY Narvesen Information Center Book Department P.O. Box 6125 Etterstad N-0602 Oslo 6

PAKISTAN Mirza Book Agency 65, Shahrah-e-Quaid-e-Azam P.O. Box No. 729 Lahore 54000

Oxford University Press
5 Bangalore Town
Sharae Faisal
P.O. Box 13033
Karachi-75350

PERU Editorial Desarrollo SA Apartado 3824 Lima 1

PHILIPPINES
International Book Center
Suite 720, Cityland 10
Condominium Tower 2
Ayala Avenue, H.V. dela
Costa Extension
Makati, Metro Marula

POLAND International Publishing Service UI. Piekna 31/37 00-577 Warszawa

PORTUGAL Livraria Portugal Rua Do Carmo 70-74 1200 Lisbon

SAUDI ARABIA, QATAR Jarir BookStore P.O. Box 3196 Riyadh11471 SINGAPORE, TAIWAN Gower Asia Pacific Pts Ltd. Golden Wheel Building 41, Kallang Pudding, #04-03 Singapore 1334

SLOVAK REPUBLIC Slovart G.T.G. Ltd. Krupiriska 4 P.O. Box 152 852 99 Bratislava 5

SOUTH AFRICA, BOTSWANA Oxford University Press Southern Africa P.O. Box 1141 Cape Town 8000

SPAIN Mundi-Prensa Li bros, S.A. Castello 37 28001 Madrid

Libreria Internacional AEDOS Consell de Cent, 391 08009 Barcelona

SRI LANKA & THE MALDIVES
Lake House Bookshop
P.O. Box 244
100, Sor Chittampalam A.
Gardiner Mawatha
Colombo 2

SWEDEN Fritzes Customer Service Regeringsgatan 1 2 S-106 47 Stockholm

Wennergren-Williams AB P.O. Box 1305 S-171 25 Solna

SWITZERLAND Labrairie Payot Case postale 3212 CH 1002 Lausanne

Van Diermen Editions Techniques P.O. Box 465 CH 1211 Geneva 19

TANZANIA
Oxford University Press
Maktaba Street
P.O. Box 5299
Dar es-Solaam

THAILAND
Central Books Distribution Co. Ltd.
306 Silom Road
Bangkok

TRINIDAD & TOBAGO, JAMAICA Systematics Studies Unit #9 Watts Street Curepe Trinidad, West Indies

UGANDA Gustro Ltd. 1st Floor, Room 4, Geogladis Chambers P.O. Box 9997 Plot (69) Kampala Road Kampala

UNITED KINGDOM Microinfo Ltd. P.O. Box 3 Alton, Hampshire GU34 2PG England

ZAMBIA University Bookshop Great East Road Campus P.O. Box 32379 Lusaka

ZIMBABWE Longman Zimbabwe (Pte.) Ltd. TourleRoad. Ardbennie



THE WORLD BANK

Headquarters

1818 H Street, N.W.

Washington, D.C. 20433, U.S.A.

Telephone: (202) 477-1234

Facsimile: (202) 477-6391

Telex: MCI 64:45 WORLDBANK

MCI 248423 WORLDBANK

Cable Address: INTBAFRAD

WAŞHINGTONDO

World Wide Web: http://www.worldbank.org

E-mail: books@worldbank.org

European Office

66, avenue d'Iéna .

75116 Paris, France

Telephone: (1) 40. 69. 30. 00

Facsimile: (1) 40. 69. 30. 66

Telex: 640651

Tokyo Office

Kokusai Building

1-1, Marunouchi 3-chome

Chiyoda-ku, Tokyo 100,

Japan

Telephone: (3) 3214-5001

Facsimile: (3) 3214-3657

Telex: 26838

EDI Learning Resources are designed for use in EDI courses and seminars. They discuss issues in economic development policy and lessons from experience in a way that can be understood by persons without extensive background knowledge or technical expertise. They will be of particular interest to readers concerned with public policy.

"The RAIN DECIDED TO HELP US" was the spontaneous reaction of a simple peasant farmer from Pimpalgaon Wagha when the authors asked him: "How has the watershed development program benefited you?" By this he meant that the people had learned how to harvest rainwater and were taking full advantage of rain that would previously have run out of the village, leaving little benefit in its wake. Despite drought, the villagers could now save their crops and have sufficient water for drinking. Drought no longer meant despair. Implicit in the farmer's response was his belief that nature had blessed their efforts and hard work.

0077-3

Internal Documents Unit, H B1-151

