



Evaluation

Farm Women in Development

– Impact Study of Four Training
Projects in India



Danida Evaluation

Farm Women in Development

Impact Study of Four Training
Projects in India

Main Report

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List of Contents

List of Tables	6
List of Figures	8
Preface	9
Acknowledgements	10
Abbreviations, acronyms and Indian terms	11
Executive summary	13
Chapter 1 Introduction	1
1.1 The projects	19
1.2 The evaluation	20
1.3 The report	21
Chapter 2 The four projects: history, objectives and main activities	23
2.1 WYTEP	25
2.2 TANWA	27
2.3 TEWA	28
2.4 MAPWA	29
Chapter 3 Approach and method	31
3.1 Conceptual framework	31
3.2 Methodological problems	33
Chapter 4 National and state contexts	35
4.1 National context	35
4.2 The states	38
Chapter 5 Implementation: achievements and problems	41
5.1 Achievements and costs	41
5.2 Agricultural extension policy and approach	44
5.3 Institutional versus village-based training	46
5.4 The role of Danida advisers	47
5.5 Integration into the Departments of Agriculture	48
5.6 Other issues	49
Chapter 6 Outcome and impact: economic benefits	51
6.1 Profile of trained farm women	51
6.2 Adoption of skills and technologies	55
6.3 Economic benefits of new practices	57
6.4 The role of Farm Women Groups and Self-Help Groups	61
6.5 Economic status of households	62
6.6 Differences in outcome and impact	63
6.7 Concluding remarks	66

Chapter 7	Outcome and impact: empowerment	69
7.1	Daily activities and workload	69
7.2	Labour participation in agriculture and the gender division of labour	69
7.3	The gender division of labour in the household	70
7.4	Workload and choice	70
7.5	Agency and choice	70
7.6	Women's changing role in decision-making	71
7.7	Self-confidence in farming activities and self-esteem	72
7.8	Changes in social relationships; perceptions on changes of status	73
7.9	Mobility, going out, courage to speak to outsiders	73
7.10	Caste barriers	73
7.11	The articulation of needs and interests; demanding access to services	74
7.12	Literacy and perceptions on education	75
7.13	The formation of women's groups and collective agency	75
7.14	Political awareness and representation	78
7.15	Disempowerment	78
7.16	Concluding remarks	79
Chapter 8	Impact: institutions and policies	83
8.1	Impact on Departments of Agriculture and extension policies	83
8.2	Impact on other projects and programmes	84
8.3	Impact on training centres	85
8.4	Village-level institutions	85
Chapter 9	Comparative perspectives	87
9.1	Common concerns	88
9.2	Differences	88
9.3	Impact in terms of empowerment	89
9.4	Challenges	90
Chapter 10	Conclusions	91
10.1	Relevance	91
10.2	Effectiveness	91
10.3	Efficiency	93
10.4	Impact	94
10.5	Sustainability	97
10.6	Summary of main conclusions, lessons and recommendations	97
10.7	Main conclusions	97
10.8	Main lessons	99
10.9	Main recommendations	100
10.10	Concluding remarks	100
References		105

Annex 1:	Terms of Reference	108
Annex 2:	Main agricultural skills taught by the projects	115
Annex 3:	A note on empowerment	118
Annex 4:	Study design and methods	123
Annex 5:	Main questionnaire	131
Annex 6:	Data on economic, agricultural and human development in India	151
Annex 7:	Profile of other projects for comparison	154

List of Tables

Table 2.1	Danish grants for the four projects	5
Table 2.2	Salient features of the four projects	7
Table 4.1	Area and population of the four states, 1981-2001	20
Table 5.1	Achievements: districts covered and female extension staff inducted	23
Table 5.2	Number of farm women directly trained	25
Table 5.3	Efficiency – cost per trained farm woman	26
Table 6.1	Distribution of farm women households by landholding size	33
Table 6.2	Social status of farm women	34
Table 6.3	Indicators of material wealth of households of trained farm women	36
Table 6.4	Average No. of programmes attended and methods learnt, tried out and still used	37
Table 6.5	Role of farm women in decision making about introduction of new technologies on the farm	38
Table 6.6	Changes in cost of cultivation after training	40
Table 6.7	Use of chemical fertilizers after training	41
Table 6.8	Use of farmyard manure after training	41
Table 6.9	Use of labour in farming after training	42
Table 6.10	Husbands' views: Was the wife's training beneficial to the family?	42
Table 6.11	Economic activities of Farm Women Groups/ Self Help Groups	43
Table 6.12	Improved economic status since the training	44
Table 6.13	Improvement in economic status due to training or other factors	45
Table 6.14	TEWA (Orissa): Factors contributing to success and failure at village level	47
Table 7.1.	Farm women's perceptions of changes in self confidence and decision making	53
Table 7.2.	Percentage of women reporting playing a major role in decision making by project and area of decision making	54
Table 7.3.	Empowerment - success stories and failures: Underlying factors	62

Table 1	Annex 4	Study design, actual
Table 2	Annex 4	Sample districts
Table 3	Annex 4	Sample of farm women by phases
Table 4	Annex 4	Sample status of farm women by project
Table 1	Annex 7	Economic development indicators for India, 1980-2002
Table 2	Annex 7	Rural Poverty Trends in India
Table 3	Annex 7	Indicators of agricultural development in India 1980-81 to 2001-02
Table 4	Annex 7	Operational holdings and operated area in India during 1980-81 and 1990-91
Table 5	Annex 7	Literacy rate in India 1981-2001

List of Figures

Figure 2.1	The four project states	6
Figure 4.1	Literacy rate in India 1981-2001	19
Figure 4.2	Rural literacy rates in the four states in 1981 and 2001	21
Figure 4.3	Per capita net state domestic product for the four states	21
Figure 4.4	Human Development Index for the four states, 1981 and 1991	22
Figure 4.5	Gender Disparity Index for the four states, 1981 and 1991	22
Figure 6.1	Annual household income of farm women	35
Figure 6.2	Literacy status of farm women	36
Figure 6.3	Relationship between literacy and joint decision making about introduction of new new technologies on the farm	39
Figure 1	Annex 4 Karnataka State, districts and sample taluks	

Preface

This report presents the findings of an evaluation of four agricultural training projects for women in four Indian states: WYTEP in Karnataka, TANWA in Tamil Nadu, TEWA in Orissa, and MAPWA in Madhya Pradesh. During a period of two decades Danida has supported the projects with a total of DKK 279 million.

When the first project was started in Karnataka in 1982, it was a pioneering approach to direct the support towards women instead of men. Before this time there were only scattered attempts in India to target women in agricultural training and extension. The objective of the projects was to enhance the performance of farm women from small and marginal farms in their role as agricultural producers in order to increase productivity, income and food security. In addition to the main objective, the projects have also aimed to strengthen the trained farm women in their social role, or in other words to contribute to women's empowerment.

The fact that the projects broke with traditions for support to agricultural development by targeting women makes it interesting to assess achievements 20 years later. The simultaneous support in four different states based on more or less the same approach invites a comparative perspective, and because the projects have been running for so long it is possible to attempt an assessment of the impact. On this background Danida decided to undertake an evaluation, which focuses on the impact of the projects, while also addressing the usual evaluation criteria of relevance, effectiveness, efficiency and sustainability. Both intended and unintended impact is investigated, and both the impact in terms of economic benefits and in terms of women's empowerment is assessed.

The Danish Institute for International Studies carried out the evaluation, and the team of eight people comprised researchers and consultants from Denmark, India, UK, and the Netherlands. Ten Indian research assistants supported the team. Fieldwork was carried out from November 2002 to January 2003.

In addition to this main report, five project reports have been produced. While the main report brings together the principal findings, it cannot adequately reflect all the details and contextual nuances of the project reports. The interested reader is therefore referred to the project reports included on the CD found attached to this report. All reports can be found and ordered in printed form from www.evaluation.dk.

Although report drafts have been discussed with Danida before the publication, responsibility for the contents and presentation of findings and recommendations rests solely with the evaluation team. The views and opinions expressed in the report do not necessarily correspond to the views of Danida or government partners in India.

Copenhagen, May 2004

Danida's Evaluation Department

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This report presents the results of an evaluation/impact study of four training projects for farm women in India: WYTEP in Karnataka, TANWA in Tamil Nadu, TEWA in Orissa and MAPWA in Madhya Pradesh. The study was carried out by a team of independent researchers and consultants:

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During fieldwork the team was assisted by ten research assistants: Susanta K. Barik, Premananda Biswal, Ajita Priyadarshini De, Seema Jain, S. Jyothis, C. Charles Nelson, S. Paul Pandian, S. Padmavathy, S.G. Shashikala and H.S. Subramanya.

The report was edited by Steen Folke, who also wrote most of the chapters. However, K.N. Ninan and Jayalakshmi Indiresan contributed parts of Chapters 4, and Welmoed Koekebakker drafted Chapters 7 and 9 and a small section of Chapter 3. Annex 2 was written by N. Narasimha, Annex 3 by Naila Kabeer, most of Annex 6 by K.N. Ninan and most of Annex 7 by W. Koekebakker. Robert Parkin copy edited the report.

In addition to this main report, the evaluation consists of five project reports, namely:

- No. 1. Evaluation of Training and Extension System, by N. Narasimha and H.S. Subramanya.
- No. 2. Impact Study of WYTEP, by K.N. Ninan and Kripa Ananth Pur.
- No. 3. Impact Study of TANWA, by Jayalakshmi Indiresan.
- No. 4. Impact Study of TEWA, by Sandhya Rani Mohanty.
- No. 5. Impact Study of MAPWA, by Jayalakshmi Indiresan.

The contribution of numerous Indian officers and staff members, other key informants, and not least the numerous patient farm women (and husbands), who were interviewed for this study, is gratefully acknowledged.

Copenhagen, March 2004

Steen Folke
Team leader

Abbreviations, acronyms and Indian terms

AAO	Assistant Agricultural Officer
Ac.	Acres
<i>Adivasi</i>	Tribal person (see also Scheduled Tribe)
ADO	Agricultural Development Officer
<i>Agarbati</i>	Incense
ANTWA	Andhra Pradesh Training of Women in Agriculture
AO	Agricultural Officer
AP	Andhra Pradesh
CAST	Change Assessment and Scoring Tool
CSO	Central Statistical Office
DAC	Development Assistance Committee
<i>Dalit</i>	Person of 'unclean'/oppressed caste (see also Scheduled Caste)
Danida	Danish International Development Assistance
DATC	District Agricultural Training Centre
DKK	Danish kroner
DoA	Department of Agriculture
Fig.	Figure
FTC	Farmer Training Centre
FW	Farm Woman/Women
FWG	Farm Women Group
FWT	Farm Women Training (projects)
GAD	Gender and Development
GES	General Extension System
GoI	Government of India
<i>Gram Panchayat</i>	Village Council
<i>Hobli</i>	Sub-division of taluk
IGA	Income-Generating Activity
INR	Indian Rupees
JDA	Joint Director of Agriculture
LAO	Lady Agricultural Officer
LVAW	Lady Village Agricultural Worker
MAPWA	Madhya Pradesh Women in Agriculture
MFA	Ministry of Foreign Affairs
MP	Madhya Pradesh
MS	Mahila Samakhya (Education for Women's Equality)
NADEP	Narayan Dev Rao Pandari (inventor of compost method)
NGO	Non-Governmental Organisation
No.	Number
OBC	Other Backward Classes
OECD	Organisation for Economic Cooperation and Development
<i>Panchayat</i>	Elected council (at village, taluk or district level)
<i>Panchayati Raj</i>	Legislation about decentralisation to panchayats
PRA	Participatory Rapid Appraisal
<i>Purdah</i>	Seclusion
RAEO	Rural Agricultural Extension Officer
Rs.	Rupees
<i>Sangha</i>	Association

<i>Sarpanch</i>	Village leader/chairperson of Gram Panchayat
<i>Sayogini</i>	Female village level functionary
SC	Scheduled Caste (see also Dalit)
SHG	Self-Help Group
ST	Scheduled Tribe (see also Adivasi)
<i>Taluk</i>	Sub-division of district
T&V	Training and Visit
TANWA	Tamil Nadu Women in Agriculture
TEWA	Training and Extension for Women in Agriculture (Orissa)
TN	Tamil Nadu
TWA	Training of Women in Agriculture (project in Gujarat)
UNDP	United Nations Development Programme
UP	Uttar Pradesh
VAW	Village Agricultural Worker
VBT	Village-Based Training
WID	Women in Development
WYTEP	Women and Youth Training and Extension Project (Karnataka)

Executive summary

Introduction

The evaluation assesses four more or less similar training projects for farm women, funded by Danida and implemented in four different Indian states: WYTEP in Karnataka, TANWA in Tamil Nadu, TEWA in Orissa and MAPWA in Madhya Pradesh. Whereas the three former projects have been under implementation for 15 to 20 years, MAPWA was initiated in the mid-1990s. While TANWA and TEWA were terminated in March 2003, WYTEP and MAPWA will continue until 2005 (May and December, respectively). The total Danida funding for the four projects has amounted to DKK 279 million, but this has been very unevenly distributed, with 44% to WYTEP, 32% to TANWA, 13% to TEWA, (FWGs) and 11% to MAPWA (SHGs).

Although the modalities have varied somewhat from project to project, they have all offered training in simple agricultural skills and technologies to farm women. The main objective of all the projects is to enhance the performance of farm women from small and marginal farms in their role as agricultural producers in order to increase productivity, income and food security. In addition to the main objective, the projects have also aimed to strengthen the trained farm women in their social role, in other words to contribute to women's empowerment. In some of the projects and in the more recent phases this has been included among the stated objectives. In the last five to –seven years this objective has been pursued along with the main objective through the formation of Farm Women Groups or Self-Help Groups.

Achievements

The most important achievement with respect to all the projects has been the primary training of women from small and marginal farms. Along with the directly trained women, a large group have been trained as co-farm women, but this varies greatly from project to project. The TEWA approach has implied direct training and extension – by Lady Village Agricultural Workers – provided to a very large number of women in each village, in some cases more than one hundred. But the extent, intensity and quality of this training has apparently varied greatly. At the other end of the scale, WYTEP has concentrated on providing direct institutional training to a much smaller number of women, and while these women have also disseminated some of their skills to others, the project has been less concerned to systematise and support this endeavour. TANWA and MAPWA, by contrast, have developed a systematic approach to the selection of farm women, and TANWA in particular has built up an effective system for the training of “co-farm women”.

The four training projects for farm women were really pioneering in practising large-scale agricultural training and extension targeted at women, particularly from small and marginal farming households. In several other respects the projects were rather slow in adopting new approaches to agricultural extension. The Training & Visit approach generally dominated over the projects' extension activities until late in the 1990s. But the introduction of Farm Women Groups in the second half of the 1990s constituted a major break with the past and provided a better framework for the extension activities.

Moreover, many of these groups widened the scope of their work by taking up savings and credit and engaging in other income-generating activities.

One of the greatest achievements in the case of all the projects has been to create a number of regular posts in the General Extension System (GES) for female staff. Until the advent of these projects, the GES staff in all the states were overwhelmingly (>99%) male, and the GES basically catered exclusively to the needs of male farmers. All the projects have aimed at integrating female staff into the Departments of Agriculture and mainstreaming gender issues within the GES. Given the complete male dominance in these departments, this has not been an easy task. The new all-India agricultural extension policy framework, in combination with the state-level policies regarding according a priority to the recruitment of female staff, will go a long way to ensure that the female staff inducted under the four projects will be kept in the Departments of Agriculture and their numbers increased after the projects have been terminated.

Outcome and impact: economic benefits

In all the projects the training of farm women has focused on a range of simple agricultural skills and technologies. While there has been some variation in their number as well as the exact skills and technologies, the most important have been more or less the same across all the projects in focusing primarily on crop production. The most important skills are soil testing, soil preparation, seed selection, seed testing, seed treatment, compost preparation, organic pesticides and pest control.

More than two-thirds of the farm women interviewed report improvements in their economic status after the training. There is, however, a striking difference between WYTEP, where only half report improvements, and the other three projects, where three-quarters or more report improvements. In around 95% of the cases in all four projects, the economic improvements are linked to the training. This is highly significant and a very satisfactory result. For about two-thirds of cases, however, training is just one of several factors. This is only natural, and in some cases, no doubt, other factors have been more important. But it is notable that for one third of the women the training is stated to be the only factor behind the improvement. There are interesting differences between the projects in this respect. For TEWA and MAPWA almost half of the women ascribe economic improvement exclusively to the training they received, whereas for TANWA it is only 30% and for WYTEP only 10%. This reflects, among other things, differences in the levels of development. In Orissa and Madhya Pradesh the projects have been particularly important in economic terms because in these states there are fewer alternative economic opportunities for poor farm women and their households.

There is no doubt that, generally speaking, the trained farm women have benefited from the training and the adoption of a range of the agricultural skills they have learnt. This has led to increases in yields of the main crops, savings on chemical fertilizers and a number of other improvements in their agricultural practices. In some cases increased production has led to a greater marketable surplus, in others to improved consumption and greater food security. About one third of the farm women in the sample were found to be members of FWGs/SHGs. For these women the groups have provided opportunities for collectively pursuing agricultural activities or other income-generating activities, as well as becoming involved in credit and savings operations. All this has had a positive impact on their economic situation.

However, the study has revealed that there are important differences between the projects in terms of reaching the target group. TANWA and TEWA were found to be well targeted, with more than three-fourths of the sample belonging to the target group of small and marginal farm households. In contrast WYTEP had almost half and MAPWA more than half of the sampled farm women falling outside the target group, primarily because of larger land holdings. This is a matter for serious concern. Moreover, the analysis has shown that in a number of areas WYTEP has had less impact than the other three projects.

Outcome and impact: empowerment

A majority of women report that since the training they have a greater role in decision-making. Two out of three women mention having a greater say in farm-related matters and in family matters than before. Their role in taking decisions about introducing new technologies, starting a new enterprise or buying assets has increased considerably. The figures suggest that their influence in farm matters goes more or less hand in hand with an increase in their influence over family matters.

When asked whether they feel more self-assured than before, women answer by a wide majority that they feel confident about their new responsibilities, which involve trying out crops, buying agricultural implements and starting new techniques. In addition, they have increased their self-esteem in a more general sense: most women say that participating in the training has boosted their self-respect. Half of the 545 women interviewed reported that their relationships with their husbands had changed.

Group formation was not part of the project approach at the outset, but was generally included as an essential component of the recent phase of the projects. Thousands of groups have been formed as part of the four projects, some of which have now ceased operations, while others have been flourishing for years. The overall extent of the participation of trained farm women in women's groups is rather limited: of the women interviewed in the survey, only one in three is member of a FWG/SHG, and the team found that in many villages there is no SHG at all. There are considerable differences both between the states and within them. In WYTEP, group formation has been considerably less successful than in the other three states due to poor follow-up by agricultural officers, with the effect that many groups are now defunct; the TANWA groups have been the most vibrant, while TEWA and MAPWA present a very mixed picture.

While building women's capacities as skilful and self-confident farm women, the projects have brought about some degree of gender transformation at the household level. To a limited extent they have triggered mutually supportive social processes, and in exceptional cases they have contributed to strategic change.

Impact: institutions and policies

It is quite clear that the projects have had an impact on a number of institutions in the four states. They have also influenced policies at both the state and national levels. First of all, the projects have had a significant impact in the Departments of Agriculture (DoAs) in Karnataka, Tamil Nadu, Orissa and Madhya Pradesh. In all the states a new

cadre of female extension workers has been built up. At the same time, the projects have contributed to mainstreaming gender issues in the DoAs.

At the national level, a new “Policy Framework for Agricultural Extension” was adopted in 2001. This has a whole section entitled “Mainstreaming Women in Agriculture”. One of its concrete objectives is “increasing the proportion of trained female extension workers to gradually ensure that at least one third of all extension workers are women”. Interviews with officers in the Ministry of Agriculture have confirmed that the four Danida-supported projects have played an important role as sources of inspiration for this part of the new extension framework.

The Danida-supported projects have been a source of inspiration for several other more or less similar projects in different parts of India. These include two large, Dutch-supported projects, namely “Training of Women in Agriculture” (Gujarat) and “Andhra Pradesh Women in Agriculture”. Direct influence can also be traced in the Government of India’s “Central Sector Scheme of Women in Agriculture”.

Conclusions

Relevance

In a general sense the projects have clearly been relevant to the needs of farm women from small and marginal farms and their families. The agricultural methods and technologies pursued through the project are appropriate to the needs of the target group. Most of them are low-cost or no-cost (disregarding opportunity costs) and environment-friendly, and some are even cost-saving. While the majority increase work loads, some reduce them for farm women. However, the rather standardised technological “package” and its general top-down presentation somewhat reduces its relevance. A more differentiated approach based on individual and contextual need assessments would be preferable.

Effectiveness

Generally the projects have fulfilled their objectives. There is no doubt that the majority of the farm women who have undergone training have benefited from this. They were able to recall the most important skills they had learnt, and most of them had tried out new methods in practice, such as seed selection and treatment, compost-making, vermicomposting, using bio-pesticides, etc. This has resulted in higher yields and savings in respect of both chemical fertilizers and pesticides. At the same time the trained farm women have acquired more self-confidence and recognition in their village lives.

The effectiveness, however, has been hampered by excessive reliance on the Training & Visit approach to agricultural extension, with its narrow (crop) and individual focus and rather rigid top-down propagation of pre-determined messages. Only in recent years and in varying degree has this approach given way to more participatory and broad-based extension methods focusing on groups of farm women. With the possible exception of TEWA, the projects have generally prioritised training over extension. A more balanced effort would probably have made them more effective.

Efficiency

Based on rough calculations, TEWA appeared to be the most cost-efficient of the projects and WYTEP clearly the least cost-efficient. This is in line with an intuitive understanding of the differences in approach, where TEWA's grassroots level, village-based approach, stands in contrast to WYTEP's costly institutionalised training approach. TANWA was almost as cost-efficient as TEWA, primarily owing to its very effective training of a large number of co-farm women. Hence it can be concluded that in relative terms TEWA and TANWA have been highly cost-efficient, MAPWA relatively cost-efficient and WYTEP not at all. A very rough estimate will give the cost per trained farm woman as approximately 100 DKK for the three projects and several times more for WYTEP.

Impact

In a general sense the projects have fulfilled their main objective, namely to train farm women in a range of simple agricultural skills so as to make them more productive and hence improve their livelihoods. There is no doubt that yields have been improved by some of these methods, such as seed selection and treatment. While increased production in some cases has entailed increased consumption and better food security, in other cases there has been a surplus to sell in the market and generate an income. The field survey clearly showed that most trained farm women had cut down on the use of chemical fertilizers, substituting compost or other types of organic manure for the chemicals. In this way they have both made a substantial saving on the costly chemicals and benefited the environment.

One third of the trained farm women in the sample were found to be members of a Farm Women Group or Self-Help Group. In many cases this has provided new opportunities for income-generating activities, whether linked to the agricultural training or of a completely different nature. Such activities have been particularly important under TANWA because of the good opportunities in Tamil Nadu and the literacy and entrepreneurship of the TANWA women.

In terms of reaching the target group, TANWA and TEWA have fared much better than WYTEP and MAPWA. The target group – small and marginal farm households – constitutes 82% of the TEWA sample and 76% of the TANWA sample, but only 53% of the WYTEP sample and a paltry 40% of the MAPWA sample.

All the projects have had an impact on India's national extension policies. For the first time on a large scale they have addressed the needs of women in agriculture.

Sustainability

The approach to agricultural training and extension developed over the years in the four projects must be regarded as sustainable in more than one sense. First of all, most of the skills taught are simple and low-cost, no-cost (disregarding opportunity costs) or even cost-saving as well as environmentally sound. Hence they can be practised and disseminated even in the long run.

All the projects have trained and employed female extension staff members, so that for the first time in the four states (and India) there is a substantial female cadre experienced in attending to the needs of women in agriculture.

The formation of Farm Women Groups and Self-Help Groups has contributed greatly to the continued viability of some of the income-generating activities, as well as providing a forum for learning, innovating and extending mutual support among their members. Until now most of the groups have been relatively dependent on the support of the female extension staff. It remains to be seen how they fare in the future with reduced support or – if that happens – no support.

Concluding remarks

Over the years the approach followed in the projects has evolved from the narrow, rigid, top-down Training & Visit system towards a more broad-based, participatory and group-focused approach. However, this process has been rather slow, and the projects in this respect have merely followed the general trend in the General Extension System. To some extent the projects have learnt from each other, but it is noticeable that the highly systematic approach to the training of co-farm women under TANWA has not been taken up by the other projects. WYTEP pioneered the whole approach, and TANWA, TEWA and MAPWA successively learnt – positively and negatively – from WYTEP. In particular, the three younger projects opted for a village-based training approach in contrast to the institutional approach pursued by WYTEP. In view of the drawbacks of the institutional approach – highlighted by this evaluation, but known for years and also taken up in previous reviews – it is strange that WYTEP has continued to provide the basic training in training centres. Apparently WYTEP has not been able to learn from itself, or maybe it is simply a case of vested interests created by the training centres being built and staffed.

The distinguishing feature of these four projects is their combination of the agricultural training and extension objectives and the objectives linked to women's empowerment. Regarding empowerment, it is clear that much more could have been done if this objective had been explicitly addressed earlier and pursued more vigorously, for example, through group formation. But in spite of the limitations in the approach, it is noteworthy that all four projects have contributed to women's empowerment on a scale that makes this result at least as significant as the results linked to agricultural training.

Chapter 1. Introduction

1.1 The projects

This evaluation deals with four more or less similar training projects for farm women, funded by Danida and implemented in four different Indian states, WYTEP in Karnataka, TANWA in Tamil Nadu, TEWA in Orissa and MAPWA in Madhya Pradesh. The three former projects have been under implementation for 15 to 20 years, whereas MAPWA was initiated in the mid-1990s. While TANWA and TEWA were terminated in March 2003, WYTEP and MAPWA will continue for another two years. The total Danida funding for the four projects has amounted to DKK 279 million, but this has been very unevenly distributed, with 44% to WYTEP, 32% to TANWA, 13% to TEWA and 11% to MAPWA.

All the projects have been implemented through the Directorate of Agriculture in the respective states as part of their General Extension System (GES). In an Indian context, the projects have been innovative in so far as they have, for the first time, addressed the training and extension needs of women in agriculture on a large scale. In fact women play a very important role in Indian agriculture: some estimates indicate that as much as 70% of all agricultural operations are carried out by women. This, of course, varies with the state, with farming systems and even with cultural factors (caste, tribe), but the important contribution made by women is beyond doubt. Nevertheless, men remain the predominant decision-makers in agricultural operations, and until the first of these projects started (WYTEP in 1982), all agricultural training and extension services were targeted at male farmers.

Although the modalities have varied somewhat from project to project, they have all offered training in simple agricultural skills and technologies to farm women, with a focus on women from small and marginal farms. The basic training sessions have generally been of around five days' duration, and in three of the projects this has taken the form of village-based training. In WYTEP, however, the training has been conducted in District Agricultural Training Centres, and the basic course has been of ten days duration (only recently reduced to six days). In all the projects the emphasis has been on simple skills and technologies such as seed selection and treatment, making compost, use of bio-fertilizers and bio-pesticides, post-harvest storage etc. The methods taught are low in cost and environment-friendly, and some of them reduce both costs and environmental damage, for example, through reduced use of chemical fertilizers and pesticides. Most of the methods have focused on crop production, but allied activities such as horticulture, sericulture and animal husbandry have also been included in the training. An overview of the main agricultural skills taught under the projects is provided in Annex 2.

Through most of the history of all the projects, the approach has been based on the Training & Visit (T&V) extension framework, which has dominated the GES in all the states. This system focuses on individual farmers and tends to use a top-down approach with standardised messages. Only in the most recent years has there been a gradual shift towards a more broad-based, participatory and group-focused extension approach.

The main objective of all the projects is to enhance the performance of farm women from small and marginal farms in their role as agricultural producers in order to increase

productivity, income and food security. The exact formulation of the objectives has varied from project to project and from one phase to the other. In addition to the main objective, the projects have also aimed to strengthen the trained farm women in their social role, in other words to contribute to women's empowerment. In some of the projects, and in the more recent phases, this has been included among the stated objectives. In the last 5 to 7 years this objective – along with the main objective – has been pursued through the formation of Farm Women Groups or Self-Help Groups.

1.2 The evaluation

The main purpose of the evaluation is to document the outcomes of the fairly large amount of money spent on these four projects over the past twenty years. However, it is also important to make the evaluation feed into a learning process. In the case of the two projects that are continuing, in Karnataka and Madhya Pradesh, the lessons that have been learnt can be applied immediately. They are also relevant in the case of the two recently terminated projects, because the Departments of Agriculture in Tamil Nadu and Orissa plan to continue with training and extension activities targeted at farm women. Moreover, such a massive effort to target women in their role as agricultural producers (in the widest sense) will also have produced lessons that can be relevant for similar interventions elsewhere, including interventions linked to agricultural sector programmes aiming at supporting farm women.

Like other evaluations, the present one addresses all the five main evaluation criteria recommended by OECD/DAC (and Danida), namely relevance, effectiveness, efficiency, impact and sustainability. But because of its special focus on the impact of the projects, this evaluation mainly takes the form of an impact study. In a sense, impact – and, linked to this, sustainability – is the most important criterion for evaluating the results of a development project. What came out of it all? Did it produce significant social change? Did it, for instance, contribute to poverty reduction or to women's empowerment? These questions are particularly pertinent when we are dealing with projects that have been under implementation for a long time and are about to be or have been terminated.

Impact is primarily taken to mean the changes in people's lives and livelihoods brought about by the projects, in terms of both economic and social changes. In principle changes can be positive as well as negative, and moreover this evaluation is not restricted to looking at the impact in relation to stated objectives, but also at unintended consequences. The main focus, of course, is on the farm women, but also on their families. A secondary issue is the projects' impact in terms of institutional and policy changes (in India). The Terms of Reference (Annex 1) contains a list of the issues dealt with in this evaluation.

An interesting dimension in the evaluation is the comparative perspective. Although the projects are in many respects similar, there are also important differences. These differences partly relate to the formulation of the projects' objectives, and partly also to the different phases and, more importantly, the modalities. These differences, which to some extent reflect a learning process from one generation of projects (and phases) to the next, have a bearing on effectiveness, efficiency and impact. Important concrete implementation issues are: training in centres versus training in villages; top-down versus more participatory approaches; methods of formation of women's groups and dissemination of

skills; and the level and integration of female extension officers in the GES. In all these respects both the projects and the phases differ.

At the same time there are significant differences in the context, which have consequences for the impact. Karnataka and Tamil Nadu are in many ways more developed than Orissa and Madhya Pradesh. The projects' target groups are generally poorer, and literacy among women lower, in the latter two states. These differences are investigated as a key background for understanding impact as something that is a product of both intervention and context.

One of the distinguishing features of this evaluation/impact study is the order and kind of fieldwork. The evaluation team consisted of eight researchers (three from Europe and five from India) and ten research assistants (all Indian). The fieldwork, which started with a week-long methodology-cum-planning workshop, lasted about three months, from November 2002 to January 2003. The researchers spent one to two months and the research assistants on average two months doing actual fieldwork. Details of the approach and method used can be found in Chapter 3 and Annex 4.

1.3 The report

This volume constitutes the main report of the evaluation/impact study with appendices. In addition there are five project reports, one each on WYTEP, TANWA, TEWA and MAPWA, and a special report containing an evaluation of the agricultural training and extension system across the four projects. Obviously these reports are much more detailed than this main report, and those who want detailed documentary evidence have to consult these.

The main report is structured as follows. After this introduction (Chapter 1), the second chapter presents the main features of the four projects. Chapter 3 outlines the approach and method followed. Chapter 4 is devoted to the national and state contexts of the projects. A number of implementation issues are discussed in the fifth chapter. Chapters 6 and 7 on outcome and impact – in terms of economic benefits and women's empowerment, respectively – are the largest and most crucial chapters. They are followed by Chapter 8, which deals with the impact on institutions and policies, and Chapter 9, providing comparative perspectives (with other more or less similar projects). The concluding Chapter 10 addresses the main evaluation criteria: relevance, effectiveness, efficiency, impact and sustainability.

Chapter 2. The four projects: history, objectives and main activities

Although the four projects are in many ways similar, their approaches differ in a number of ways. Moreover, they have different histories and are located in four different Indian states:

- Women and Youth Training and Extension Project (WYTEP), Karnataka. Phase I: 1982-89, Phase II: 1990-2000, Phase III: 2000-2005.
- Tamil Nadu Women in Agriculture (TANWA). Phase I: 1986-93, Phase II: 1993-2003.
- Training and Extension for Women in Agriculture (TEWA), Orissa. Phase I: 1987-94, Phase II: 1995-2003.
- Madhya Pradesh Women in Agriculture (MAPWA). Phase I: 1993-2001, Phase II: 2002-06 (shortened to 2005).

Table 2.1 shows the Danish grants for the different phases of the projects. Figure 2.1 shows the location of the four project states in India.

Table 2.1. Danish grants for the four projects (in million DKK and per cent)

Project/state	Phase I	Phase II	Phase III	Total	Per cent
WYTEP Karnataka	35.5	59.7	28.3	123.7	44%
TANWA Tamil Nadu	30.0	58.1		88.1	32%
TEWA Orissa	13.3	23.7		37.0	13%
MAPWA Madhya Pradesh	12.6	17.5		30.1	11%

The total Danish grant for the four projects combined, covering the years 1982-2005, will have been DKK 278.9 million. Three-quarters of this amount has been allocated to the two South Indian projects, WYTEP and TANWA, whereas the two North Indian projects, TEWA and MAPWA, have shared the last quarter. The high figure for WYTEP is partly due to the fact that this project included the construction of sixteen training centres at district level. In addition to the amounts shown, the state governments have contributed a certain, much more limited amount to the projects, especially in the most recent years as part of a phasing-out strategy. Their most important contribution has been gradually taking over the salaries of the female agricultural extension staff who have been recruited and trained under the projects.

In 2003, the Government of India decided to stop receiving development aid from small bilateral donors, including Denmark. As a consequence, all Danish aid will be phased out by the end of 2005. This will imply a shortening by one year of MAPWA's Phase II and a reduction in spending for both WYTEP and MAPWA. It is estimated that disbursement for WYTEP's Phase III will be only DKK 17.8 million and for MAPWA's Phase II only DKK 11.4 million.

Figure 2.1. The four project states



Table 2.2 presents some of the main features of the four projects at a glance. In terms of training approach, while WYTEP has continued to rely on institutional training, the other three projects have opted for village-based training. All four projects have relied on the Training & Visit approach to extension, but in recent years they have gradually shifted to more participatory methods focused on Farm Women Groups/Self-Help Groups. For the first time in the respective states, all projects have introduced female staff on a major scale in agricultural training and extension. These have ranged from Agricultural Officers (Farm Women) with a degree in agriculture in TANWA to grassroots “Lady Village Agricultural Workers” with limited training in TEWA. The number of farm women trained includes only those who have received direct training in WYTEP, TANWA and MAPWA. For WYTEP and MAPWA the figures do not include those trained in the recently started phases (Phases III and II, respectively). The huge numbers indicated for TEWA must be taken with a pinch of salt. They are the result of the grass-

roots approach in TEWA, but the amount of training received by farm women varies a great deal.

Table 2.2. Salient features of the four projects

Project/state	Period	Training Approach	Extension approach	Main extension staff	Farm women trained
WYTEP Karnataka	1982-2005	Institutional training	Training & Visit, recently Farm Women Groups	Assistant Agricultural Officer – Farm Women	55,000
TANWA Tamil Nadu	1986-2003	Village-based training	Training & Visit, recently Farm Women Groups	Agricultural Officer – Farm Women	99,000
TEWA Orissa	1987-2003	Village-based Training	Training & Visit, recently Farm Women Groups	Lady Village Agricultural Worker	478,000
MAPWA Madhya Pradesh	1993-2005	Village-based training	Training & Visit, recently Farm Women Groups	Agricultural Development Officer – Farm Women	13,000

The following sections give a more detailed account of the main features and history of each of the four projects.

2.1 WYTEP

In 1982 WYTEP was started in Karnataka, the first state in India to receive development assistance from Denmark (in the 1960s). Twenty years ago, WYTEP was an innovative project addressing the needs of farm women (and young people) for training and extension in agricultural activities. The rationale for this was the recognition that farm women play important roles in agriculture, plus the fact that virtually all training and extension activities until then had been targeted at men. The focus was on women's productive activities in accordance with the then predominant "Women in Development" (WID) paradigm, but from the outset it was clear that training women could contribute to women's empowerment.

The objectives of the project changed slightly over the different phases. But essentially the development objective has been to "increase agricultural production on small and marginal holdings by targeting women as agricultural producers, thereby improving their social status and productivity to the benefit of all family members". Hence, social objectives have been included along with the economic objectives. After the first phase, there was criticism that many of the trained women and young people had been recruited

among the more well-to-do farmers. Under the third phase, young people were omitted from the target group. The evaluation focuses on the training and extension directed at women, which throughout the history of WYTEP has been the most important component of the project.

WYTEP is different from the other Danida-funded training projects for farm women in that, from the very beginning, it has provided the basic training in District Agricultural Training Centres, whereas the other projects have provided village-based training. Initially the basic training was for ten days, but in Phase III this was reduced to six days, both in order to cut down costs and because it is difficult to recruit relevant (preferably married) farm women who can leave their families behind for ten days.

During the first phase, the training was focused on crop production, but gradually this was expanded to include also allied activities such as animal husbandry, sericulture, horticulture and post-harvest technologies. During the last years of Phase II and in Phase III, Farm Women Groups (FWGs) were created, which have gradually evolved into Self-Help Groups (SHGs), with savings and credit operations.

During the three phases, WYTEP has gradually covered all 23 (undivided) districts of Karnataka, and now there are 23 training centres, out of which 16 have been constructed under WYTEP. The coverage of villages varies widely (from just 12 in Dakshina Kannada to 333 in Uttara Kannada). Coverage is often best near the *taluk* centres and along roads with bus routes. About 15% of Karnataka's villages have been covered (but a much smaller percentage of the farm women). The coverage within villages is also extremely uneven; in some cases only two or three farm women have been trained, in others more than twenty.

Under WYTEP, a large number of female extension officers were recruited and trained for the first time as Assistant Agricultural Officers-Farm Women (AAO-FW). However, initially there were very few female graduates in agriculture, so most had a background in "home science". They received extensive induction training before working in the field. More than fifty have received training in Denmark in agricultural extension and management issues (mostly for six months). Today about two-thirds of them have a home science background and about a third an agricultural degree. A total of 192 AAO-FW posts have been created, though 35 of these have remained vacant in spite of considerable pressure from Danida. 135 are posted at *taluk* level (out of 175 *taluks* in Karnataka), 20 in the training centres and 2 in the Department of Agriculture (Bangalore).

The Training & Visit (T&V) system of agricultural extension

The T&V system, developed with support from the World Bank in the 1970s, aims at establishing close links between agricultural research and agricultural extension. This is implemented through establishing a hierarchical organisational structure in Departments of Agriculture through which extension recommendations are continuously transmitted from the research institutions to the farmers. In the extension activities, the primary staff members are the Agricultural

continues next page

Extension Officers, the Subject Matter Specialists and the Village Extension Workers. These hold regular meetings and training sessions (e.g. every fortnight) in order to be continuously updated on extension messages based on research. The extension workers in turn make regular and frequent visits to a number of contact farmers in the villages and provide crop-specific and seasonally adapted recommendations. The farmers' reactions and adoption practices are subsequently transmitted back through the system to the research institutions.

Over the years, the T&V system has been criticised on a number of counts, e.g. for being essentially based on top-down, one-way communication, for focusing too much on (often better-off) individual contact farmers, for isolating advice on single crops from the broader farming system, for relying excessively on the adoption of technologies, for not taking contextual factors sufficiently into account, for being unsuitable for rain-fed agriculture, etc.

(Literature: Benor and Baxter, eds. (1984), Howell, ed. (1988), Christopolos and Nitsch (1996)).

In spite of some improvements, the training methods have continued to be built largely on the rigid T&V system, with its mainly top-down delivery of standardised, pre-determined messages ("chalk and talk"). However, the formation of FWGs/SHGs has provided a useful framework for more interactive extension activities.

Phase III of the project puts a lot of emphasis on institutional issues, such as the strengthening of FWGs/SHGs, building links with the newly established "Farmer Contact Centres" (at Hobli level), creating links with the panchayati raj Institutions, establishing Technology Development Funds linked to District Technical Advisory Committees, etc. Implementation of some of this has proved to be difficult, and there has been a running conflict between the Danish Embassy and the Government of Karnataka over the scope and course of Phase III (see p. 278). The project will be terminated in May 2005.

2.2 TANWA

Based on the experience of WYTEP, a similar project was started in Tamil Nadu in 1986. Throughout the project the development objective has been "to increase agricultural productivity and improve economic and food security on small and marginal farms". In Danida's own description of the project (in Danish in Danida's annual reports), from the beginning the objective has been stated to be dual, namely both economic – increased productivity – and social: "strengthening the women's position in society".

Taking into account the costs, it must be said that TANWA had a slow start. In phase I (1986-93) only 16,000 farm women in six districts were directly trained, and there was little emphasis on extension or the dissemination of skills by the directly trained farm women. In Phase II (1993-2003) all 28 districts of Tamil Nadu were covered. 215 posi-

tions as Agricultural Officer-Farm Women (AO-FW) have been created, but only 185 filled, generally with female agricultural graduates, 155 at taluk level, 28 at district level and 2 in Chennai. About a quarter of these have gone to Denmark for six months' training. 30 positions have remained vacant in spite of considerable pressure from Danida to fill these.

In the project's first year the training was institutionalised (as in WYTEP), but since then it has been village-based. Until 1998 the dissemination of skills by the farm women emphasized numbers more than quality, each trained farm woman supposedly disseminating to ten others. However, in the last few years the training of "co-farm women" has been made highly effective through five days' trainings based on careful selection and monitoring and a reduced emphasis on numbers. Training of more than a thousand link leaders, selected among the trained farm women, has been effective in this respect. With support from the AO-FW they have played an important role in training co-farm women. The second phase was extended for 2½ years, a phasing-out period with emphasis on consolidation, replication, gender mainstreaming, cost-sharing and sustainability. The project was finally terminated in March 2003.

Training methods in the skill-based training during much of the project have relied mainly on the top-down delivery of pre-determined messages, essentially based on the T&V system. But the rigid concentration on crops in Phase I has given way to a more broad-based approach in Phase II (e.g. including horticulture, livestock etc.). A lot of very instructive written training material has also been developed, taking advantage of the fact that the majority of the women trained are literate.

The most important innovation has been the formation of Farm Women Groups (FWGs) from 1998 onwards, a total of around 1500 groups, generally consisting of 15 to 20 farm women, some trained, some not. These groups have gradually evolved into Self-Help Groups (SHGs). They are given one day's training in group formation as well as specialised training in both agriculture and other income-generating activities. Since 2000, some groups have been under transformation to become "micro entrepreneurs", thus radically expanding the scope of the project. Clusters and federations of some of the groups have been formed in order to augment their resource mobilisation and strengthen their organisational sustainability. Although group formation has come belatedly, it has undoubtedly enhanced the effectiveness and impact of the project.

2.3 TEWA

This project started a year after TANWA, in 1987, in Orissa, a state that is much poorer than the two southern states. From the beginning TEWA had an explicit dual objective of raising the productivity of farm women and strengthening their position in society (as stated in Danida's annual reports). The formal development objective in both phases has simply been to "improve productivity and food security of small and marginal farmers".

This is achieved primarily through village-level training and the extension of farm women in a range of agricultural and associated skills/technologies, provided by Lady Village Agricultural Workers (LVAWs). These have been recruited and trained under the project in relatively large numbers, namely five batches amounting to a total of 434 LVAWs when the project ended in March 2003.

In comparison with the female staff members of the other three projects, the LVAWs can be considered grassroots extension workers. They have no academic qualifications, but are given a 14-month (initially 12-month) training course. A number of them have also gone to Denmark for six months of supplementary training. Generally, the LVAWs have been married women, educated to matriculation level and recruited in the rural areas, but some have been recruited from an urban background. Whereas the female staff members of the other three projects commute to and from the villages from district or taluk towns, the LVAWs are essentially based in the villages. This approach is certainly cheaper than those of the other projects in terms of both salaries and transport costs, and it allows for close interaction between female extension workers and farm women. The other side of this coin is that the scope and depth of the LVAWs' technical knowledge, and hence their authority, are more limited than those of female staff members of the other projects.

At a higher level, the work of the LVAWs has been supervised by a few Lady Agricultural Officers (LAOs). Provision was also made for 24 Lady Junior Agricultural Officers to be stationed at block level, but these plans never materialised.

In Phase I the project focus was primarily on capacity building for the trainers (LVAW, LAO and other departmental staff), on farm women training and on infrastructure support, for example, for the training centres. In Phase II the focus was broadened to farm women training, skill dissemination and extension, and involved a family approach, also targeting male farmers/husbands. A focus on support for the formation of Self-Help Groups was only added in the course of the second phase.

In the first phase, 1987-94, the project covered four districts, two in the more developed coastal area and two in the less developed interior. In the second phase, 1995-2003, four new districts were added, which were poorer and more remote than the districts from the first phase and with a sizable population of Adivasis (Scheduled Tribes). Plans for a third phase, covering the remaining five (formerly undivided) districts of Orissa, were given up owing to changes in Danida's country strategy. Instead the second phase was extended by 2½ years, based on a phase-out strategy emphasizing consolidation, cost-sharing and sustainability, in particular the incorporation of the project's activities into the GES, including the training of male extension workers in activities targeted at women (on a larger scale than in the other projects).

2.4 MAPWA

Based on the experiences of the previous projects, MAPWA was started in Madhya Pradesh in 1993. However, actual implementation was substantially delayed, primarily owing to difficulties in recruiting and training the project's staff. In Madhya Pradesh no female agricultural graduates were available, so instead female science graduates were recruited and given a one-year diploma training in agriculture at Jabalpur University. Hence full-scale operations did not start until late in 1997, and as a consequence the first phase was extended until 2002. The project has now moved into Phase II and was planned to last until 2006. After the Government of India's decision in 2003 to stop receiving assistance from small bilateral donors, the project period was reduced by a year so that the project will be terminated at the end of 2005. The first phase was implemented in 8 districts in Eastern Madhya Pradesh (later subdivided into 13 districts, 3 of which have recently been transferred to the new state of Chhattisgarh). Phase II is only

being implemented in some of the old and some new districts of what today constitutes Madhya Pradesh (the eastern part). Compared to the other three projects, MAPWA covers a much smaller part of the state in which it is being implemented.

In Phase I, around 70 Agricultural Development Officers-Farm Women (ADOs-FW) have been recruited and trained, only 10 of whom have a B.Sc. in agriculture. In this phase, 15 women have received 6 months training in Denmark in addition to the diploma training. Some of the ADOs-FW were shifted to Chhattisgarh state, but 57 have remained in the project in Madhya Pradesh. In Phase II, the aim is to recruit another 50 female staff, all with an agricultural degree (20 to be recruited from among the Scheduled Castes or Scheduled Tribes). From the outset the project has in principle targeted farm women from small and marginal farm households. The development objective of MAPWA is “contributing to sustainable increases in welfare of small and marginal farmer households in Madhya Pradesh”.

The cornerstone of the MAPWA model is Village-Based Training (VBT), an intensive local training of five days’ (in Phase II, three days’) duration for 25 selected women from a Rural Agricultural Extension Officer (RAEO) circle. The RAEOs are the grassroots level extension workers. There are 6,000 of these in Madhya Pradesh, of whom only 150 are women (recruited after 1999). The ADOs (FW) are in charge of the VBTs. A group of 25 women from three to five villages is selected in accordance with the selection criteria and called for the training programme. The extension part of the MAPWA approach consists of follow-up activities, performed by two ADOs (FW) in a circle. They include crop demonstrations and special training activities in subjects identified during the VBT as being of interest to the farm women concerned. This part also includes forming farm women contact groups (of trained and non-trained women) under the responsibility of the RAEO.

Phase II aims at extending the project to new districts while consolidating the results in the existing project area. It has been decided to give more emphasis to the extension part of the project and improve the extension approach and methodology. Providing training to the staff of the General Extension System is considered a strategic element that needs to be strengthened under Phase II in order to further integration of the MAPWA approach into the GES.

Chapter 3. Approach and method

This evaluation deals with all the normal (DAC) evaluation criteria, namely relevance, effectiveness, efficiency, impact and sustainability, in relation to the four projects. In order to highlight these aspects, a number of different methods have been used, including documentary studies (project documents, evaluations, reviews), analysis of project data (costs, achievements) and stakeholder interviews (with Danida staff, national and state government officials and project staff). However, as outlined in the introductory chapter, the evaluation has a special focus on the impact of the four projects. Most of it has actually taken the form of an impact study, designed to illuminate the most important aspects of the projects' impact. The main focus is on impact in relation to the primary group of beneficiaries, that is, the directly trained farm women, and to a lesser extent their families. This impact has been investigated under two broad headings, namely economic impact (production, income, etc.) and social impact (empowerment). A secondary focus is on the projects' impact in terms of institutional and policy changes. The objectives of the evaluation have been translated into a list of issues to be dealt with, provided in the Terms of Reference (see Annex 1).

A detailed account of the method used and the study design is provided in Annex 45. This chapter only contains some more general considerations with special emphasis on the conceptual framework.

3.1 Conceptual framework

Evaluating the agricultural extension methods employed by the projects has been fairly straightforward. All four projects have relied primarily on the Training and Visit approach, which until recently has dominated Indian agricultural extension activities. Gradually, however, all the projects have widened the scope of both the agricultural training and the extension activities. As part of the evaluation, a special report focusing on the relevance and appropriateness of the training and extension methods has been written (Project Report No. 1).

Evaluating the economic impact of the project is much more difficult. Basically, the problem is that there is no proper baseline survey with which the present-day economic situation of the trained farm women and their families can be compared. Scattered impact assessments with limited scope have been carried out by some of the projects, but these are not sufficiently uniform or consistent to be used as a basis for evaluation. The present evaluation provides a comprehensive picture of agricultural activities, income and the overall economic situation, including assets owned, etc. But in terms of changes from year to year, the evaluation has had to rely on information provided by the trained farm women (and in some cases their husbands). This raises the usual questions about reliability as well as the problem of attribution (see below). Thus it has not been possible to quantify precisely the economic benefits to women of their participation in the project.

A special problem in this context is that the interview-based data on yields turned out to be inconclusive. Increased yields are a central intended outcome of the training and extension activities. There is no doubt that, all things being equal, some of the methods and skills taught lead to higher yields. But since widespread drought in some parts of

the project areas have had a negative impact on yields, it has not been possible to document this expected positive effect quantitatively.

Evaluating the impact in terms of empowerment is even more difficult. Empowerment is both embodied and relational, and hence not amenable to direct measurement. The research methodology is inspired by the Gender and Development (GAD) approach and the social relations approach of Naila Kabeer. A crucial notion in the GAD / Empowerment approach is that women's subordination in the development process comes not from being left out of it but from its interaction with gender.

Gender implies a concern with the social relations between women and men and therefore differs from a concern with women alone that one finds in the Women in Development (WID) approach (Razavi and Miller, 1995). GAD emphasizes collective action by women and is an approach invoking the idea of process. Its focus is on the transformative potential of development interventions by mobilising women around self-identified needs, thereby building new and collective relationships and transforming awareness. In this approach also, men's gender interests constitute a basis for change. Intangible aspects like self-respect and dignity matter.

A focus on gender rather than on women has informed the way the questionnaires were developed. This includes an analysis of the gender division of labour in farm work at household level and elsewhere, as well as of the gender division of resources and the gender division of decision-making.

There has been some debate about the concepts of practical and strategic needs (Moser, 1993). Practical gender needs are the needs that women identify in their socially accepted roles. Strategic gender needs are the needs they identify because of their subordination to men. This classification has been widely questioned. The demarcation between the concepts is not a sharp one, and they are not mutually exclusive. A development intervention may relate to a practical need, but the way to achieve this may have strategic implications.

For the purpose of this study, the important issue here is the underlying question addressed by this classification. The question is: have the farm women training projects managed to facilitate strategic change in the way they address the practical needs and interests of farm women?

Not all practical changes have transformative potential, but some may be "entry points" into transformative change. A strategic intervention can have "ripple effects" on areas other than the primary area, for example by putting new technologies in women's hands or by building collective strength in a women's group. The role of outsiders (NGOs, women's organisations, donors) can become a catalytic one by building in transformative potential in the way a project is designed and implemented. This is how the study looks at practical and strategic needs and interests.

The term "empowerment" itself is elusive and is used in a variety of ways. In this study, the empowerment framework developed by Naila Kabeer has been applied (Kabeer, 2001; see also the note by Naila Kabeer in Annex 3). Empowerment refers to the expansion in people's ability to make strategic life choices in a context in which this ability was previously denied. However, the ability to exercise a choice is determined by three inter-related dimensions that should be distinguished from one another: resources: the

conditions under which choices are made; agency, or the ability to define one's goals and act upon them; and achievements, or the outcome of choices.

Resources refer to material (land, equipment, education, etc.), but also to human and social resources (knowledge, skills and imagination, as well as relationships, networks etc.). Agency goes beyond decision-making as included in the gender analysis (GAD) to comprise a range of purposive actions, such as bargaining, negotiation, deception, manipulation, subversion and resistance. Together resources and agency make up capabilities or the potentials of achieving valued ways of "being and doing" (Amartya Sen).

The evaluation distinguishes and identifies empowerment processes at different levels:

- individual resources, agency, achievements (self-confidence, pride, negotiation, abilities, etc.)
- mutually supportive social processes (among women, in families, communities, etc.)
- collective steps towards changing gender relations (e.g. farm women groups evolving into a movement of farm women).

3.2 Methodological problems

There are several methodological problems involved in aid impact studies. In relation to projects and programmes, impact is usually seen as the last step in the chain: input – output – outcome – impact. However, the concept of impact can be defined in different ways. Often a distinction is made between effect and impact. Effect is then seen as something that is closely linked to the project's objectives and happens during or immediately after implementation. Impact, by contrast, deals with long-term or sustainable changes brought about by a project, which may include unintended as well as intended changes, which themselves may be positive or negative. In this evaluation, we do not distinguish between effect and impact. Instead we use a broad concept of impact defined as the significant changes in people's lives and livelihoods that are brought about by a project, whether these are intended or unintended, positive or negative, short term or long term. Of course, the long-term, sustainable changes are the most interesting ones, but since we are dealing with projects that have either just been terminated or are still being implemented, the long-term impact is to some extent a matter of conjecture. But to some extent it is possible to assess this in relation to the women who were trained under the projects many years ago.

One of the most difficult problems in aid impact studies is that of attribution. We can register the fact that certain changes have taken place, such as an increase in income or in self-esteem. But to what extent is this due to the project? Other factors are also at play, for instance government programmes or NGO schemes, and, moreover, development is not generally driven by projects. People's own activities, their own efforts to improve their lot, are central to development, but projects can certainly catalyse or support such efforts. These, however, do not take place in a void, but are either enabled or constrained by contextual factors, both natural and societal. The impact of a project is always the product of an interaction between intervention, people and context. Hence, in this evaluation we are dealing with the projects, the people concerned (the beneficiaries) and the contexts. The methodological problems in aid impact studies are explored at greater length in Folke (1998), and in Sultana and Folke (1999).

Chapter 4. National and state contexts

This chapter deals summarily with some salient features of the national context in which the four training projects for farm women operated from the early 1980s onwards. This is presented under three headings: economic development, agricultural development and gender issues. It also provides a few comparative data for the four states in which the projects were implemented, viz. Karnataka, Tamil Nadu, Orissa and Madhya Pradesh. A much more detailed presentation of the state contexts can be found in the four project reports (Nos. 2-5).

4.1 National context

4.1.1 Economic development

Since the early 1980s, the Indian economy has developed tremendously, and there have been important changes in economic policies. Until then the ruling Congress Party pursued a mixed economy, with a relatively strong public sector and a tradition of state intervention in the economy. In 1984, Rajiv Gandhi became prime minister after the assassination of his mother, Indira Gandhi. He started a process of “modernisation” of the economy, which reduced state regulations and put more emphasis on the development of the private sector. After an economic crisis in 1991 and interventions by the World Bank and the International Monetary Fund, the Congress government of P.V. Narasimha Rao carried through an important economic reform, known as the “New Economic Policy”. In essence, this was a continuation of what Rajiv Gandhi had started earlier, but much more comprehensive, with an agenda of deregulation, liberalisation and privatisation.

This was in line with the structural adjustment policies carried out earlier in many other developing countries. It gave an impetus to the development of the economy by using the private sector as the engine of growth, but critics claimed that it increased the number of people falling below the poverty line. The policy also entailed a reduction of subsidies in the agricultural sector, and the fertilizer subsidy in particular became a hotly contested political issue. The new policies also raised questions about the appropriateness of the huge supply-driven, free agricultural extension service.

During the early 1980s, the growth of the Indian economy was relatively slow, but for the 1980s as a whole the annual growth rates were 4-5%. During 1990-92, they were less than 3%, but after introduction of the New Economic Policy from 1991 onwards they increased again and reached a peak of 6.4% during 1999-2000. Table 1 in Annex 6 presents economic development indicators for the period 1980-2002. The real per capita income has almost doubled over the two decades. The human development index has also risen considerably, but not quite as much.

Rural poverty has been declining in India. However, while there was a significant decline in rural poverty in the pre-reform period (1969-70 to 1990-91) there has been no significant decline subsequently (Table 2 in Annex 6). In terms of the Head-Count Ratio, rural poverty declined from 39.2% in 1987-88 to 37.5% during 1999-2000. However, these figures are contested. Official estimates suggest that rural poverty in terms of HCR

declined to around 27% by 1999-2000 (as shown in brackets in the last column of the table).

In contrast to many other developing countries, foreign aid plays only a marginal role in the Indian economy. The sheer size of India's population and economy, as well as its resource endowments and policies, have furthered a development based largely on the mobilisation of the country's own natural and human resources. Foreign aid in recent years has been less than 1% of GDP. Furthermore, of the total development assistance received by India, Denmark's share in most years has been less than 1%, relatively little in quantitative terms. Arguably, the importance of aid in India has more to do with its qualitative aspects, for example, the introduction of innovative approaches to development.

4.1.2 Agricultural development

The share of the agricultural sector in India's GDP fell steadily from over 35% during 1980-81 to around 22% by 2001-02. However, the agricultural sector continues to employ the bulk of the work force (around 60 per cent). The proportion of women workers to total workers in agriculture increased from 35.7% in 1981 to 51.7% in 1991.

The gross cropped area in India increased from 172.6 million ha in 1980-81 to over 192.6 million ha by 1998-99 (see Table 3 in Annex 6). The proportion of cropped area under irrigation, under high yielding varieties, per hectare fertilizer consumption, and cropping intensity rose between 1980-81 to 1998-99/2001-02. While food-grain production rose from 129.6 to 196.1 million t during the same period, oilseed production rose from 9.4 to 18.2 million t. Food grains account for over two-thirds of the gross irrigated area in India, and rice and wheat together claim the bulk share (over 60 per cent). India has become a net exporter of food grains in most recent years. The per capita net availability of food grains rose steadily from 410 grams in 1980 to 495 grams in 1995, but declined to 417 grams in 2001.

The number of operational agricultural holdings and area worked in India increased between 1980-81 and 1990-91 (see Table 4 in Annex 6). The number of operational holdings and area worked belonging to the small and marginal farm category (i.e. up to 2 ha) rose between 1980-81 and 1990-91. Although small and marginal holdings account for over three-fourths of the operational holdings in India, they account for less than a third of the area worked. The average size of operational holdings declined from 2.30 to 1.57 ha over the same period.

For a long time, the farmers' lobby has alleged that there is an urban bias in Indian agricultural pricing policy, causing the depression of prices for agricultural commodities. The government, on the other hand, has been keen to balance the interests of producers and consumers, especially small and marginal farmers, and other low-income people who are net buyers of agricultural commodities. However, following liberalisation, there has been a steep rise in the procurement price of agricultural commodities. The issue price of rice and wheat distributed through the Public Distribution System between 1985 and 2000 doubled for rice and increased four-fold for wheat.

Although reducing subsidies is one of the aims of structural adjustment in India, attempts to reduce them have met with stiff opposition from various interest groups.

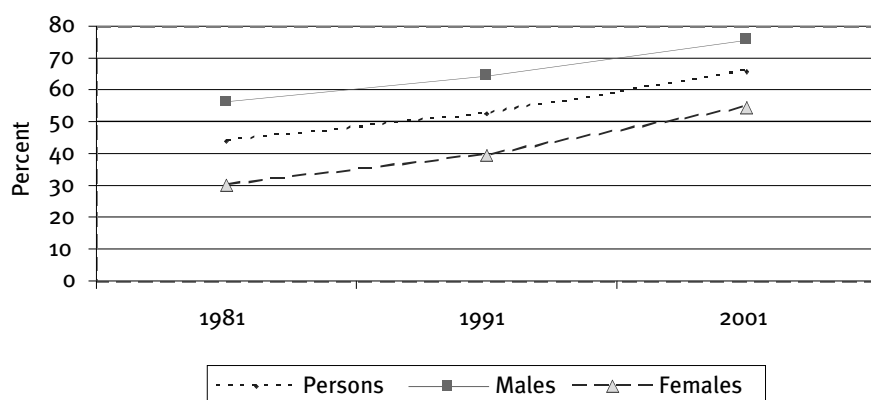
Input subsidies for Indian agriculture rose from Rs. 8.7 billion in 1980-81 to Rs. 104 billion in 1999-2000 at constant 1981-82 prices. As a proportion of GDP, these input subsidies rose from 0.6% to over 2.6% between 1980-81 and 1995-96, though falling back to 2.1% during 1999-2000.

4.1.3 Gender issues

The problems that women face in India are reflected at the aggregate level in the sex ratio. India is one of the few countries in the world that has more male than female inhabitants. Throughout the twentieth century the sex ratio became gradually more skewed, reaching a bottom level of 927 females per 1000 males in the 1991 census. The 2001 census witnessed a slight improvement to 933 females per 1000 males, but the gap remains huge. This is partly the result of widespread foeticide and infanticide, as well as discrimination against female children. Moreover, it reflects the hard life of Indian women in general, including high maternal mortality rates.

Women are divided on the basis of caste, class, religion and region, mirroring the social structure of the country. Caste is a very important determinant of social status and has a tremendous impact on all aspects of the life of a woman. The rights and privileges that a woman enjoys are strongly influenced by the rank of the caste to which she belongs. Religion is another powerful influencing factor in Indian society. The marriage laws, the right to maintenance in case of divorce, property rights and legal provisions are different for different religions. Regional differences are another important feature of Indian society. In some regions of the country, women have more autonomy and freedom not only in social interaction but in participation in all activities. The southern states, first of all Kerala, but also Tamil Nadu and to some extent Karnataka, belong in this category. In some regions, especially in the Hindi-speaking northern part of the country, the customs of child marriage and purdah (seclusion) are still prevalent, and many restrictions are placed on women. Two of the project states, namely Madhya Pradesh and (partly) Orissa, belong in this belt. In some areas retrograde practices like sati (widow-burning) and “dowry deaths” (the burning of a wife or daughter-in-law in disputes over dowry payments) still occur.

Figure 4.1. Literacy rates in India, 1981-2001



An important aspect of gender inequalities, one with great significance for the projects studied here, is literacy. In this area women in India have always trailed far behind men, but their position has improved remarkably over the last two decades (see Figure 4.1 and Table 5 in Annex 6). While male literacy has increased by 50% over the past two decades, female literacy has increased by more than 80%. That is in fact a remarkable achievement. As a consequence, the difference between male and female literacy has been considerably reduced, though it is still quite marked (76% for males and 54% for females in 2001).

More generally there is increasing awareness of the gender disparities that exist, and efforts are being made to ameliorate the situation. An important event was the setting up of the National Commission for Women by act of parliament in 1990 to safeguard the rights and legal entitlements of women. The 73rd and 74th amendments to the Indian Constitution (1993) provide for the reservation of seats in the local panchayats and municipalities for women, laying a strong foundation for their participation in decision-making at local levels. In 2001, the Government of India announced a “National Policy for Empowerment of Women”, its aim being to bring about the advancement, development and empowerment of women.

4.2 The states

The four states in which the projects have been implemented – Karnataka, Tamil Nadu, Orissa and Madhya Pradesh – are different in many ways. This is documented in the four project reports (Nos. 2-5) which present the state contexts in considerable detail. This section will only provide a few significant comparative perspectives substantiated by quantitative data.

Table 4.1 Area and population of the four states, 1981-2001

	Area (sq. km)	Population (millions)		
		1981	1991	2001
Karnataka	192,000	37.1	45.0	52.7
Tamil Nadu	130,000	48.4	55.9	62.1
Orissa	156,000	26.4	31.7	36.7
Madhya Pradesh	443,000	52.2	66.1	60.4*

Source: Census of India, 2001

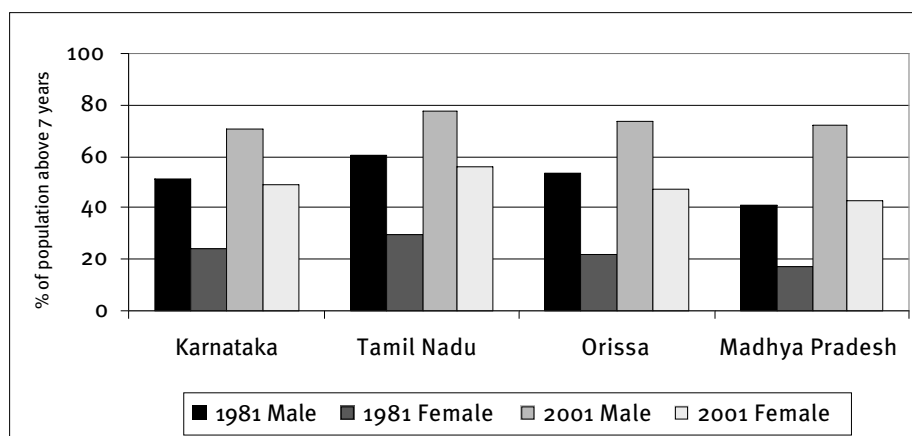
* 2001 figures for Madhya Pradesh relate to the smaller state after the separation of Chhattisgarh.

Table 4.1 shows that Madhya Pradesh is much larger than the other three states. It has also experienced the fastest population growth, of 26.6% from 1981 to 1991. At the other end of the scale, Tamil Nadu’s population grew by just 15.5% from 1981 to 1991. This difference testifies to the differences in family-planning practices and overall development between these two states.

Other demographic indicators mirroring the differences in level of development are life expectancy and infant mortality rates. Life expectancy varied from 56.8 years in Madhya Pradesh to 65.2 years in Tamil Nadu in the period 1996-2001. The male infant mortality rate (per thousand born) for the same period was 46 in Tamil Nadu, 76 in Karnataka, 99 in Madhya Pradesh and 106 in Orissa.

The literacy rate is very important in its own right, as well as being an indicator of development. Figure 4.2 shows the gender-disaggregated rural literacy rates in the four states in 1981 and 1991.

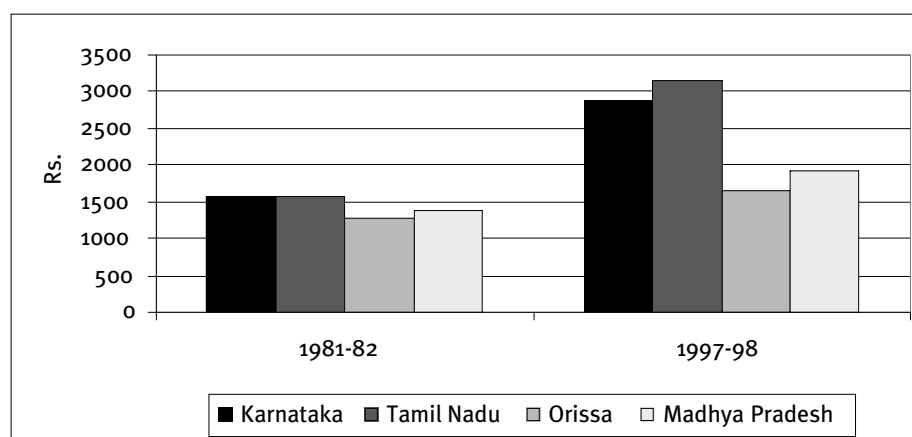
Figure 4.2. Rural literacy rates in the four states in 1981 and 2001



Source: Census of India, 2001

The differences in level of economic development are captured by the per capita state net domestic product. This is shown in Figure 4.3 for 1981-82, 1991-92 and 1997-89 (figures in constant 1980-81 prices).

Figure 4.3. Per capita net state domestic product for the four states

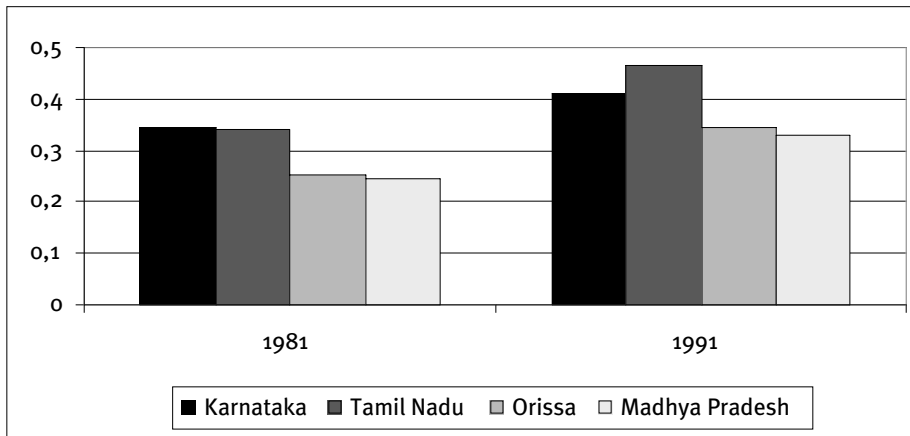


Source: National Human Development Report, 2001

This figure shows the difference between the two southern and the two northern states. Interestingly the difference was not very large in 1981-82, but since then the gap has

been widening. By 1997-98, the two northern states were much poorer than the two southern states. In particular, Tamil Nadu at the top has had very fast economic growth per capita. At the bottom, per capita growth in Orissa has been extremely slow.

Figure 4.4. Human Development Index for the four states, 1981 and 1991

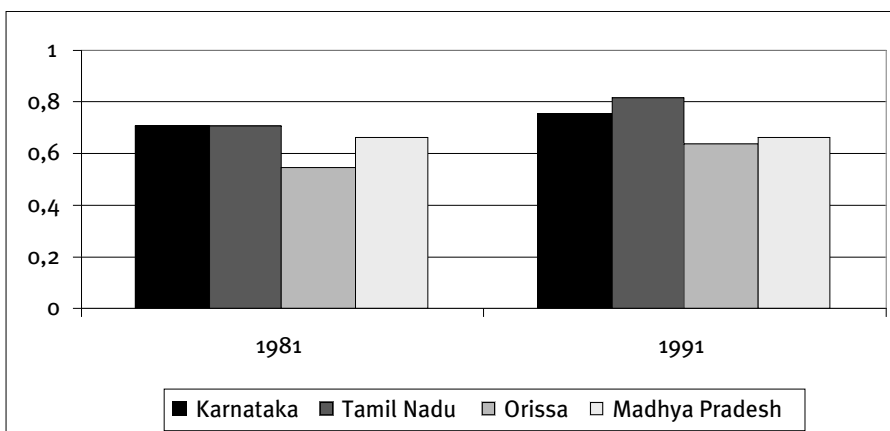


Source: National Human Development Report, 2001

The Human Development Index (HDI) summarises the economic, educational and health dimensions of development. Figure 4.4 presents the HDI for the four states for 1981 and 1991. Figure 4.5 shows the Gender Disparity Index, which is estimated as proportion of female achievements to male achievements in terms of human development (but technically calculated slightly different).

The figures once again demonstrate the difference between the two southern and the two northern states in terms of both human development and gender disparities. Again, Tamil Nadu has made rapid progress and tops the list in both areas in 1991. At the other end of the scale, Madhya Pradesh remains at the bottom in terms of human development. In comparison with the per capita economic figures, it is interesting that Orissa and Madhya Pradesh have reversed their order. While Orissa is the poorest of the four states, Madhya Pradesh has the lowest level of overall human development.

Figure 4.5. Gender Disparity Index for the four states, 1981 and 1991



Chapter 5. Implementation: achievements and problems

5.1 Achievements and costs

It has to be borne in mind that the four projects are very different in terms of both age/duration and money spent (cf. Table 2.1). Thus the two biggest projects, WYTEP and TANWA, have gradually covered all the districts in Karnataka and Tamil Nadu respectively, whereas TEWA and MAPWA have covered only eight (old, undivided) districts each. However, in all cases it is only a tiny fraction of the women from small and marginal farm holdings in the states who have been reached by the projects.

Table 5.1. Achievements: districts covered and female extension staff inducted

	No. of districts	No. of female extension staff
WYTEP (3 phases)	All 23 (undivided)	157 AAO-FW
TANWA (2 phases)	All 28	185 AO-FW
TEWA (2 phases)	8 (undivided)	434 LVAW
MAPWA, (phase I)	8 (undivided)	70 ADO-FW

One of the greatest achievements of all the projects has been to create a number of regular posts in the General Extension System (GES) for female staff. Until the advent of these projects, the GES staff in all the states was overwhelmingly (>99%) male, and the GES basically catered to the needs of male farmers exclusively. Table 5.1 shows the number of female staff inducted under each project. In addition to the numbers shown, a small number of posts at a higher level were created and filled with women.

Recruiting and training the female extension officers was a formidable challenge in three of the projects. In Tamil Nadu, female agricultural graduates were more or less readily available, so TANWA merely had to provide induction training. In Karnataka, the situation was different, and most of the AAOs-FW who were recruited had a home science background and went through extensive induction training. This has resulted in huge problems in women being recognised on a par with male colleagues who have an agricultural background. It is noticeable that the female extension staff were designated as Assistant Agricultural Officers (Farm Women) in contrast to the Agricultural Officers (Farm Women) under TANWA.

The problems were somewhat similar in the case of MAPWA, and problems with recruitment in fact delayed the project implementation by more than two years. Here most of the ADOs(FW) had a science background, and they were given a one-year diploma course in agriculture before starting their extension work. Orissa, being the least developed and poorest of the four states, chose a completely different approach. Under TEWA, only six Lady Agricultural Officers – more or less equivalent to the

female staff of the other projects – were appointed. The emphasis was on recruiting and training, for one year, a large number (434) of Lady Village Agricultural Workers (LVAWs), grassroots workers without any academic background. The village background and location of these women have given a different thrust to their extension work.

Since 1994, as part of the four projects, more than 150 of the female officers have gone to Denmark for a six-month agricultural management and extension course at the Nordic Agricultural Academy. This in itself must be viewed as a major achievement of the projects. Since the course was reviewed in 2001 by Carl Bro Management, it was decided not to emphasize this particular project component in the present evaluation. Nevertheless, the issue was raised in numerous key informant interviews, whether with female officers, their superiors or others. In general the Carl Bro review was relatively positive, but it recommended shortening the course from six to four months and partially revising its content.

The evaluation team's findings are more critical. No doubt, virtually all the female extension workers interviewed saw this as a very positive experience, in terms of both the exposure it gave them and their learning certain skills, especially management. Their superiors also generally viewed these women as performing better in their day-to-day work than those who had not gone to Denmark. But there has hardly been any post-return follow-up, and the women's position at middle levels in the hierarchy allows them little room to practise what they have learnt. This has led to some frustration, not to mention envy from others (also superiors) who were not given this opportunity. Clearly, sending these women to Denmark for six months has been extremely costly compared to what similar training in India would amount to. It appears that a more massive training effort in India (for all female and some male officers), possibly combined with short duration courses in Denmark for a much smaller and more carefully selected number of female extension officers with coordinating functions, would be a more effective and efficient way of pursuing training needs.

The most important achievement under all the projects has been the primary training of women from small and marginal farms. A range of other achievements are listed in the project reports, but these will not be dealt with here. Along with the directly trained women, a large group have been trained as co-farm women, but this varies a lot from project to project. The TEWA approach has implied direct training and extension by LVAWs being provided to a very large number of women in each village, in some cases more than one hundred. But the extent, intensity and quality of this training has apparently varied greatly. At the other end of the scale, WYTEP has concentrated on providing direct institutional training to a much smaller number of women. While these women have also disseminated some of their skills to others, the project has not made much effort to systematise and support this endeavour. Moreover, the coverage within villages has been arbitrary; in some cases only two or three farm women from a village have been trained, in other cases more than twenty.

By contrast, TANWA and MAPWA have developed a systematic approach to the selection of farm women. Around five women from each village have usually been selected, with an appropriate representation of Dalits (SCs) and Adivasis (STs). In addition to the direct village-based training of this primary group, co-farm women have also received training. So far, this has not been very effectively pursued under MAPWA, nor was it initially under TANWA. In terms of numbers, there was a target of "each one teaches ten", and this was rather mechanically reported in the project data. But for the last five

years or so, the training of co-farm women under TANWA has been made effective through carefully planned five-day training sessions involving both specially trained link leaders and trained farm women (as teachers). The training of 1,000 link leaders in technical as well as communication skills has been instrumental in this.

Thus, there are huge differences in what the projects have achieved with respect to the sheer numbers of trained farm women. The project reports contain details of annual performance: here we are only dealing with the aggregate numbers. Table 5.2 shows the total number of farm women directly trained. WYTEP Phase III and MAPWA Phase II have not been included because they started only recently.

Table 5.2. Number of farm women directly trained

	Phase I	Phase II	Total
WYTEP	21,000	34,000	55,000
TANWA	16,000	83,000	99,000
TEWA	144,000	334,000	478,000
MAPWA	13,000		13,000
All	194,000	451,000	645,000

The figures for three of the projects can be viewed as at least indicative of the magnitudes involved, although the evaluation team has been provided with different figures in some cases. The figures for TEWA, however, are very uncertain. It is not clear how much training has been required to be registered as trained, and during fieldwork it was discovered that in a number of cases women had been registered who claimed to have received no training. These problems, as well as the much larger problems involved in counting the co-farm women too, make comparisons extremely difficult.

Nevertheless, an attempt has been made to assess and compare the cost-efficiency of the four projects. This exercise is dealt with at some length in the four project reports: here it is considered only summarily. To allow for comparison, Table 5.3 deals only with a phase of the project that was implemented more or less at the same time in the 1990s (in some cases data was available only for part of the phase). For WYTEP the cost figure is an estimate of the costs of the women component (excluding the smaller youth component).

Table 5.3. Cost-efficiency: cost per trained farm woman (directly trained and co-farm women)

	No. of FW	Cost (mill. Rs.)	Cost per FW (Rs.)
WYTEP, Phase II (1990/91-1999/2000)	66,712	132.3	1983
TANWA, Phase II (1993/94-2001/02)	590,765	330.1	559
TEWA, Phase II (1995/96-1999/2000)	188,666	97.3	516
MAPWA, Phase I (1994-95-2000/01)	57,438	50.3	876
Totals	903,581	610.0	656

Adding up the figures for all the projects for the years for which data were available, an average cost per trained farm woman has been calculated: Rs. 656, or a little more than 100 DKK. With all the uncertainties involved, this can be taken as indicative of the cost-efficiency of the four projects. Adding those trained under Phase I within WYTEP, TANWA and TEWA brings the total number of directly trained and co-trained farm women to more than a million, to roughly 1.1 million.

However, the comparison of the projects must be taken with more than a spoonful of salt. The special problems regarding TEWA have already been mentioned. Moreover, the trained co-farm women have been treated as equivalent to directly trained farm women in WYTEP, TANWA and MAPWA. However, there is no doubt that this has generally been much less effective than the direct training, except in recent years under TANWA. On the whole, more than anything this exercise demonstrates the problems involved in making such comparisons even among rather similar projects, unless both the approach and the accounting principles are more or less the same.

Having said this, the results shown in Table 5.3 do correspond to a more common-sense assessment and comparison of the four projects. TEWA has been efficient in reaching large numbers of farm women through its unique approach, centred around the activities of a large number of village-based LVAWs, whose costs, especially wages and transport costs, are much less than those of their counterparts in the other three projects. At the other end of the scale, WYTEP is very costly primarily because it is based on institutionalised training with large overhead costs (including the costs of constructing a number of the training centres), and because it has done relatively little to train co-farm women. TANWA and MAPWA are somewhere in between, and TANWA has been somewhat more efficient than MAPWA. However, it must be emphasized that this is merely a rough assessment of cost-efficiency, not a full cost-benefit analysis. Given the even greater problems in quantifying the benefits received by the farm women, a proper cost-benefit estimate is impossible to calculate.

5.2 Agricultural extension policy and approach

Before the start of WYTEP, only scattered attempts had been made in India to target women in agricultural training and extension. Around 1980, several donors, including

Danida, tried to influence the Government of India to direct a greater part of its development activities towards women. The Danida-supported projects led the way in targeting women as agricultural producers on a major scale.

The agricultural extension system that has been prevalent in the projects is the “Training & Visit (T&V)” approach focusing on crop production. However, all the projects have widened the scope of both the agricultural training and the extension activities. Crop diversification, horticulture, sericulture, mushroom cultivation and animal husbandry have all been taken up. To some extent, this is in line with developments in the general extension system, but there are some differences between the states. For instance, since 1998 the Government of Tamil Nadu has attempted to broaden the base of the extension system with the overall aim of integrating agriculture with other associated activities. However, the contact farmer system and other elements of the original T&V approach have been retained. By contrast, the agricultural extension service of Madhya Pradesh continues to deal only with crops (and neither animal husbandry nor horticulture). A detailed evaluation of the projects’ training and extension activities can be found in Project Report No. 1.

In 2001, the Government of India adopted a new “Policy Framework for Agricultural Extension” (GoI, 2001) which contains a whole section on “mainstreaming women in agriculture”, including as an aim to “gradually ensure that at least one third of all extension workers are women” (op. cit.: 16). More generally, the objective of the new extension framework is to facilitate a transformation of the agricultural extension system from the T&V approach to a more holistic and participatory farming systems approach. A summary of this policy framework is provided in an annex to Project Report No. 1.

In Danida’s sector policy document on agriculture, there is a section on agricultural extension, which includes some critical remarks about the T&V approach:

“In some circumstances where clearly defined farming systems, appropriate technology with a high benefit/cost ratio and complementary resources exist, T&V has clearly been successful. In less favourable environments the performance of T&V systems has generally been weak. Critiques have focused particularly on increased staff requirements, high recurrent costs and the top-down nature of supply” (Danida, 1996: 70).

The critical points are certainly applicable to most of India – including the states under study – characterised by “less favourable environments”. The document goes on to state that:

“It is now generally recognised that extension based on group contact can be significantly more cost-effective than extension targeted at individuals” (ibid.).

Another section in the document discusses the position of women in agriculture, which among other things recommends (Danida, 1996: 39):

- an increased focus on women’s roles and constraints in farming
- promotion of more female degree-holders as extension workers
- development of gender-specific extension services
- support for the formation of women’s groups as focal points for extension and credit.

Against the backdrop of these policy statements, it can be said that the four training projects for farm women were really pioneering in practising large-scale agricultural training and extension targeted at women, particularly from small and marginal farming households. In several other respects, the projects were rather slow in adopting new approaches to agricultural extension. The T&V approach generally held sway over the projects' extension activities until late in the 1990s. It is noticeable that, for example, the widely acclaimed "Farmer Field School" approach, with its more participatory and needs-based methodology, has not played any role in these four projects. But the introduction of Farm Women Groups in the second half of the 1990s constituted a major break with the past and provided a better framework for extension activities. Moreover, many of these groups widened the scope of their work by taking up savings and credit and engaging in other income-generating activities.

At present, the Departments of Agriculture in all the states are considering moving towards a more demand-driven extension service. In Madhya Pradesh, this is being tried out in a pilot project in one particular district, combined with elements of payment for services. Karnataka has paved the way for this on a major scale by establishing decentralised Farmer Contact Centres at hobli level. But these efforts are still at a very early stage and in any case are being implemented outside the projects being reported on here.

5.3 Institutional versus village-based training

A common weakness of the projects is that they have emphasized training more than extension. Moreover, the link between training and extension has generally been weak, particularly in WYTEP, with its institutionalised training. It is interesting that WYTEP has throughout continued to rely primarily on institutional training in District Agricultural Training Centres, whereas the three other projects have practised village-based training for the farm women. The question of institutional versus village-based training is a major implementation issue with significant implications for effectiveness, efficiency and impact, as documented by this evaluation.

Inspired by WYTEP, TANWA initially provided institutional training for the farm women, but this was very soon abolished in favour of village-based training. From the outset, both TEWA and MAPWA have used village-based training as the core of their activities.

Institutionalised training does have some advantages, not least that it provides a unique opportunity for these women to get away from their villages and families for an extended period of time. This means that they can fully concentrate on the training, and it brings them together with other women in a way that may certainly contribute to individual and collective empowerment. In fact, almost all the women interviewed under WYTEP said they preferred institutional to village-based training.

But institutionalised training also has several serious drawbacks. It is particularly liable to a less effective "chalk and talk" approach. In WYTEP, moreover, it has led to a lack of coordination between training and extension. Also, it is rather costly compared to village-based training. But the most serious problem has been its consequences for the selection of farm women for the training. Many eligible women simply cannot be persuaded to go to the training centre for ten days (from 2001 for 6 days). Either they do not want to or feel they cannot do this to their families, or else their husbands or in-laws

do not allow them to do so. This has marred the project throughout its long history. In fact the AAO-FW have often had to chase round villages in order to get the required number of thirty willing to attend a course.

The primary target group for WYTEP (apart from the youth component) has been married women from small and marginal farm households. But our survey has shown that a very sizable share of the trained women have not lived up to the selection criteria. Either they belong to the category of better-off farmers (30% with more than five acres of land), or they are landless (17%), or they are young, unmarried women (19%) with no immediate prospect of using the skills imparted to them. Moreover, the very poor from the target group are less likely to come forward for institutional training because they simply cannot afford to be away from home for such a long period. This has skewed attendance towards slightly better-off farm women. In many cases also, the women who have gone for training have not been genuinely motivated. All this has partly derailed the project, making it less effective and wasting a good deal of resources. The quantitative and qualitative parts of this study document relatively less impact on the part of WYTEP than in the case of the other three projects. In the other projects too there has been some inclusion of women from outside the target group – particularly in MAPWA – or without sufficient motivation, but these problems are generally much less than those encountered in WYTEP.

While in some respects the projects have learnt from each other, in others it is remarkable how little learning across the projects there has been. For instance, it is noticeable how large the gap is between the highly systematic and effective training of co-farm women in TANWA in recent years and the lack of any similar effort in WYTEP or MAPWA.

WYTEP pioneered the whole approach, and TANWA, TEWA and MAPWA successively incorporated certain lessons learnt – positively and negatively – from WYTEP and each other. In particular, the three more recent projects opted for a village-based training approach in contrast to the institutional approach pursued by WYTEP. In view of the drawbacks of the institutional approach – highlighted by this evaluation, but known for years – it is strange that WYTEP has continued to provide the basic training in training centres. Apparently, WYTEP has not been able to learn from itself, or maybe it is simply a case of vested interests asserting themselves once the training centres had been built and staffed. It appears that more than 75% of the courses in these training centres have been related to WYTEP, so the continued institutional training has been of critical importance for their viability. In this respect, a parallel can be drawn with the continued, extremely costly training of Indian female extension staff in a Danish institution (mentioned above). In any case, Danida and the Government of Karnataka must share the responsibility for having continued an approach for more than twenty years which is both costly and less effective, and which has produced a more limited impact than the other three projects.

5.4 The role of Danida advisers

An important issue is the way the projects have operated vis-à-vis the Departments of Agriculture (DoA), and in particular the role of the Danida advisers. Compared to other donors, Danida employs a large number of advisers who are accountable directly to Danida and the Danish Embassy (cf. Cox et al., 2002). This has the great advantage of

ensuring a “hands-on” approach to the implementation of projects, but the risk is that these advisers become very strong and in fact come effectively to manage the projects, thus undermining ownership and potentially sustainability. During implementation, all four projects have experienced the pros and cons of having strong advisers to varying degrees. The three older projects have had the same advisers for around fifteen years, until the end in TANWA and TEWA and until Phase III in WYTEP. Such a degree of continuity is unusual. These three ladies (all Indian) have all played a major role in building up the projects, not only as advisers but certainly in decision-making as well. The position of the MAPWA adviser is no different, except that she has not been around for so many years. Contributing to their strong position has been the fact that the Departments of Agriculture have made frequent transfers of project directors (whatever their exact charge; this varies from project to project) and other senior officers in the DoA dealing with the projects. In some cases, the post of project director appears to have been given to somebody on the verge of retirement. Most project directors of MAPWA, for instance, have not served for more than a year or two, and in some cases their term has been less than a year (before retirement).

There is no doubt that the strong advisers have contributed to the relatively effective implementation of the projects. But it is also clear that their strong position has created some problems. A top officer in DoA in Karnataka stated that during the first two phases of WYTEP, the project was in practice isolated from other DoA activities (and this view was shared by others). Only after Phase III started was the project in fact gradually integrated into the DoA. WYTEP may be an extreme case, but the other projects have encountered similar problems to varying degrees. To some extent, of course, this is not just a question of having strong advisers, but also of contributing to development through projects that have their own organisational identity.

The relationships between Danida and the Danish Embassy on the one hand and the state governments on the other have sometimes been strained. Again, WYTEP seems to be the most notorious case. The negotiations over the third phase of the project dragged on for a very long time, partly owing to certain conditionalities set up by Danida. Implementation of Phase III has been rather slow, and many of the activities stipulated in the plans have not in fact materialised. The proposed establishment of District Technical Advisory Committees is a case in point. Such committees are viewed as being “overkill” by the DoA, which on the whole accuses Danida and the Danish Embassy of placing too many demands and of “not seeing the forest for the trees”. As part of its phasing-out strategy, Danida has insisted that the Government of Karnataka should foot the major part of the bill in the last phase. From a sustainability point of view this makes good sense, but it also fuels a feeling that the foreign donor is intervening too much and paying too little. For quite some time the responsible persons at both ends have hardly been on speaking terms. In the middle of Phase III, the new, highly qualified Danida adviser resigned, “caught in the crossfire between the DoA and the Embassy”. It is uncertain to what extent the objectives of Phase III will actually be achieved.

5.5 Integration into the Departments of Agriculture

All the projects have aimed at integrating the female staff into the Departments of Agriculture and mainstreaming gender issues in the General Extension System. Given the complete male dominance in these departments, this has not been an easy task. Once again, the problems have been particularly stubborn in WYTEP. The AAOs-FW

have been kept as a separate cadre in the DoA, which has a total staff of about 5,000. Recently (in 2002), along with male colleagues of the same rank, they have been promoted as Agricultural Officers, that is, as AO-FW, but only after considerable lobbying. They have actually taken their case to court in order to obtain equal treatment with male colleagues. Over the years Danida has tried hard to promote their cause, but until recently with limited success. There have been no new recruitments in the last five years, but in 2002 the Department of Agriculture (DoA) as a whole has recruited a hundred Assistant Directors and fifty AOs, of whom 42% are women (35% women on quota, the rest on merit).

The new all-India agricultural extension policy framework (mentioned above), in combination with state-level policies regarding the priority of recruiting female staff, will go a long way to ensure that the female staff inducted under the four projects will be kept in the Departments of Agriculture and their numbers increased after the termination of the projects. In recent phases, all the projects have introduced some cost sharing, and generally the salaries of the female extension staff have been taken over by the Departments of Agriculture before the termination of the projects. This obviously increases the prospects for financial sustainability. But it is less certain that their future activities will continue to be targeted almost exclusively at farm women. Some dilution of this focus is likely.

In all the projects, there have been attempts to mainstream gender issues in the GES, but by and large these efforts have been entirely inadequate. However, in view of the limited number of female staff members, it is necessary for male staff members to become involved on a much larger scale in activities targeting farm women. At the lowest level of the hierarchy, this already happens to a considerable extent. In TEWA, there have been conscious efforts to plan for a systematic transfer of extension activities targeted at women from LVAWs to male VAWs. This has been under implementation for some time and will continue on a large scale after the termination of the project.

In all the states, the gender issues have met with varying degrees of resistance or indifference from many male officers. Moreover, until very recently there have hardly been any women employed within the DoA/GES in any of the states with a position as Assistant Director of Agriculture or above. But there is a tendency for the resistance to be strongest at the lower and middle levels, gender being dealt with more positively, even enthusiastically, by many officers at the higher levels (Joint Directors and above). Some of these have expressed the view that the extension activities carried out by the female staff members targeted at women produce better results than all the other extension work carried out by their departments.

5.6 Other issues

A number of other implementation issues are dealt with in the project reports. Only a couple of these will be briefly mentioned here. The implementation of WYTEP and TEWA has been hampered by vacancies in the female staff postings. Under WYTEP a total of 192 posts as AAO(FW) were created, but 35 of these have remained vacant. Under TANWA 215 posts as AO(FW) were created, of which 30 have remained vacant. Over the years, Danida has exerted considerable pressure to get these posts filled, but in vain. Since the female extension officers have been the prime movers of the project activities, this has meant that the activities in a relatively large number of taluks have

been implemented with less vigour, where they have been implemented at all. Most of the taluks with vacancies are remotely located in the states and less developed or in other ways less attractive. This is unfortunate, since the need for such activities is even greater in these regions than in other parts of the states.

Another problem which has hampered implementation of three of the four projects considerably is transport. In TEWA this has been less of a problem, because the LVAWs have been stationed in the villages. In the other three projects, the female extension officers have needed transportation to get from their station, which is usually sited at the taluk or block headquarters, to the villages. The problem has been brought to light in several review reports without this leading to any durable solution.

Clearly this is basically a question of limited resources: the projects do not command a sufficient number of vehicles to serve the needs of the female extension staff. But the women have also been hampered by their intermediate position in the hierarchy, subordinate to male officers who take the decisions concerning the use of vehicles. In some cases, there have also been allegations of the irregular use of vehicles. In any case, the female extension workers have often had to find other means of transport, such as buses, making their planning and use of time less efficient.

Chapter 6. Outcome and impact: economic benefits

6.1 Profile of trained farm women

All the projects have had as their main objective enhancing the performance of farm women from small and marginal farms in their role as agricultural producers in order to increase productivity and income. The first question to be raised is whether the projects have succeeded in reaching the target group. This can be answered by referring to the data from the survey.

Table 6.1. Distribution of farm women households by landholding size (acres and %)

	Landless	<2.5 ac.	2.5-5 ac.	5-10 ac.	10-25 ac.	>25 ac.	Total
WYTEP	17	39	14	14	11	4	100
TANWA	8	52	24	14	1	0	100
TEWA	4	52	30	12	1	1	100
MAPWA	2	13	27	43	14	1	100
Total (%)	9	41	23	19	7	2	100
Total (No.)	51	223	124	102	36	9	545

Source: Field survey. Shaded: target group

Table 6.1 shows the size of landholdings of 545 farm women covered by the survey. It can be seen that there is a remarkable difference between the projects in this respect. In TANWA and TEWA, 76% and 82% respectively belong to the primary target group, with landholdings of up to five acres, and most of the rest to the next largest group-group, with up to ten acres. This can be considered satisfactory. But in WYTEP only 53% and in MAPWA only a meagre 40% belong to the primary target group. In WYTEP there is both a large group of landless and a large group with more than ten acres land. In MAPWA the largest group has between five and ten acres of land, but there are also many with more than ten acres. This is clearly unsatisfactory from the point of view of the projects' objectives. In both WYTEP and MAPWA, the farm women who are given training need to be selected more carefully.

It should be added that the absolute size of landholdings is a crude measure. There is a great deal of difference between having dry land and land with access to irrigation. Hence the inclusion of a certain percentage with more than five acres of dry land can be justified, but nothing like the WYTEP and MAPWA distributions shown in the table. It must also be emphasized that the survey sample is not statistically representative of the actual distribution of the entire population of trained farm women. As such it is fairly

large and representative, being therefore indicative of the magnitudes involved, but not the exact distribution.

In relation to the size of landholdings, it is of course relevant to investigate whether the household is constituted as a nuclear or joint family. For years the trend has been moving away from joint families towards more and more nuclear families all over India. Joint families constitute 30% of the sample, ranging from 39% under WYTEP, 31% under TANWA, 26% under MAPWA to 21% under TEWA. Not surprisingly, there is a tendency for joint families to have larger land holdings. Under WYTEP more than half of the households having more than 5 acres belong to joint families, whereas under MAPWA only one third of those with more than 5 acres are joint families.

All the projects have targeted married women, and the overwhelming majority of the women in the sample, more than 90% in three of the projects, are in fact married. But in WYTEP only 67% were found to be married, and 19% being unmarried and 13% widows, these and therefore being outside the target group and less likely to have benefited from the training (or to have actually put it into practice). The remaining 13% were widows, a particularly vulnerable group worth targeting if they are actually involved in agriculture.

A number of other characteristics are relevant in judging outcome and impact in relation to the profiles of the farm women. In particular the differences between the four projects (and therefore states) are of considerable interest.

Table 6.2. Social status of farm women (per cent)

	SC	ST	OBC	Forward	Others	Total
WYTEP	11	8	71	5	5	100
TANWA	34	0	28	1	38	100
TEWA	12	30	45	10	3	100
MAPWA	15	34	46	5	0	100
Total (%)	19	15	48	5	13	100
Total (No.)	101	81	263	27	73	545

SC = Scheduled Caste, ST = Scheduled Tribe, OBC = Other Backward Class

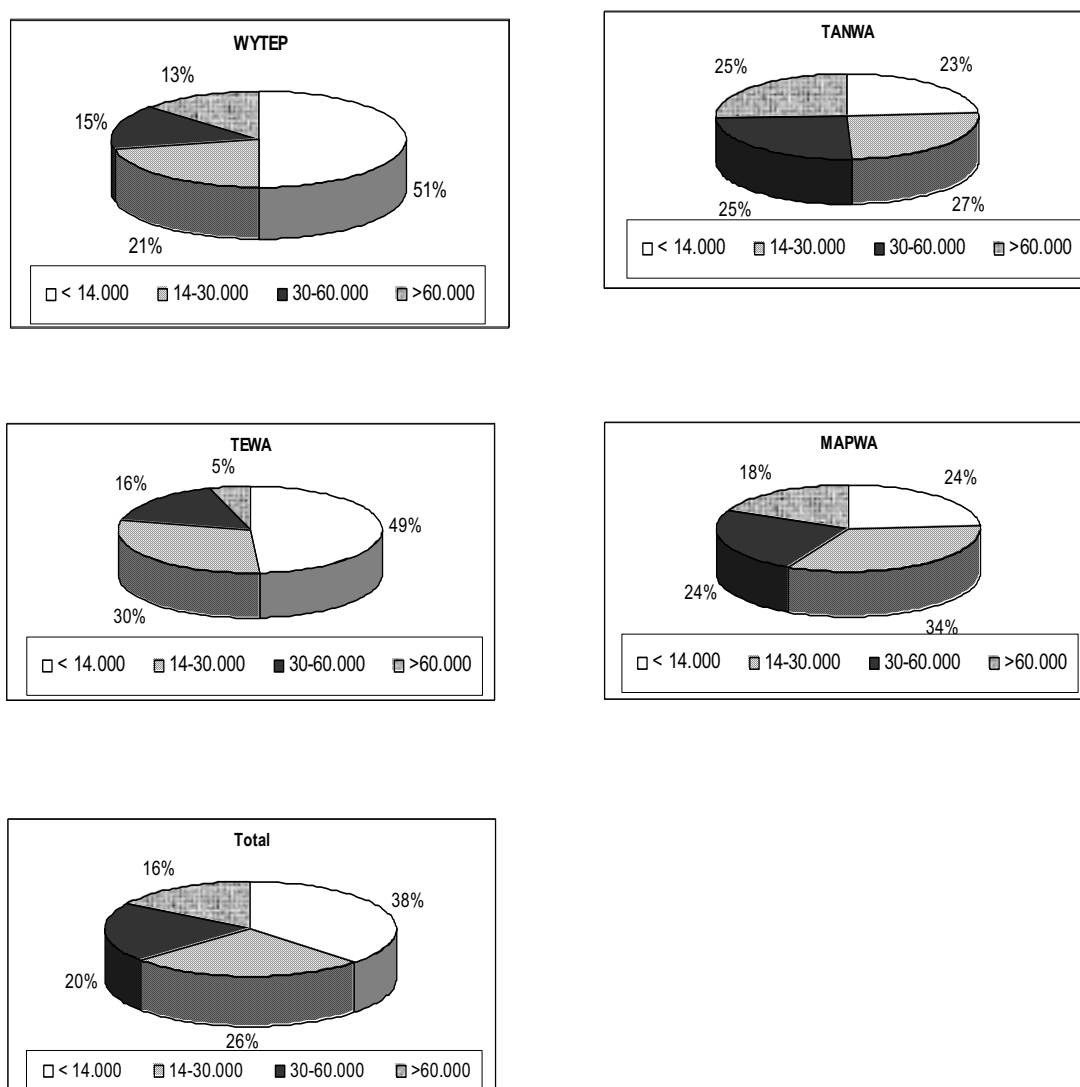
Source: Field survey

The social status of the farm women is shown in Table 6.2. As might be expected, the largest group is the heterogeneous category of Other Backward Classes (OBCs), generally comprising less well-to-do farmers in contrast to the better-off forward castes. The Scheduled Castes (SCs or Dalits) and Scheduled Tribes (STs or Adivasis) are the poorest groups, and it is gratifying to see that they have been well covered by the projects. The Dalits are especially well represented in TANWA, the Adivasis in TEWA and MAPWA

(Orissa and Madhya Pradesh being the only states among these four with large Adivasi populations). In the whole sample there are only five Muslim women, a clear indication that this population group is underrepresented among the project beneficiaries. For TANWA, the sample under “others” includes nine Christians, corresponding to their share of the population in Tamil Nadu. A good number of those classified as “others” under TANWA ought to have been classified as “forward”.

Figure 6.1 shows the reported annual household income of the trained farm women. These figures, however, must be viewed with some reservation. It is notoriously difficult to obtain correct information about incomes through interviewing, both because the respondents (in this case, women who are generally not heads of household) may not have a clear picture, and because in some cases they may want to overestimate or (particularly) underestimate their incomes.

Figure 6.1. Annual household income of farm women



Source: Field survey

It can be seen that 64% are very poor (<30,000 Rs.), 20% a little better off and only 16% well-to-do, relatively speaking. Under TANWA 50% are better-off or well-to-do. At the other end of the scale, TEWA has only 21% in these categories. This is as expected, Tamil Nadu being the richest and Orissa the poorest of the four states. It is more surprising that the women trained under MAPWA (in the sample) are better off than those trained under WYTEP, since Karnataka is considerably richer than Madhya Pradesh. But this is primarily explained by the large share (17%) of generally very poor landless households in WYTEP combined with the very large share (58%) of generally better-off households with more than five acres of land in MAPWA.

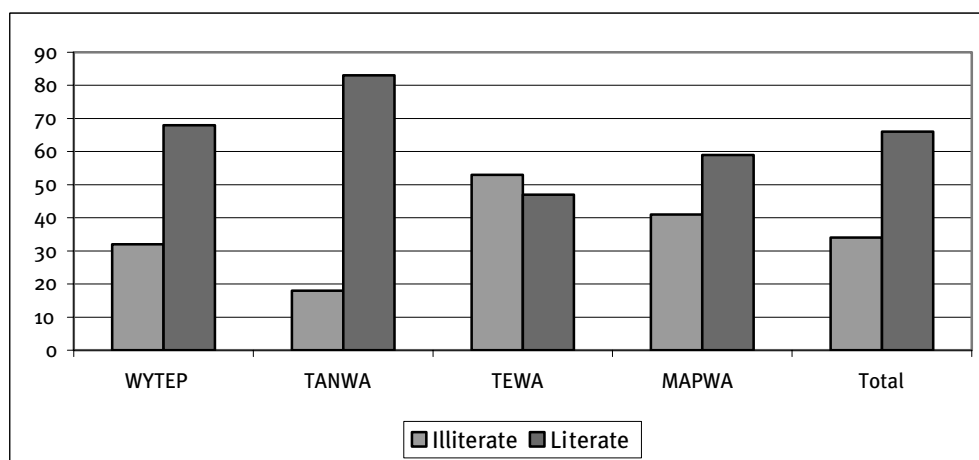
Table 6.3. Indicators of material wealth of households of trained farm women (% having)

	Electricity	Radio	Television	Bicycle	Telephone
WYTEP	95	50	33	36	15
TANWA	89	49	61	68	21
TEWA	23	29	18	69	7
MAPWA	72	25	40	57	1
Total	74	41	39	56	13

Source: Field survey

Other indicators of the differences in material wealth are shown in Table 6.3. The main difference is between the farm women households from the two southern states and the two northern states, corresponding to their general level of development. Combining the indicators provides a picture of TANWA households at the top and TEWA households at the bottom, which is in accordance with the general level of development in Tamil Nadu as compared with Orissa.

Figure 6.2. Literacy status of farm women



Source: Field survey

Figure 6.2 shows the literacy status of the trained farm women. Needless to say, this is an extremely important factor, both in relation to the prospects for learning from the training, and more generally in relation to the lives and development prospects of these women. It can be seen that two-thirds are literate, but with a great deal of variation from project to project. Given the literacy situation in the four states, it is no surprise that TANWA ranks highest with 83%, followed by WYTEP, MAPWA and at the bottom TEWA with just 47%.

6.2 Adoption of skills and technologies

In all the projects, the training of farm women has focused on a range of simple agricultural skills and technologies. While there has been some variation in numbers as well as the exact skills and technologies imparted, the most important have been more or less the same across the projects. The main focus has been on crop production. The most important skills are soil testing, soil preparation, seed selection, seed testing, seed treatment, compost preparation, organic pesticides and pest control. These skills are described in some detail in Annex 2. In the survey the farm women were interviewed about the training programmes they had attended, the methods they had learnt and how they had put them into practice. The result is presented in Table 6.4.

Table 6.4. Average number of programmes attended and methods learnt, tried out and still being used

	No. of programmes	No. of methods learnt	No. tried out	No. still used	No. of FW
WYTEP	1.1	3.5	1.4	1.0	174
TANWA	1.8	4.5	3.5	2.8	160
TEWA	1.8	4.3	3.7	3.2	116
MAPWA	2.3	4.5	4.1	3.7	95
All (av.)	1.7	4.1	3.0	2.5	545

Source: Field survey

The most striking feature in this table is the difference between WYTEP and the other three projects. In WYTEP most farm women have attended only the basic institutional training (average 1.1). In the other three projects the average is closer to two training programmes attended. There are also significant differences between WYTEP and the other three projects in terms of the number of methods learnt, tried out and still being used. The women trained under WYTEP in particular have put the methods into practice on a much lesser scale than those trained under the other projects: on average the WYTEP women are still using just one method against an average of around three methods for the other projects. In these respects MAPWA tops the list, but it must be remembered that MAPWA is more recent than the other three projects, for which the sample includes some who were trained many years ago. In WYTEP and TANWA, the number of methods learnt, tried out and still used is higher in the more recent phase(s)

compared to the earlier phase(s). Clearly, the sheer number of methods learnt, put into practice and still used is a crude measure of outcomes, but the findings regarding the differences between WYTEP and the other three projects have been corroborated by other quantitative and qualitative field data.

The number of methods learnt, tried out and still used has also been cross-tabulated with the background variables presented in the preceding section for the four projects combined. On average the literates have learnt and practised slightly more methods than the illiterates, but this tendency is only marked in WYTEP and TANWA, and in MAPWA there is no difference. Marital status is significantly correlated with number of methods learnt, tried out and still used. For married women the average figures are 4.2, 3.2 and 2.6 respectively, for unmarried women 3.5, 1.4 and 1.1 respectively. Widows are somewhere in between, but closer to the unmarried women. Those living in nuclear families have tried out and are still using slightly more methods than those living in joint families. Household income is significantly correlated with the number of methods learnt, tried out and still used. A comparison of those with annual incomes below Rs. 14,000 and those with incomes above Rs. 30,000 shows this: average number of methods learnt, 3.9 vs. 4.3; methods tried out, 2.5 vs. 3.4; methods still used, 2.0 vs. 2.9. Thus, the better off women are, the more the methods they have learnt, tried out and are still using. By contrast, social status presents a more mixed overall picture, with little difference between the main groups in terms of the number of methods learnt and practised.

Practising new methods is closely related to the role of farm women in decision-making. Traditionally the men have been the decision-makers in agricultural matters, but the survey shows that the trained farm women have acquired an important role in decisions concerning agriculture. Chapter 7 discusses a wider range of issues related to the role of these women as decision-makers.

Table 6.5. Role of farm women in decision-making about introduction of new technologies on the farm (per cent of farm women)

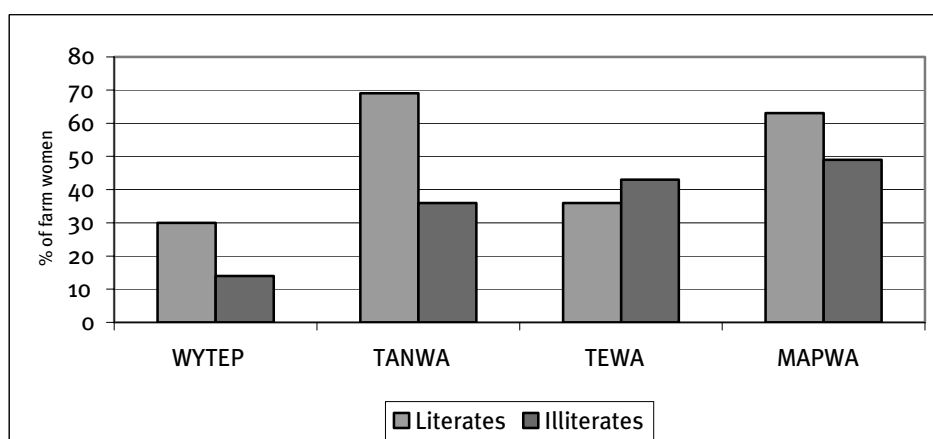
	Consulted	Joint decision	Main Decision	Other	Total
WYTEP	10	25	6	59	100
TANWA	9	63	11	17	100
TEWA	9	40	28	23	100
MAPWA	16	57	8	19	100
Total	10	45	13	32	100

Source: Field survey

Again there is a striking difference between WYTEP and the other three projects. Under TANWA, TEWA and MAPWA, the majority of trained farm women have a remarkably strong role as decision-makers concerning the introduction new farm technologies. Three-fourths of the TANWA women are either joint decision-makers or the main deci-

sion-makers, and TEWA and MAPWA are not far behind. Among the TEWA women, it is noticeable that more than one fourth are actually the main decision-maker. Most of these are from the Adivasi (ST) communities, where women traditionally have a relatively strong and autonomous role. Under WYTEP, by contrast, the majority reported that they had no role in decision-making or were simply informed about decisions by male decision-makers. Possible explanations for this include problems with the selection and motivation of farm women, as well as weaknesses in the institutional training and extension activities provided by WYTEP (cf. Chapter 5).

Figure 6.3. Relationship between literacy and joint decision making about introduction of new technologies on the farm



Not surprisingly, literate farm women generally have a stronger role than illiterate women in decision-making about the introduction of new technologies on the farm, as can be seen in Figure 6.3. The difference is especially marked for WYTEP and TANWA, somewhat smaller for MAPWA, and does not hold at all for TEWA, where illiterates are actually more involved in joint decision-making (as well as in main decision-making). The results for MAPWA and TEWA are influenced by the many Adivasi (ST) women under these projects who are generally illiterate but enjoy a relatively strong and autonomous role.

6.3 Economic benefits of new practices

Both the survey and data from other parts of the study have documented that most of the trained farm women report that they and their families have reaped economic benefits from practising the skills and technologies learnt. But the impact has been far from uniform. The preceding section has shown how the level of adoption of skills has varied between projects and between groups of women with different characteristics. Similarly the economic benefits have varied a great deal, but it has been difficult to quantify these in any exact way. The adoption of these methods has interacted with a range of other factors influencing agricultural production, such as the vagaries of the climate, the prices of inputs such as chemical fertilizers, market prices for agricultural products etc. In some cases prolonged droughts have meant that the trained farm women have not even tried to put the skills they have learnt into practice or that they have done so without obtaining any economic benefit in return. Project reports nos. 2-5 deal with the differential

impact in terms of economic benefits and highlight some of the factors involved. Here we present a more summary analysis.

There is no doubt that some of the skills practised, for example, seed selection and treatment, lead to higher yields. The increases may be in the range of 10-25%. This is both demonstrated in experiments and brought out in a number of interviews with the farm women. But the survey data on yields obtained are inconclusive. In some cases the increase in yield (last year compared to average yields before training) is reported to have been considerably higher, in other cases there has actually been a decrease in the yields. This is owing to other factors that influence yields, particularly the variations in climatic conditions.

Table 6.6. Changes in cost of cultivation after training (per cent of farm women)

	Increased	Reduced	Same	No response	Total
WYTEP	26	31	38	6	100
TANWA	18	73	0	8	100
TEWA	58	25	1	7	100
MAPWA	32	53	13	2	100
Total	32	46	16	6	100

Source: Field survey

The skills learnt under the projects have different consequences for the costs of cultivation. Some imply small investments, some are cost-neutral and others are cost-saving. Table 6.6 shows that the resulting picture is complex and varies a lot from project to project. TEWA stands out as the only project where a majority of the farm women have actually had increased the costs of cultivation after adopting some of the skills. At the other end of the scale, almost three-fourths of the farm women trained under TANWA have experienced reduced costs after adopting the relevant skills. The most important explanation of this difference concerns the costs of chemical fertilizers, as can be seen in Table 6.7.

Table 6.7. Use of chemical fertilizers after training (per cent of farm women)

	More	Less	Same	No response	Total
WYTEP	12	60	23	5	100
TANWA	10	82	0	8	100
TEWA	52	33	8	6	100
MAPWA	12	68	10	11	100
Total	20	62	10	7	100

Source: Field Survey

For all the projects together, it can be seen that almost two-thirds of the trained farm women have reduced the use of chemical fertilizers after training. This is an important result, both because it entails savings and because it reduces the harmful impact on the natural environment. But of course the project is not the only factor influencing this. Another important factor is that in recent years the cost of chemical fertilizers has gone up (partly because of a reduction in the fertilizer subsidy). However, one fifth have actually increased the use of chemical fertilizers. If before they used very little or nothing at all, this may be a necessity in order to obtain reasonable yields. The difference between TANWA and TEWA in this respect is illustrative. In Tamil Nadu the farmers use considerably larger amounts of chemical fertilizers than farmers in much poorer Orissa. By using organic manure (Table 6.8), more than four-fifths of the TANWA farmers have been able to reduce the amounts of chemical fertilizers they use. By contrast more than half the TEWA farmers now use more chemical fertilizers because they used so little before that it affected their yields adversely.

Table 6.8. Use of farmyard manure after training (per cent of farm women)

	More	Less	Same	No response	Total
WYTEP	53	14	28	5	100
TANWA	84	9	1	6	100
TEWA	60	7	25	7	100
MAPWA	75	5	18	1	100
Total	68	9	17	5	100

Source: Field survey

Table 6.8 shows that more than two-thirds of the farm women use more farmyard manure than they did before training (and very few use less). Substituting farmyard manure

for chemical fertilizer is a positive result in both economic and environmental terms. It can be seen that this result is most pronounced under TANWA, least so under WYTEP.

Table 6.9. Use of labour in farming after training (per cent of farm women)

	More	Less	Same	No response	Total
WYTEP	13	12	70	5	100
TANWA	28	62	0	10	100
TEWA	54	6	33	6	100
MAPWA	34	12	52	2	100
Total	31	26	38	6	100

Source: Field survey

Table 6.9 shows that the implications of the adoption of agricultural skills for labour use are varied. For all the projects combined, about a third reported more use of labour and a slightly smaller group less use of labour, whereas for the largest group there has been no change. But again there are significant differences between the projects. At one end of the scale, TANWA had almost two-thirds reporting less use of labour. At the other end of the scale, TEWA had more than half reporting more use of labour. Again this is no doubt related to the different level of development generally and in terms of agricultural practices between Tamil Nadu and Orissa. The cost of hiring labour and the opportunity costs of labour in Tamil Nadu are much higher than in Orissa. Therefore labour-saving technologies are pursued vigorously in Tamil Nadu, while in Orissa the main concern is simply to maximise production by any means available, including the use of more labour.

Table 6.10. Husbands' views: Was the wife's training beneficial to the family (per cent)?

	Yes	No	Total
WYTEP	73	27	100
TANWA	95	5	100
TEWA	94	6	100
MAPWA	75	25	100
All projects	84	16	100

Source: Field survey

Table 6.10 presents the husbands' views on the benefits obtained by the family from their wives receiving training (based on 71 interviews). It can be seen that the overwhelming majority (84%) of husbands expressed the view that their wife's training had benefited the family. The figures are a little higher for TANWA and TEWA and a little lower for WYTEP and MAPWA. When asked to identify the benefits, most husbands quoted higher yields, and a good number mentioned less use of chemical fertilizers.

6.4 The role of Farm Women Groups and Self-Help Groups

In the most recent phases, all the projects have promoted the formation of Farm Women Groups (FWGs) and/or Self-Help Groups (SHGs). The exact modalities have varied somewhat from project to project, but in most cases the FWGs were initially formed as a means to improve the agricultural extension activities. Focusing on groups rather than individuals has had the advantage of creating a forum for mutual discussion, and with it, a group dynamic that is less dependent on the continued support of agricultural extension staff. In many cases, these groups have been transformed into SHGs, taking up savings and credit activities and other income-generating activities in addition to – sometimes as an alternative to – agricultural activities. In many cases, such SHGs have also been promoted by other development programmes, whether by donors, NGOs or government agencies. In some cases this has developed into an unhealthy competition between the agencies, using “seed money” to capture women for “their” SHGs. But more generally, the SHGs have proved to be important vehicles for the introduction of income-generating activities as well as eliminating money lenders and other middlemen through their savings and credit operations.

One third of the farm women in the sample were found to be members of a FWG/SHG, somewhat more in WYTEP and somewhat less in TANWA. Table 6.11 shows the extent to which these groups are collectively engaged in agricultural activities and other income-generating activities (IGA). In most cases it is a matter of either/or, but in some cases of both/and.

Table 6.11. Economic activities of Farm Women Groups/Self-Help Groups (per cent of groups)

	Engaged in agriculture	Engaged in other IGA
WYTEP	91	15
TANWA	82	61
TEWA	36	18
MAPWA	16	25
Total	66	28

Source: Field survey

It is noticeable that the vast majority of the groups in the two southern states are engaged in agricultural activities, whereas this is only true of a minority in the two

northern states. In terms of income-generating activities, the groups formed under TANWA stand out as being very active in this area. This is both because of the good opportunities in Tamil Nadu for such activities and because TANWA has been more successful than the other projects in creating vibrant SHGs.

6.5 Economic status of households

The farm women were asked: “Do you feel that your household’s economic status has improved since the training?” Table 6.12 presents the answers.

Table 6.12. Improved economic status since the training (per cent of farm women)

	Yes	No	No response	Total
WYTEP	48	51	1	100
TANWA	79	19	2	100
TEWA	73	22	4	100
MAPWA	84	15	1	100
All projects	69	29	2	100

Source: Field survey

It can be seen that more than two-thirds report improved economic status after the training, and less than a third report no improvement (which may also include deterioration). However, once again there is a striking difference between WYTEP, where only half report improvements, and the other three projects, where three-quarters or more report improvements. For WYTEP and TANWA, the percentage reporting improvements in economic status is highest for the most recent phase (which is not shown in the table). While in most cases improved economic status means higher income and improved consumption, in some cases it also entails higher savings or reduced indebtedness. In a large number of case studies based on 64 in-depth interviews, the four project reports provide more detail on the range of economic benefits obtained by the farm women.

However, since improvements in economic status have not necessarily been brought about by the training and extension activities of the projects, those reporting an improvement were also asked: “Is it – fully or partly – because of the training or because of other factors?” Table 6.13 presents the answers distributed according to the projects.

Table 6.13. Improvement in economic status due to training or other factors (per cent of farm women)

	Fully training	Partly training	Other factors	No response	Total
WYTEP	10	85	5	1	100
TANWA	30	68	2	0	100
TEWA	47	51	1	1	100
MAPWA	45	46	3	6	100
All projects	32	63	3	2	100

Source: Field survey

It emerges clearly that in around 95% of the cases in all four projects, the women report that the economic improvements are linked to the training. Of course this result has to be viewed in the context of an interview that has focused on the training. But nevertheless, this is a significant and very satisfactory result. For about two-thirds of women the training has been only one of several factors. This is only natural, and in some cases, no doubt, other factors have been more important. But for one third the training is stated to be the only factor behind the improvement, which is highly significant. There are interesting differences between the projects in this respect. For TEWA and MAPWA almost half ascribe the economic improvements exclusively to the training they received, whereas for TANWA it is only 30% and for WYTEP only 10%. This, among other things, reflects the differences in the levels of development. In Orissa and Madhya Pradesh, the projects have been particularly important in economic terms because in these states there are fewer other economic opportunities for the poor farm women and their households.

By contrast, there are more alternative opportunities in Tamil Nadu and Karnataka. Moreover, the particularly low figure for WYTEP no doubt reflects the generally lower level of impact of this project.

6.6 Differences in outcome and impact

The previous sections have highlighted the differences between the outcome and impact of the four projects in terms of economic benefits. In particular a remarkable difference between the results of WYTEP and those of the three other projects has been revealed. In a number of areas, the WYTEP results have been clearly less impressive than those produced by the other projects. We return to a discussion of this and the reasons behind it in the concluding chapter (Chapter 9).

But differences in outcome and impact are not just found between the projects: they are also found within projects, between districts, villages and groups, as well as at the individual level. The impact of a project is not only dependent on the project's approach and implementation, but also on other factors in the context, natural as well as societal. Natural calamities such as droughts strongly influence the results, and access to irriga-

tion is an important parameter. Cultural factors are important, notably caste and the “tribal factor”. Household dynamics play an important role, in particular the relationship between the trained woman and her husband and in-laws. Individuals have different capabilities and levels of motivation. All these factors work together and produce results characterised by differential impacts. Some women in all the states have benefited a great deal from the training and extension activities, while others have not been motivated or been able to put any of the methods into practice. Yet others have done so but have not been able to reap the benefits because of drought or other external factors.

The four project reports contain a very detailed analysis of some of these differences and must be consulted in order to obtain a complete picture of the impact in terms of the economic benefits derived from the training. Among other things they present 64 case studies of farm women illustrating the varied impact (both economic and in terms of empowerment). These cases build on a combination of the questionnaire interview and an in-depth interview concerning the women’s daily lives, their life stories, and the role the project has played in this. They have been selected so as to include both successes and failures. In any case a mixture of project factors, context factors and individual factors determines the outcome and impact at the individual level.

In all the states, two village studies were conducted at the end of the main survey, using a range of PRA and interview methods. The aim was to unravel the many factors in project implementation, village context and individual characteristics that have impinged on the impact of the project. These village studies are reported in the project reports.

Village study in Tamil Nadu

A particularly interesting village study was carried out in a village in Gudiyatham taluk, Vellore District, in Tamil Nadu. This is also referred to in the following chapter (on empowerment) and presented with much more detail in Project Report No. 3 (TANWA). In this village there was a very dynamic and successful Farm Women Group/Self-Help Group, and the village was selected for in-depth study because of this. The evaluation team spent two days in this village. The first hours were spent together with the FWG whose members gave a vivid and detailed account of their activities. Then, together with these women, we started a transect walk through the village. However, after a walk of less than 100 metres on the main street, all the FWG women stopped and did not want to go further. The evaluation team soon realised that we had crossed into another section of the village inhabited by a different caste. Through individual and group interviews, wealth ranking and social mapping in both parts of the village, we gradually built up a picture of the situation in the village and the role the TANWA project had played in this.

All the FWG members belong to the farming Naidu caste, and it turned out that this caste owns most of the village land, in spite of being only around 10% of the population. The remaining 90% are Dalits (SCs). Only relatively few among them own land, and many work as agricultural labourers for the Naidus.

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Apart from this there is hardly any interaction between the two groups. The difference in perception is interesting. The Naidus believe that the Dalits are better off, being pampered by the government with job reservations and other favours. The Dalits feel that the Naidus are better off because they own most of the land and other assets in the village like the shops. Although there is some truth in both views, objectively the Naidus are certainly better off on average. Clearly there is a good deal of tension between the two groups, and it is inconceivable for children from one caste to play with children from the other caste.

Our investigation revealed that it was only Naidus who had benefited from the project. The much larger group of Dalit households had been entirely bypassed. The relatively few Dalits owning land had never been invited to join the project. There was some envy, and in a sense the project had inadvertently contributed to the simmering tension.

Based on the TEWA village studies, Table 6.14 provides an overview of the characteristics and factors that have contributed to success and failure in the two selected villages in Orissa.

Table 6.14. TEWA (Orissa): Factors contributing to success and failure at village level

	Successful village	Unsuccessful village
Village characteristics	<ul style="list-style-type: none"> - Multi-caste - Hilly area - Physically accessible - Politically developed - Inter-village relations cordial - Lower level of education - Inputs from other development projects 	<ul style="list-style-type: none"> - Multi-caste - Coastal - Physically inaccessible - Politically divided - Caste differentiation - Higher education - No inputs from other development agencies
Role of women	<ul style="list-style-type: none"> - Women participate in agriculture - Women eager to participate in project - Women eager to adopt project - Women's participation, e.g. in panchayat 	<ul style="list-style-type: none"> - Higher caste women do not work on the fields - Rigid behavioural prescriptions for higher caste women - Higher caste women not working on the fields
Livelihood, sources of income	<ul style="list-style-type: none"> - Agriculture main source 	<ul style="list-style-type: none"> - Agriculture main source but after cyclone shift to share cropping, wage labour and business
Land ownership	<ul style="list-style-type: none"> - Brahmin, Khandayat main owners - SC, ST sharecroppers - SC and Bhatra (ST) are landless 	<ul style="list-style-type: none"> - Khandayat are land owners - SCs: tiny landowners, landless and share croppers

	Successful village	Unsuccessful village
Perceptions of the project	<ul style="list-style-type: none"> - Women are generally aware of the project - Support from male folk - 'Didi' LVAW and project workers highly appreciated 	<ul style="list-style-type: none"> - Women are not aware of the TEWA project - Male members not aware of TEWA - The project left no impression
Implementation strategy	<ul style="list-style-type: none"> - Proper targeting - Project meets practical needs of women - Lady village worker stays in village - Supportive supervision of LAO - Functional SHG 	<ul style="list-style-type: none"> - Improper targeting of women who do not actually cultivate the land - Women are not aware of practical needs - Village worker does not stay in village; random visits - No supportive supervision - No group formation
Other factors influencing success	<ul style="list-style-type: none"> - Access to extension services - Access to micro credit - Not influenced by modernisation - Inputs by other developmental programmes - Less disaster prone 	<ul style="list-style-type: none"> - No access to extension services - Access to micro credit just started - Influenced by modernisation - No inputs from other developmental programmes - Disaster prone

Source: Field data

Obviously a number of factors in the table are very specific to the Orissa context. It is interesting that impact has been much greater in the interior village with a mixed population, including many Adivasis (STs), than in the coastal village, with its many high-caste women. This is a general feature regarding TEWA, which has proved irrelevant to certain higher caste women who are culturally prohibited from becoming involved in farming activities. However, it contrasts with MAPWA, which has generally had less impact among Adivasi women. The reasons are to be found in both the project approaches and differences in the contexts, where MAPWA's standardised training was found to be of little relevance to Adivasi women from very poor marginal farms.

More generally, the table shows the importance of village accessibility, caste composition, proper targeting, links to other programmes and rapport between the female extension worker and the farm women.

6.7 Concluding remarks

The previous sections have documented the outcome and impact of the projects in terms of economic benefits. There is no doubt that, generally speaking, the trained farm women have benefited from the training and the adoption of a range of the agricultural skills they have learnt. This has led to increases in yields for the main crops (although the yield data were inconclusive), savings on chemical fertilizers, and a number of other improvements in their agricultural practices. While in some cases increased production

has led to a greater marketable surplus, in other cases it has led to improved consumption and greater food security. About one third of the farm women in the sample were found to be members of FWGs/SHGs. For these women, the groups have provided opportunities for collectively pursuing agricultural activities or other income-generating activities, as well as becoming involved in credit and savings operations. All this has had a positive impact on their economic situations.

It has not been possible to make more exact estimates of the economic gains obtained by the trained farm women and their households from the projects. One reason for this is the lack of comparable baseline surveys. Another is the fact that such gains are influenced by a number of other factors, including notably the role played by the farm women's husbands (in agricultural decision-making) and the vagaries of the weather. Primarily because of the weather factor, the data on yields proved inconclusive. However, the project reports contain a large number of case studies (64 in all) at individual/household level, which demonstrate that economic benefits range from zero – or even losses (due to crop failure) – to very substantial increases in net income. Examined in combination with the survey data, this can be used to provide an approximate estimate: roughly one third of the trained farm women's households have experienced substantial economic benefits, another third more modest economic benefits, and the remaining third minimal or no economic benefits or even losses. It is noticeable that poorer as well as better-off women are found in all three categories. Overall we may conclude that the projects have contributed to poverty reduction.

However, the study has revealed important differences between the projects in terms of reaching the target group, which, of course, has important implications for the impact in terms of poverty reduction. TANWA and TEWA were found to be well targeted, with more than three-fourths of the sample belonging to the target group of small and marginal farm households. By contrast, WYTEP had almost half and MAPWA more than half the sampled farm women falling outside the target group, primarily because of larger landholdings. This is a matter for serious concern. Moreover, the analysis has shown that in a number of areas WYTEP has had less impact than the other three projects. We return to this in the concluding chapter (Chapter 10).

Chapter 7. Outcome and impact: empowerment

When assessing the outcome of the projects in terms of the empowerment of women – that is in terms of their contribution to increased agency and strategic life choices – it is appropriate to put this in the overall context of rural women’s agency and choices. A prominent feature of any rural Indian woman’s life is a general denial of participation in decision-making in the most important decisions affecting her life, including her age at marriage, her partner in marriage, the education of their children, and going outside the house. For example, some of the women interviewed report having been married off at the age of twelve.

However, this overall picture does not imply that women do not exert any agency at all. They do, but this is certainly not always attributable to the training projects. For example, recent decades have shown a gradual process of the feminisation of agricultural labour due to out-migration and the seasonal migration of men. Also, changes in the wider society are impacting on village women more than before. In some areas women are seen making strategic life choices more than in the past, for example, in planning their number of children by using contraceptives.

On the other hand, the questionnaire-based survey and the in-depth interviews provide a wealth of information showing that trained farm women do take action and make choices more than before the training and sometimes explicitly refer to the trainings as having triggered these changes.

7.1 Daily activities and workload

In the in-depth interviews carried out in the four states, women were asked to say what their working day looks like (daily activity profile). Women listed the household and agricultural work they performed in a typical working day. Starting early morning, they do the cleaning, cook, collect water, look after the cattle and send their children to school. In between the household chores they go to the fields to work on their own land or as wage labourers. In the evenings they may work on additional income-generating activities. Their workload is tremendous, and they do not have any free time for themselves.

7.2 Labour participation in agriculture and the gender division of labour

The projects have made a positive contribution to the increased participation of farm women in agricultural activities. The training projects brought about a change in the gender division of productive labour, with women taking part in agricultural activities on a larger scale than before. The survey and the in-depth interviews give a clear picture of women actively engaging in agriculture, and the training projects have given a strong impetus to their agricultural activities. Men have not increased their agricultural labour – on the contrary.

One of the project objectives is an increased recognition of the role of women in agriculture. This objective has been achieved, in the first place in terms of the increased recognition of women's farm work inside the family; in addition, female labour in agriculture has increasingly gained recognition and policy attention at village, district and state levels.

7.3 The gender division of labour in the household

While women have increased their share of agricultural labour, there is no evidence that other family members have taken over any of their household chores. On the contrary, one out of three women mention that their workload at home has also increased, while half of them report that things have stayed the same, and a small number that their workload at home has decreased.

Half the husbands say that they faced problems when their wife went away for training. The major problem they report is in cooking food, and for some men this is additional to having to look after the children and the livestock. When women joined the training this caused a temporary shock in the otherwise traditional gender division of reproductive labour, but there is evidence that this had no lasting influence. Incidentally some men reported that they are happy with the village-based training rather than the institutional training because this does not affect their wives' household activities .

7.4 Workload and choice

Women sometimes make a deliberate choice to take up agricultural activities, thus increasing their workload. For example, in one group discussion, TANWA women reported that the activities they are taking up collectively on behalf of the SHG increase their workload considerably. They come together in evening hours to produce shampoo, agarbati sticks and candles for marginal profits. They have decided to do this, however, because the lack of any alternative sources of income does not give them other options. They also find that working together in the evenings gives them the pleasure of meeting each other and brings them a sense of collectiveness.

TANWA village study:

... It has given them a lot of grit and determination to continue their non-agricultural income-generating activities even if there were enough rain to pursue agriculture. The unanticipated outcome of the income-generating activities in the evening hours is sitting together talking, getting out of their homes. Also, it has given them happiness and fun to work in the evening collectively. *"It is like in the traditional village"*

7.5 Agency and choice

There are numerous examples of agency being exerted by the farm women interviewed in the context of, and often triggered, by the trainings, starting with joining the training

itself. Several women reported having met initial resistance from either their husbands or family members. However, this resistance seems to have been gradually overcome when the women actually implemented the skills, and family members realised the benefits accruing from the new methods they had introduced.

Asha Bai Singore in Madhya Pradesh: “..I am illiterate...In the second day of the training I got some written material and showed it to my husband to read it out for me but he refused to do so. ...despite this I continued with the training. Now the family is very happy. It is getting good crops for the last several years. The family now can make a distinction in land productivity before MAPWA and after. I am not facing any opposition from the family...I am getting continuous help from my husband ... this year he did the NADEP compost on his own

Several women say that before they were married they were not used to working in the fields. Men often migrate away, so there are long periods when the women are take complete charge of family affairs and the land. Nevertheless, women often require persistence and negotiating power to join and continue participating in the training. In doing so, they are challenging gender relations at home.

7.6 Women’s changing role in decision-making

A majority of women report that since the training they have acquired a greater role in decision-making. Two out of three women mention having a greater say in farm-related matters and family affairs than before (see Table 7.1, below). Their role in taking decisions about introducing new technologies, starting a new enterprise or buying assets has increased considerably. Also, they are now much more involved in decision-making regarding their children’s education and the age of their daughter’s marriage. The figures suggest that their influence in farm matters goes more or less hand in hand with the increase in their influence in family matters. Half the women report joint decision-making, with 10-20% being the main decider. Whereas the women are modest about their improved status in taking decisions, their husbands unanimously state that they have a much bigger say. In their perception they are consulting their wives on agricultural, financial and social issues more than before the training. Half the men now regard decisions on family matters as something they do together with their wives.

Table 7.1. Farm women’s perceptions of changes in self confidence and decision-making

Greater self-confidence in farming activities		Greater participation in farm level decision making		Greater participation in family decision making		Greater awareness of village matters	
yes (%)	no (%)	yes (%)	no (%)	yes (%)	no (%)	yes (%)	no (%)
82	18	67	32	71	28	57	42

“No response” and “not applicable” constitute about 1 percent for each category.

The changes are most spectacular in Orissa and Madhya Pradesh (see Table 7.2, below). Remarkably, in WYTEP the impact on women’s empowerment in terms of increased participation in decision-making has been significantly below average.

Table 7.2.. Percentage of women reporting playing a major role in decision-making by project and area of decision-making

	WYTEP (%)	TANWA (%)	TEWA (%)	MAPWA (%)
Introducing new technologies on the farm	31	73	68	63
Starting new enterprise	32	72	66	67
Buying major assets	39	74	74	71
Girls education	37	71	81	79
Boys education	36	78	83	84
Daughter’s marriage	46	73	80	83
Other matters	50	83	85	80

Figures indicate sum percentages of women reporting joint decision-making and main decision-making.

7.7 Self-confidence in farming activities and self-esteem

When asked whether they feel more self-assured than before, women answer by a wide majority (82%) that they feel confident about their new responsibilities, which involve them in trying out crops, buying agricultural implements and starting new techniques. In addition, they have gained self-esteem in a more general sense: most women say that participating in the trainings has boosted their self-respect. They have also acquired respect from others, being more respected within the family and the village than before.

Nagamma, a trained farm woman interviewed in Mandya District, Karnataka, is a widow. She said that WYTEP transformed her life completely. Yields improved by 25%. She affirmed that: *“These were all economic benefits of the training. But for me, more than this, training has given me more self-confidence and hopes in my life, and has made me a social worker”*

7.8 Changes in social relationships; perceptions on changes of status

Half of 545 women interviewed reported that their relationships with their husbands had changed; in Orissa this was reported by as many as two out of three women. The evaluation did not find any evidence of a change of gender relations in a negative sense. In the reality of life of rural Indian women, this is a remarkable finding reflecting a transformation of gender relations at the household level and a change of basic life conditions of farm women.

Has the status of women in their community changed in any way since the training? The research data are somewhat ambiguous on this question. In the survey a majority of the women interviewed (60%) think they are not perceived differently within their community. A comparison of project and non-project villages in terms of the role and status of women shows a certain increase in the status of trained farm women. In in-depth interviews, women report that they are now being regarded as experts on agricultural methods, that others are seeking their advice and that they have won the respect of the community. Some women mention that they are perceived as role models for others. On the other hand, in terms of gender relations at the community level, there may have been no noteworthy change. To quote one of the project reports (MAPWA): *“In the village there is no substantial change in the attitude towards women. Men decide everything and women have to accept whatever a man says”*.

7.9 Mobility, going out, courage to speak to outsiders

The training projects have certainly contributed to women's empowerment in the sense of increasing their mobility and expanding their horizons: a large majority of the women are adamant about this project outcome. The trainings provided a platform for meeting other women, including women from different sectors and castes. Women mention that they feel freer than before to attend meetings and talk to outsiders. The evaluation found numerous examples in this respect, ranging from attending the institutional training to marketing their agricultural products in nearby or district markets. In some projects exposure visits were a project component. These visits have been evaluated as an effective learning instrument, provided the visit does not get bogged down in technical matters.

7.10 Caste barriers

The adoption of skills follows a certain caste pattern: general caste and some OBC women are subjected more to inhibiting gendered prescriptions and restrictions. As a consequence, some of the skills taught to them were not put into practice. In Orissa, forward caste and some OBC women tend to adopt only those skills that allow them to work close to the home, not on the fields. On the other hand, the training projects have challenged the caste system in several ways. In Madhya Pradesh it was observed that the project contributed to the reduction in purdah (seclusion). Although caste barriers still exist in several places, they have also been reduced to some extent because different caste women came to the same platform during the training. Going outside the home in itself already implies challenging caste prescriptions.

7.11 The articulation of needs and interests: demanding access to services

The projects have achieved the objective of increasing farm women's access to the General Extension System. In general, women report that, thanks to the projects, they have greater access to information, and not only on farm-related issues. There is considerable evidence that women in the process of participating in the training projects have become more aware of their needs and their (lack of) access to services and more vocal in demanding them.

There is a clear linkage between increased awareness of government services and the experiences the women have acquired in the training projects. Having experienced the dedicated and skilful performance of the female training and extension officers, the women became openly critical of the poor performance of some male officers. A large number of farm women expressed their dissatisfaction with the sporadic number of visits of male workers. It is quite revealing that a considerable number of women (in Orissa as many as 30%) openly said the services of the male extension officers were sub-standard. This is a powerful indication that the training projects have had an impact on increasing awareness about services. Not only are women situating themselves at the receiving end of government services, they are also articulating their interests and expressing their dissatisfaction when government services do not perform according to their needs.

There are numerous examples of women discussing or overtly demanding greater access to services. These examples range from the first cautious steps in accessing services to, in some cases, collectively exerting social pressure to be granted the required amenities and services. It has been reported that women have learnt to negotiate with government officers and win them over to their side. As a consequence, in several villages the project is now being implemented with the collaboration of some committed government officers who have been inspired by the women's energy.

Attitude learning and gaining respect from bank officials thanks to TANWA Self Help Group

During the village study in a village in Vellore District, Tamil Nadu, two women, Rajamuni and Sudha, performed a role play on how it had been to go to the bank for the first time.

"It was our first time to go to the city, and it was our first time to go to the bank. We both trembled, we were nervous; we did not dare to go inside". "My belly was itching".

"I pushed her: you go first, but she pushed me: no you go first for you are older. OK, I went first but next day I pushed her: now you go first."

"We were invited to sit down but we did not dare to sit down. We had to wait. Next day we had to come back. On day 3 we saluted the bank officer for the previous day we had noted that to some people they say "good morning". So we said "Good morning" and we saluted them. Then we found that if we say "Good morning", they also look at you and they say "Good morning ma'am". And then they pay attention to you. The moment you greet them they think, "Oh, I have dealt with that person before", and they pay attention to you".

"Now we have worked with them, and they know our group". (...) "Nowadays the bank officials say "Good morning ma'am' when we enter, and they give us priority."

7.12 Literacy and perceptions on education

One third of the trained women were illiterate, and the proportion of illiterate trainees is even higher in Orissa and Madhya Pradesh (see Table 6.5). The projects have managed to train a group of women that has otherwise been left out by the education system. For women with a spirit of enterprise, whether literate or not, they formed a great source of empowerment, as is illustrated by one of the women interviewed in MP:

“I am the only one in the village to take training programmes [...] I am illiterate and have no idea of the measurement required for NADEP compost making. I learnt to do the measurement using my fingers. I am now the village expert in the production of NADEP and the villagers consult me for assistance.”

The trainings have also created an incentive for women to educate themselves; for example, in TANWA women recalled doing exercises in counting weights and fixing prices before going to the market to sell their produce. Remarkably, the research data provide no unequivocal support for the idea that literate women are more empowered than illiterate women. While in TEWA illiterate women report greater involvement in decision-making, in the other three projects literate women report a stronger say in decision-making. The TEWA “anomaly” is related to a large presence of largely illiterate Adivasi (ST) women with a strong role in decision-making. The value illiterate women place on sending their children to school is tremendous, no matter whether girls or boys. Interestingly, the team found that they sometimes pushed for girls’ education even more than for boys’.

7.13 The formation of women’s groups and collective agency

Group formation was not part of the project approach from the outset, but was generally included as an essential component in the recent phase of the projects. The Farm Women’s Groups were initially perceived as skill-dissemination groups, but were later converted into Self-Help Groups covering a wider range of activities, notably savings, credit and income-generating activities. Thousands of groups have been formed by the four projects; some have since become non-operational, while others have been flourishing for years. The overall extent of participation of trained farm women in women’s groups is rather limited: of the women interviewed in the survey, only one out of three is member of a FWG/SHG, and the team found that in many villages there is no SHG at all. There are considerable differences both between states and within them. In WYTEP, group formation has been considerably less successful than in the other three states due to poor follow-up by agricultural officers. As a result, many groups are now defunct. In TANWA groups have been most active, but TEWA and MAPWA provide a very mixed picture. Every group has its story, and this section will attempt to do justice to the variety of experiences the team has observed.

The groups are generally involved in agricultural activities, as well as in savings and credit activities, through which they play a role in mutual assistance. The groups have been an important vehicle in creating access to banks and loan schemes. It is evident that access

to formal credit has decreased their dependency on traditional money-lenders. Loans to members are decided in group meetings and are given to those in real need. The interest rates charged by the group are on average 2% (as against 5-10% monthly by money-lenders). Social pressure is exerted to return the loan in time, and if anyone defaults she will be removed from the group. Of course collective responsibility entails a risk of very poor women being excluded from a group in order to reduce the risk.

Women invariably refer to these savings and credit activities as having been instrumental in increasing their family savings and reducing indebtedness. Apart from savings and credit, the range of activities taken up by SHGs is rather limited. The picture that emerges from the survey is not very positive. The groups are sometimes engaged in other income-generating activities; only a few groups (one in five) are inclined to help disadvantaged members; they are hardly involved in marketing products or production activities or in purchasing inputs collectively; and there is no farming credit participation, though they sometimes borrow money from other groups. Moreover, the level of linkage with other village-based programmes or organisations is virtually nil: there is no participation in school committees, joint forest management groups or political parties, and rarely any in women's groups (*mahila mandal*) either.

Except for Tamil Nadu, the overall picture is one of women's groups that are active in savings and credit and have a social function for the women involved, but are lethargic and inward-looking when it comes to addressing women's strategic needs. A lack of training and of leadership may be some of the factors responsible for their limited functioning, but others include internal conflicts, caste restrictions and the lack of ability to address these. It may also be significant that they are still to some extent target-driven, and the projects have a rather technical approach to organising women. Also at issue is certainly the underlying project philosophy, which conceives the role of women's groups more in relation to skill dissemination but has not created the modalities for a more catalytic role for these groups.

It has proved very difficult to form women's groups across caste boundaries. The majority of SHGs are confined to a single caste community. In one Tamil Nadu village study, the team observed that the SHG was restricted to the Naidu caste and had bypassed the majority Dalit (SC) village women, with the result that the project's impact was restricted to the Naidu. There are, however, particularly in Tamil Nadu, a number of farm women groups consisting of different castes, which have reportedly not suffered any inter-caste conflict.

Generally speaking, female extension staff belong to higher castes than the farm women with whom they are interacting. On the whole, it was the evaluation team's impression that the staff members related well to the farm women, but this aspect of the caste factor cannot be disregarded either.

The WYTEP project report recommends that greater efforts should be made to understand the particular needs and requirements of Dalit women and to promote the formation of FWGs consisting only of Dalit women. It concludes that perhaps caste-wise homogeneity is necessary to maintain group solidarity. However, it was also noticed that, in view of the systematic communalisation threatening the very roots of Indian society, one of the challenges for the future is the formation of women's groups across caste boundaries.

While clearly bringing out the limitations of the women's groups, the evaluation also highlighted several success stories. The evaluation team found FWGs developing into a platform for the village women to discuss and decide about village development issues and socio-cultural issues like marriage and other family matters. There are examples of women groups organising anti-alcohol campaigns, stopping the sale of liquor in the village and bringing down the level of alcoholism in tribal villages. In one case, the women reported that the level of domestic violence had gone down. The value of this kind of action can hardly be overestimated in the context of farm women's survival strategies. As one of the women put it:

"... Those droughts we can manage. Our men drinking we can't manage...."

In one village the women acted as a monitoring group, uncovering a case of fraud committed by a corrupt kindergarten worker and managing to have her replaced. There are examples of FWGs inspiring other women to form women's groups of their own. Their driving force is the enthusiasm and the persistence of the women, this being an important factor in their sustainability.

Women in the Tamil Nadu village study: "... if there were any possibility of the group being disbanded, we would not go back to our previous way of life but would fight to keep the group together!"

One of the women interviewed in Madhya Pradesh mentioned that, with the encouragement of a female extension officer, they formed a SHG which now takes up social and village developmental issues, like road construction, sinking a tube well or building a bridge, with the *panchayat sarpanch* (local assembly chairman). They also take up issues like internal family conflicts, children's education and marriages. The most active FWGs/SHGs were found in Tamil Nadu, where in many villages women are collectively exerting social pressure for the benefit of the community by demanding community facilities like schools, ration shops, community centres, bus connections, hospitals and water tanks. One interesting example was a village where the women's group got three more teachers appointed to the school, which had classes up to standard five but was being handled just by two teachers. This was achieved by persuading the well-to-do families of the village to donate the funds to meet the salaries of these newly appointed teachers, educated young people in the village.

In recent years there has been a mushrooming of SHGs, partly in response to government schemes, and creating a certain competitiveness among SHGs in some villages. This indicates that there should be a better system of integrating parallel SHGs. However, SHGs formed by the training projects (TEWA, WYTEP) are said to be strikingly different from SHGs formed under governments schemes (TEWA, WYTEP) in being more vocal, and they are often a source of inspiration for the others.

7.14 Political awareness and representation

Self-Help Groups are a platform through which women have in some cases acquired the ability to assume leadership roles. Women seem to be more familiar with village affairs than before. Some women mention increased political participation. In some villages, trained women have contested local *panchayat* elections and have become ward representatives; in exceptional cases, the *panchayati raj* has become a platform where women articulate their collective interests. Women report that since the village training experience, their suggestions have well been well received by the *panchayat* administration. In the *panchayats* themselves, women are demanding better services from the institutions working in the village.

7.15 Disempowerment

The training projects have to some extent resulted in disempowerment for the women involved. The issue the women mention first and foremost is that their workload has increased. This is reported for all states, all projects and, irrespective of size of landholding, caste and family status.

In all projects, it has been observed that some trainings have not been based on the local requirements or needs of the participants. As a consequence, they have not always been exploited optimally by the farm women. Women have learned skills they cannot use, spending their time, labour and money on investments which have not generated an income, and this has been a very frustrating and therefore disempowering experience. Sometimes idle expectations have been raised that financial compensation would be forthcoming for following the training (WYTEP). This is particularly serious, as these failures mostly relate to trainings for the more marginalised sections of society.

There have been other, project-external reasons why the trainings and investments did not generate the expected results, such as climatic conditions (in Tamil Nadu, the major frustration was extensive drought for three consecutive years; women borrowed money for digging tube wells but did not find any water) and political developments (e.g. the closure of the “farmers market” in Tamil Nadu).

Certain marginalised communities, in particular SCs and Muslims, have experienced exclusion from all four training projects. This has sometimes contributed to the disempowerment of poor women and increased disparities at village level. For example, in TANWA in some villages the project was more beneficial for farm women with irrigated land than with rain-fed land.

The empowerment of some women may result in disempowerment of others, for example, when labour-saving techniques make the labour of landless women redundant, or when farmers decide to cultivate their land rather than giving it out in sharecropping arrangements. The evaluation did not find any evidence of these kinds of development. On the contrary, some techniques are reported to require more labour.

The disempowerment of women may be the result of negative reactions by men to changes in gender relations. This may happen in either subtle or confrontational ways and may take the form of isolation, keeping the woman out of decision-making processes, verbal abuse, domestic violence or other gender-based violence. The evaluation team

has been alert to these kinds of repercussion, but found no evidence that it has been happening in any significant way in any of the projects.

It is predictable that village women who have observed the success of the women participating in the trainings have sometimes felt that they have been bypassed by the projects in a more personal way. Also, whenever Self-Help Groups are formed, there is a limit to the number of women who are prepared to participate, and this in itself has created feelings of exclusion. Sometimes women felt neglected by the agricultural officer or lady village worker. This has been particularly problematic when the agricultural officer was of a higher caste than the village women or gave preferential treatment to influential village women. This has certainly happened, but in general the opposite is true: agricultural officers have established egalitarian and often inspiring, even empowering contacts with the village women.

Participating in trainings and in women's groups is potentially an empowering experience for women, through which they may learn skills, self-respect and mutual support. But this depends on the training methodology, the trainers/facilitators, group composition, and so on. If the message is delivered in a standard package and women are treated as mere targets, then, in spite of the content of the message, what is actually communicated is the opposite of empowerment. The evaluation team observed a training session where women were taught a module on "women's leadership" in a most disempowering way. It is recommended that more attention be paid to the methodological aspects of training.

7.16 Concluding remarks

In many ways, the projects were a "first-time experience" for the women who joined them. This comes out very clearly from the in-depth interviews, where women refer to the experience as being the first time they had gone outside their village, did something openly against the approval of their in-laws, followed a training, had any education at all (in the case of the illiterate), became involved in technical farming matters, learnt to count, went to the market to sell their produce, were involved in decision-making on agricultural matters by their husbands, joined a women's group, spoke to outsiders and officials, undertook something together with women from different communities etc. This first-time experience, which was not a one-time experience and also not something they went through individually, triggered an irreversible change in self-perceptions and in the transformation of gender relations with husbands and in-laws.

Participation in the trainings has been an important learning experience. The trainings have provided a platform for meeting other women, including women from different sectors and different castes, and for widening opportunities. Women report that participation in the project has increased their mobility, and they feel freer than before in attending meetings and talking to outsiders.

Half of the women responded that they were more aware of village matters than before. In rare cases, this may have even contributed to increased political participation: some of the trained women have contested the local *panchayat* elections and have become ward representatives or village *sarpanch*; in exceptional cases, it is reported that the *panchayat* has become a platform where women can articulate their collective interests (e.g. sanitation rather than infrastructure).

It is fair to say that, while the projects have built up women's abilities as skilful and self-confident farm women and transformed gender relations at the household level to some extent, in a limited way they have also triggered mutually supportive social processes and in exceptional cases contributed to strategic change. However, these changes should not be overestimated: the evaluation also indicated that there is little co-operation on the part of the men: the projects have hardly included men in the process of transformation, there is considerable resistance from some men, and in most cases husbands, in-laws, local elites and bureaucrats still control decision-making.

In every state, a number of in-depth interviews were held with trained farm women to obtain an insight into the reasons behind individual successes or failures. The in-depth case studies were thoroughly analysed, and a number of underlying factors contributing to successes and failures are worth quoting (see table 7.3).

Table 7.3.. Empowerment: underlying factors in successes and failures

Factors in success	Factors in failure
1. Effective training	1. Ineffective training
2. Need-based training	2. Training not need-based
3. Good rapport with AAO(FW)/LVAW	3. Bad rapport with AAO(FW)
4. Group concept well explained and understood	4. Group concept not clearly explained
5. Effective follow-up after training	5. Women not interested or coerced to follow the training
6. Spirit and enthusiasm of the women	6. False promises about monetary benefits for attending the training
7. Entrepreneurial attitude of the women	7. Male dominance and lack of support from husband / family
8. Leadership of the SHG	8. No follow-up after training
9. Wholehearted support from husband / family.	9. Poverty, lack of land
10. Close co-operation with & support from JDA	10. Group conflicts, infighting
11. Appropriate selection of farm women in accordance with criteria.	11. Lack of leadership
12. Forward and backward linkages for group activities	12. Caste divides
13. Group activities pertaining to different spheres (economic, social, political)	13. Group activities not pertaining to rights issues, empowerment issues, gender issues.
14. Group activities including mutually supportive social action, collective action.	14. Dry regions, successive droughts

The training projects have managed to provide a strong impetus to the formation of farm women groups. Nonetheless, the majority of the trained women are still not participating in these groups. Although some of these groups are very active, others have become defunct. There are considerable regional variations in the number and the type of women's groups. Most of the Self-Help Groups are involved in savings and credit activities, thus addressing the practical needs of women with sometimes far-reaching strategic consequences when this has helped them stay out of the hands of money-lenders and middlemen and prevented them from falling into poverty. Mutual assistance in savings and credit schemes has been an invaluable learning experience for the women and has boosted their self-respect, their sense of group belonging and the respect they have won from local and bank officials. Through their women's groups, women have

managed to address fundamental vulnerabilities stemming from their gender, socio-economic status and community background. Where this has happened, the projects have made a major contribution to the empowerment of women.

Most groups have not moved beyond savings and credit: in these cases their transformative potential from an empowerment point of view is limited. Some groups did take up value-addition and productive activities, while others became platforms for social agency addressing the practical needs and interests of the women. Some of the practical changes brought about became entry points into a process of transformative change, with women becoming aware of their needs and of their potential as a group, building up their collective strength and mobilising for strategic ends.

It is difficult to conclude that transformative change has occurred because of the way the projects have been designed, that is, that this impact was built in as a project component. This would convey the wrong impression. The projects could have been much more effective in facilitating women's empowerment. At least in the way they have been implemented, they have tended to see and treat women as "beneficiaries" and "targets" rather than as "agents".

It is significant that where transformative change has happened, this is always related to personal factors: the enthusiasm of the women, the charisma and leadership qualities of some of them, skilful and dedicated female extension officers, warm personal relationships between the female extension officer and the women, or personal support from a gender-sensitive and committed government official who has put his or her shoulder to the project. Important above all, has been close co-operation between committed individuals at various levels – the village, extension officers and people higher up the bureaucracy. This personal factor cannot be overestimated.

The training projects cannot be regarded as strategic interventions, catalytic in the sense of bringing about a process, a grassroots women's movement, which is being continued by the women themselves. The projects have not proved to be catalysts in the sense of causing "ripple effects" in areas other than those of the immediate project objectives (training farm women). They have not, for example, addressed fundamental gender issues like the gender division of resources (ownership of land and agricultural assets) or systematically challenged vulnerabilities arising from subordination such as gender-based violence. Similarly, they have not challenged class divisions or communalism or addressed participation in political processes such as water management committees. Finally, they have not contributed to the formation of producer groups or tried to bring the women's groups to a higher level by broadening their spectrum of activities or building collective strength through the formation of federations.

An evaluation of the impact on women's empowerment should not discount the strategic changes mentioned above. However, it would be demanding too much to criticise the projects for not meeting empowerment standards which did not form part of the projects' objectives. Putting new technologies in women's hands has certainly had immense results for the trained farm women, in terms of both their economic advancement and to some extent in changing gender relations. The projects must be given full credit for that.

On the other hand, these strategic changes cannot be overlooked in assessing the sustainability of the project, understood as a process that is ultimately self-sustaining and

no longer dependent on outside interventions.. If the aim of the projects is to bring about sustainable change, then these “ripple effects” should be built into them, not only in their philosophy, but also in how they are implemented.

Chapter 8. Impact: institutions and policies

When the oldest of the four projects, WYTEP, was planned around 1980, all agricultural training and extension activities in India were directed at male farmers, and there were hardly any female staff members in the extension service. Moreover, the prevailing approach to extension was the Training and Visit (T&V) method promoted by the World Bank, which concentrated on delivering crop-specific messages to larger farmers, especially those with access to irrigation and a range of other inputs such as chemical fertilizers and pesticides. Little attention was given to dry-land farming and the needs of small or marginal farmers.

WYTEP and the other three projects were innovative in targeting women from small and marginal households and in training and inducting a relatively large number of female agricultural extension officers into the General Extension System (GES) in the four states. However, throughout most of their lives, the projects continued to rely primarily on the T&V method, with its top-down communication of standardised, crop-specific messages. Only in recent years have the projects gradually introduced a more broad-based approach to training and extension and focused on group formation and more participatory methods. In making this change, the projects have followed the general trend within the GES, and in these respects it cannot be said that they have been particularly innovative.

It is quite clear that the projects have had an impact on a number of institutions in the four states. They have also influenced policies at both the state and national levels.

8.1 Impact on Departments of Agriculture and extension policies

First of all, the projects have had a significant impact on the Departments of Agriculture (DoAs) in Karnataka, Tamil Nadu, Orissa and Madhya Pradesh. In all four states, a new cadre of female extension workers has been built up, designated Agricultural Officers (Farm Women) in Tamil Nadu, Agricultural Development Officers (Farm Women) in Madhya Pradesh, Assistant Agricultural Officers (Farm Women) in Karnataka and Lady Village Agricultural Workers in Orissa. Only in Tamil Nadu was it possible to recruit women with an academic background in agriculture for these posts. In Karnataka the majority had a background in home science and in Madhya Pradesh in science. In Orissa, since their background was just matriculation, they were placed at a lower level in the hierarchy. It has taken a good deal of effort to have these women accepted by their male colleagues and superiors, but today they appear to be firmly entrenched in the DoAs, a major achievement in itself.

At the same time, the projects have contributed to mainstreaming gender issues in the DoAs. The projects and the presence of female staff have had an impact, and moreover a number of training sessions, workshops and courses have been held for male staff members. But all the DoAs are still overwhelmingly dominated by male officers, many of whom have shown resentment and even openly resisted the new emphasis on the role of women in agriculture. It is clear that the efforts of the four projects in this regard have been insufficient really to accomplish the required degree of gender sensitisation on a large scale. However, there tends to be good support for these efforts among male officers at

the highest levels in the DoAs. Thus it is likely that such efforts will continue, even after the projects have been terminated.

At the national level, a new “Policy Framework for Agricultural Extension” was adopted in 2001 (GoI, 2001). Excerpts from this are included as Annex 6 in the Project Report No. 1, *Evaluation of Training and Extension System*. The new policy framework marks a change from the T&V approach towards a broad-based farming-systems approach in agricultural extension. It has a whole section entitled “Mainstreaming Women in Agriculture”, with paragraphs on “improving access to extension and training”, “redesign of extension services to reach women farmers” and “expanding the sphere of women extension workers”. One of the concrete objectives is “increasing the proportion of trained female extension workers to gradually ensure that at least one third of all extension workers are women” (GoI, 2001, p. 16). Interviews with officers in the Ministry of Agriculture have confirmed that the four Danida-supported projects have played an important role as sources of inspiration for this part of the new extension framework. Over the years the projects have been seen as laboratories for large-scale experiments in targeting women in agricultural extension, and their relative success has had consequences for the policies laid down in the new framework.

Even before the new framework appeared, several of the project states had formulated their own policies in this area. For instance, in 1997 the Government of Karnataka decided to direct 30% of agricultural extension resources towards female farmers. Today all four states have gender policies as part of their extension policies, with the aim that one third of their extension workers should be women in due course. It is clear that the four projects have had an impact on these state policies.

8.2 Impact on other projects and programmes

The Danida-supported projects have been a source of inspiration for several other, more or less similar projects in different parts of India. These include two large Dutch-supported projects, namely “Training of Women in Agriculture”, implemented in Gujarat from 1989 and terminated in 2003, and “Andhra Pradesh Women in Agriculture”, implemented from 1994 and now in its second phase. The Government of India on its own has established a “Central Sector Scheme of Women in Agriculture”. Falling under the Eighth Five-Year Plan (1992-7), this scheme was implemented in one district each in seven states, viz. Himachal Pradesh, Haryana, Punjab, Rajasthan, Uttar Pradesh, Maharashtra and Kerala. Under the Ninth Five-Year Plan (1997-2002) the scheme was extended to one district each in eight north-eastern hilly states, viz. Assam, Sikkim, Arunachal Pradesh, Meghalaya, Nagaland, Manipur, Mizoram and Tripura. Both the large Dutch-funded projects and the smaller Government-of-India schemes are similar in many ways to the Danida-supported projects. Like-minded, but somewhat different in approach, is a UNDP-funded “Food Security Programme”, with a strong focus on farm women, implemented since 1998 in Uttar Pradesh, Orissa and Andhra Pradesh. In Orissa there is close cooperation between TEWA and this programme. All the projects and programmes mentioned here are dealt with in more detail in the following chapter (Chapter 9) on comparative perspectives and in Annex 7.

8.3 Impact on training centres

Under WYTEP, sixteen District Agricultural Training Centres were constructed with funding from Danida, and the Government of Karnataka on its own built seven more training centres, so that today there is one centre in each district of the state. These centres are, of course, a valuable resource that can be used for a variety of training purposes. In fact, however, the training of farm women (and young people) under WYTEP has made up more than 70% of their training activities. This means that there has been a vested institutional interest in continuing these training courses, which has no doubt influenced decisions to retain institutional training as the core of WYTEP, in spite of the negative consequences associated with this, as highlighted in other chapters (especially Chapters 5 and 6).

In the other projects, training centres have been used mainly for the training of staff members, whereas the training of farm women has been village-based. Under TEWA, four agricultural training centres in different parts of Orissa were considerably expanded and upgraded. These were used for the year-long training of Lady Village Agricultural Workers.

In Denmark, since 1994 the Nordic Agricultural Academy has benefited from having more than 150 female extension workers from the four projects for six-month training courses. As already noted in Chapter 5, this has proved an extremely costly way of providing the training, and although the exposure to Danish society is valuable and cherished, it is likely that most of the training objectives could be achieved in India at a much lower cost. Again it appears that vested institutional interests have played a role in continuing this costly practice.

8.4 Village-level institutions

The Training and Visit approach to agricultural extension, which has been the dominant approach during the life of most of the projects, has used female contact farmers as a link between the extension workers and the farm women. More recently, their role has been expanded and redefined in the form of link workers or link leaders, who have received additional training both in agricultural matters and in group dynamics and management. In this respect there is some variation between the projects. TANWA in particular has provided substantial training to the link leaders and used them to train other co-farm women. In recent years, the training of co-farm women has become very effective, and the link leaders have played an important role in this. At the same time, many link leaders function as leaders of the Farm Women Groups.

There is no doubt that the most important institutions created at village level under the projects are the Farm Women Groups (FWGs) and Self-Help Groups (SHGs). Initially, the three oldest projects directed their training and extension activities at the farm women as individuals, but later FWGs were formed and served as a framework for important aspects of the extension activities. In the case of MAPWA, these groups formed part of the project from the beginning. The group approach has provided more room for dialogue and thus for taking into account the needs of the farm women. In addition, the women in the groups can support each other in their farming activities. The group approach has clearly made the extension more effective.

Gradually many of the FWGs have been transformed into SHGs, in which capacity they have taken up savings and credit schemes as well as a range of income-generating activities. This practice has conformed to the formation of such SHGs under numerous other projects and programmes run by other donors, NGOs or government agencies. In some cases there has been such a proliferation of these groups that they compete with each other in attracting women to “their” groups. Often “seed money” is used as a factor in this competition. Although the amounts involved are small, generally in the range 3-10,000 Rs., and the purpose of the seed money legitimate, this kind of competition is clearly unhealthy. Sometimes more or less the same groups of women are established and re-established under different schemes.

Notwithstanding such problems, in many cases, the SHGs have become an extremely important institution in the lives of the farm women. Compared to other SHGs, those formed under the projects have the advantage that the women have received training in a range of skills, which they can also use in group-based agricultural activities. In addition many groups have taken up income-generating activities that have nothing to do with agriculture; this has particularly been the case under TANWA. The savings and credit activities are also important for the economic well-being of the members: loans taken out are used for both productive investments and consumption. But the most important aspect of the FWGs/SHGs may be their role in strengthening a group’s members, thus providing a sense of collective empowerment (as discussed in more detail in Chapter 7).

Group formation has been especially strong in the case of TANWA, which has a large number of very dynamic and entrepreneurial groups. This is no doubt linked both with the high level of development in Tamil Nadu and the very high literacy percentage of the TANWA farm women. Some of the groups now cooperate in clusters and federations of groups. In a certain sense it can be said that the TANWA groups have created an embryonic women’s movement.

To a certain extent the FWGs and SHGs rely on the support of the female extension workers, who in most cases have taken the initiative to form the groups. There is no doubt that some of the groups will break down after the projects have ended, since it is unlikely that the female extension workers, nor even the male extension workers who may take over responsibility, will be allowed enough time for continued support. But it is also clear that a large number of the well-functioning groups will be able to continue on their own in both principle and practice. This is an important outcome of the four projects.

There is scope for collaboration between the FWGs/SHGs and the panchayati raj institutions, especially the *gram panchayats*. Such collaboration has also been on the agenda of some of the projects, notably Phase III of WYTEP. But in practice there has so far hardly been any collaboration. It remains to be seen if and when such collaboration materialises.

Chapter 9. Comparative perspectives

In this chapter, the farm women training projects funded by Danida are compared with more or less similar projects funded by other donors or the Government of India. A comparison is also made with a programme aimed at the empowerment of rural women that uses a completely different approach (Mahila Samakhya). The projects considered are:

- Central Sector Scheme of Women in Agriculture (GoI)
- Food Security Programme (UNDP-GoI)
- Training of Women in Agriculture, TWA, Gujarat (The Netherlands)
- Andhra Pradesh Training of Women in Agriculture, ANTWA (The Netherlands)
- Mahila Samakhya (The Netherlands)

A summary of the projects is provided in Annex 7. In this chapter, we shall restrict ourselves to presenting some salient features of the projects in a table (9.1) before moving directly to comparisons and lessons learned. Table 9.1 should be compared with Table 2.2.

Table 9.1. Salient features of projects for comparison

Project	Funded by	Period	States	Approach	Farm women trained/supported
Central Sector Scheme	Government of India	1992-	Numerous	Village-based training, Farm Women Groups	> 9,000
Food Security Programme	UNDP	1998-	Andhra Pradesh, Uttar Pradesh, Orissa	Extension and Micro-credit, Self-Help Groups	> 34,000
Training of Women in Agriculture	Netherlands	1989-2003	Gujarat	Institutional training, Self-Help Groups	209,000
A.P. Training of Women in Agriculture	Netherlands	1994 -	Andhra Pradesh	Village-based Training, Self-Help Groups	?
Mahila Samakhya	Netherlands	1989-	Kerala, Karnataka, Gujarat, Andhra Pradesh, Uttar Pradesh	Empowerment through education, Women's groups	No figures, but 9,000 villages

Significant differences and similarities emerge between these programmes, which are relevant in the context of “lessons learned”. The main focus in the following is on those projects that have been funded by Denmark and the Netherlands, the six Farm Women Training (FWT) projects plus Mahila Samakhya (MS).

9.1 Common concerns

- Institutional training (generally practising frontal, lecturing type of training methodology) has less impact for farm women than village-based training.
- When projects are target-oriented, there is no space for the subtle processes of transformation involved in empowering women because project targets are prioritised over women’s own problem-setting and problem-solving activities. Women are instrumentalised rather than made subjects of their own development.
- Training needs assessment is often done in a routine way. The training package in the FWT projects consists mainly of agricultural technologies, occasionally also skills related to empowerment. The contents of the training are mostly predetermined, though in exceptional cases the training is tailored to the needs of women.
- A shared concern of all the projects has been finding capable staff. A recurring theme is the failure to fill vacancies. Coping strategies have varied. Danida-supported projects had more space to integrate capacity-building in with the programme. The need for continuous staff training is being reported by all projects.
- Gender sensitisation training has been recommended.
- The FWT project documents commit themselves to a participatory, empowerment-oriented approach, though at the operational level projects are generally top-down.
- Qualitative impact assessment is largely missing: documenting impact mostly happens in quantitative terms supported by individual success stories.
- The projects are inward-looking and do little to seek strategic alliances.

9.2 Differences

- The presence of a female village-based training and extension worker makes a major difference to whether the project remains at a technical and delivery level, or rather triggers a process of women’s empowerment. In this sense TEWA, which involves female village-level workers, has an advantage over the other FWT projects. In terms of contribution to empowerment, the most transformatory function is that of the sayoginis (female village-level functionaries) in Mahila Samakhya (MS).
- There is a wide variation in the significance given to the formation of women’s groups. For MS, women’s group formation represents a crucial element in their organisational philosophy (i.e. in collectively asserting needs and changing power relations). The farm women training projects understand group formation primarily in the context of economic activities and objectives, and most of them are conceived as savings and credit groups. In some cases these Self-Help Groups (SHG) engage in wider activities, varying from income-generating or value addition activities to, in rare cases, promoting women’s strategic interests. While some projects see the formation of SHGs as a catalyst aiding other project objectives, others treat it as an isolated project activity.
- For MS, a core element is social action and negotiating power within existing male-dominated institutions. In the farm women training projects, women’s groups have sometimes started a social campaign, but this happened only exceptionally.

- Danida-funded projects received a wide range of additional support (capacity-building, organisational support).
- Finally, for the Danida-supported projects, project outcomes/impact is more widely documented in reviews and impact studies (notably this one).

9.3 Impact in terms of empowerment

All six FWT projects being reviewed here report that the projects have resulted in an increase in agricultural production and an at times substantial increase in income for farm women. In terms of the impact on women's empowerment, there are differences. The various projects differ in the way they conceptualise and act upon empowerment. A second difference is their starting point for social action. While in the case of the FWT projects the increase in agricultural productivity is, at least initially, the first objective, the empowerment of women being seen as secondary, for MS empowerment of women is the first objective. The FWT projects are focusing on the economic roles of women, seeing the empowerment of women in the first place in economic terms, and in the second place in terms of enhanced self-respect and other qualitative indicators. For MS empowerment is defined as enhancing the self-image and self-confidence of women, whose understanding of empowerment is linked to concepts of power, transformation and social action. For MS, issue-based learning and social action involve a variety of areas, ranging from reproductive health, water and sanitation, agriculture and education to good governance.

There are many approaches to empowerment. Do some of these have more lasting impact, more transformatory potential, than others? Comparison between different approaches suggests that it is not the entry point itself that makes a difference. In MS-Kerala, economic activities have been an entry point for transformative social action. The question is not what issue, but how this issue is taken as an entry point for learning, for exposing the oppressive power of existing gender relations and critically challenging these.

A recent study of Mahila Samakhya (2001) concluded: "Women are now negotiating for more space in family and society, beyond ... traditional roles. They express a greater say in family affairs. [...] Increasingly, their opinions are sought in decision-making within their households. Women spoke with pride about their increased ... self-esteem, which has enabled them to strengthen their position, individually and in some instances collectively. SHG ... are new role models for young girls and other women in the community." As we saw in Chapter 7, similar conclusions, using almost the same words, have been drawn from FWT projects.

Whereas the strength of MS is empowerment in the spheres of gender awareness and women's rights, the strength of the FWT projects is their contribution to women's enhanced economic status. But both the Farm Women Training projects and Mahila Samakhya have made a lasting, indelible impact in empowering women at the individual, household and community levels.

9.4 Challenges

“*India is about numbers*”, remarked one of the project managers to the evaluation team. In fact, the strength of the FWT projects has been their numerical impact: the huge numbers of women who have been trained and have increased their agricultural incomes. By contrast, the strength of the MS programme is in the depth of its social processes and well-articulated actions, bringing a women’s perspective to the solution of women’s problems and challenging patriarchal structures.

The experience of MS has been that their in-depth approach creates an enabling environment for the establishment of a grassroots women’s movement rather than for horizontal expansion. However, as a consequence, the growth of the MS programme in terms of numerical expansion has been limited. A recent evaluation recommended that the challenge for MS may lay in numerical expansion while keeping its strength. In the case of the FWT projects, the challenge is in deepening their understanding of women’s empowerment, integrating a gender and empowerment perspective in all aspects of the projects, and seeing women as subjects rather than targets.

For MS the challenge also comes from reflecting on the role it may play vis-à-vis other agents. For instance, in view of the proliferation of SHGs and schemes for economic empowerment, the added value of MS is the mobilisation of SHGs and other women’s groups around issues of social empowerment, thus demonstrating a women-centred approach and informing its partners with an empowerment perspective. This has happened in Andhra Pradesh. One problem experienced here is that MS’s approach does not converge with the conventional target-oriented approach applied by government schemes, as this does not provide the space for issues or processes to evolve based on the needs of women. Nor does it leave space for an approach oriented towards learning, process and women.

There has occasionally been successful co-operation between the FWT projects and MS. Farm women’s groups that have linked up with NGOs like MS are said to be among the most flourishing women’s groups (*TWA Impact Study 2001*). As the kind of expertise available within the organisations is different but complementary, greater cooperation may be recommended. However, as has been demonstrated above, there are considerable impediments in the way of closer cooperation.

Chapter 10. Conclusions

This main report has presented the results of a relatively large, fieldwork-based evaluation of the four training projects for farm women, with a special focus on the impact of the projects (Chapters 6-8). Within the limited space available, the report has not been able to do justice to the detailed analysis and results found in the five individual project reports. The reader is referred to these reports for greater depth of analysis and more nuanced findings. The project reports also include some suggestions and recommendations for WYTEP and MAPWA, the two projects that are continuing for another couple of years. The presentation in this concluding chapter is mainly structured according to Danida's (DAC's) evaluation criteria of relevance, effectiveness, efficiency, impact and sustainability. After sections dealing with each of these, the main conclusions, lessons and recommendations are summarised. The final section attempts to draw up some wider perspectives on the projects.

10.1 Relevance

All the projects have had, as their main objective, to enhance the performance of farm women from small and marginal farms in their role as agricultural producers in order to increase productivity and income. This has been done through training and extension focusing on a range of simple technologies. In a general sense, the projects have clearly been relevant to the needs of farm women from small and marginal farms and their families. The agricultural methods and technologies that have been promoted are appropriate to the needs of the target group. Most of them are low-cost or no-cost (disregarding opportunity costs) and environment-friendly, and some are even cost-saving. While the majority require more work, some reduce the workload of farm women. However, the rather standardised technological "package" and its general top-down presentation diminishes the relevance. A more differentiated approach based on individual and contextual need assessments would be preferable.

In addition to the main objective, the projects have also aimed to strengthen the trained women in their social role, or in other words to contribute to women's empowerment. In some of the projects and in the more recent phases, this has been included among the stated objectives. In the last five to seven years, this objective (along with the main objective) has been pursued by formation of Farm Women Groups or Self-Help Groups. This has been highly relevant to the needs of these women.

10.2 Effectiveness

Generally the projects have fulfilled their objectives. There is no doubt that the majority of the farm women who have undergone training have benefited from it. They were able to recall the most important skills they had learnt, and most of them had tried out new methods in practice, such as seed selection and treatment, compost making, vermi-composting, using bio-pesticides, etc. This has both resulted in higher yields and savings on chemical fertilizers and pesticides. At the same time, the trained farm women have acquired more self-confidence and the recognition of others in their village lives.

However, effectiveness has been hampered by excessive reliance on the Training & Visit approach to agricultural extension, with its narrow (crop) and individual focus and rather rigid top-down promotion of pre-determined messages. It is only in recent years and to varying degrees that this approach has given way to more participatory and broad-based extension methods focusing on groups of farm women. Generally, with the possible exception of TEWA, the projects have prioritised training over extension, and a more balanced effort would probably have made them more effective.

In terms of effectiveness and impact, there appears to be a significant difference between WYTEP and the other three projects. Whereas the other three projects have provided village-based training, WYTEP has continued to provide institutionalised training at District Agricultural Training Centres throughout its three phases. This has had a number of consequences.

Institutionalised training does have some advantages, not least in that it provides a unique opportunity for these women to get away from their villages and families for an extended period of time. This means that they can fully concentrate on the training, and it brings them together with other women in a way that may certainly contribute to individual and collective empowerment. In fact almost all the women interviewed under WYTEP said that they preferred institutional to village-based training.

But institutionalised training also has several serious drawbacks. It is particularly liable to a less effective “chalk and talk” approach. In the case of WYTEP, moreover, it has entailed a lack of coordination between training and extension. It is also rather costly compared to village-based training. But the most serious problem has been in terms of the consequences for the selection of farm women for training. Many eligible women simply cannot be persuaded to go to the training centre for ten days (since 2001, six days). Either they do not want it or feel they cannot do this to their families, or else their husbands or in-laws do not allow it. This has been a drawback to the project throughout its long history. In fact the AAO/FW have often been chasing around villages in order to find the thirty women required who must be willing to attend a course.

The primary target group for WYTEP (apart from the youth component) has consisted of married women from small and marginal farm households. No doubt the majority also belong to this category, but a very sizable share of the women who have been trained do not satisfy the selection criteria: either they belong to the category of better-off farmers (with much more than five acres of land), or else they are landless or are young, unmarried women with no immediate prospect of using the skills imparted. Moreover, the very poor from the target group are less likely to come forward for the institutional training, because they simply cannot afford to be away for such a long period. This has skewed the attendance towards slightly better-off farm women. In many cases too, the women who have gone for training have not been genuinely motivated. All this has helped to divert the project away from its goals, making it less effective and wasting a good deal of resources. In the other projects, especially in MAPWA, there has also been some inclusion of women outside the target group or lacking sufficient motivation, but on the whole these problems are much less than those encountered in WYTEP. In MAPWA, by contrast, it is a serious concern that more than half of the sampled farm women were found to be outside the target group, with landholdings above five acres.

The difference in effectiveness between WYTEP and the other three projects seems to be corroborated by the survey of the number of methods learnt, tried out and still being used by the trained farm women. There is some difference in the average number of methods learnt, and a very marked difference in the methods tried out and still being used: in WYTEP only 1 against 3-4 in all the other projects. These figures must be viewed with caution – numbers are not everything – but the numerical difference tallies with assessments arrived at through other methods of investigation.

On the other hand, there is a remarkable degree of uniformity in terms of learning, trying and using the methods when correlated with social status. In contrast to what might have been expected, there is no significant difference in this respect between women with a Scheduled Caste, Scheduled Tribe, “Other Backward Class”, “Forward” or “Other” background. Nor is there any significant difference between literates and illiterates in this respect across all four projects, although in the two Southern states literate women are using significantly more methods than illiterates (an average of 1.1 against 0.7 in Karnataka, an average of 3.0 against 2.2 in Tamil Nadu).

In Phase II TANWA appears to have become a relatively effective training project, based on careful selection of the women, village-based training, use of link leaders and dissemination through training of “co-farm women”. In MAPWA’s (recently started) Phase II, the village-based training has been cut down from five to three days’ duration in order to achieve better coverage. This, of course, saves resources, but it remains to be seen if it is sufficiently effective in imparting the necessary skills. TEWA is different from the other three projects in that it employs primarily Lady Village Agricultural Workers, who are at a lower level of the administration than the female Agricultural Officers of the other projects, with less formal (academic) background and being posted at village level. This should improve relations with the villagers and solve some of the logistical problems (transportation) that have hampered the effectiveness of the other projects. Clearly this is a much cheaper approach. TEWA has also registered impressively large numbers of farm women as having been trained. During fieldwork, however, it was discovered that 10% of respondents claimed never to have received any training, and one should place a question mark over the extent (and perhaps quality) of training received by some of the other village women.

In all the projects the introduction of Farm Women Groups and/or Self-Help Groups within the last five years or so has enhanced effectiveness. This is true in relation to the agricultural extension objectives, and even more so in terms of contributing to women’s empowerment.

10.3 Efficiency

The evaluation team made considerable effort to assess the efficiency of the four projects. However, this turned out to be a very difficult and somewhat frustrating task. In order to assess and compare the projects, it was decided to focus on the relationship between the numbers of trained farm women and the costs of the projects. It was difficult to obtain reliable figures on the numbers trained. In some cases the team was provided with different figures, at different times, from the offices of the Danida advisers or figures differing from those provided by the Directorates of Agriculture. Moreover, the differences in approach of the four projects placed a question mark over who was to be included in the calculations: only those directly trained, or some of those who were

co-trained or to whom skills had ostensibly been disseminated? Finally there were also difficulties in obtaining access to reliable annual figures for costs, there being some differences between the figures in DKK and in INR.

Notwithstanding these problems, some calculations and comparisons were made, as presented in Chapter 5. However, they should certainly not be taken to be more than indicative at best. The calculations did show that TEWA appeared to be the most cost-efficient and WYTEP clearly much less efficient among the four projects. This is in line with an intuitive understanding of the differences in approach, TEWA's grassroots level, village-based approach contrasting here with WYTEP's costly institutionalised training approach. Based on these calculations, TANWA was almost as cost-efficient as TEWA, owing mainly to its very effective training of a large number of co-farm women. Thus it can be concluded that in relative terms TEWA and TANWA have been highly cost-efficient, MAPWA relatively cost-efficient and WYTEP not cost-efficient at all.

The calculations were based on the second phase of three of the projects (in the case of MAPWA, the first phase). Adding up the figures for all the projects, the average cost per trained farm woman was calculated to be 656 INR or a little more than 100 DKK. Given all the uncertainties, this can be taken as indicative of the cost-efficiency of the four projects combined, but only in the second phase, which in most cases was more efficient than the first. If the first phases are included and WYTEP is separated from the other three projects, a very rough estimate will give the cost per trained farm woman as of the order of 100 DKK for the three projects, though several times more this figure for WYTEP.

This raises an additional question: were the results of the projects worth the money? This is clearly even much more difficult to answer because it implies an assessment of the benefits as well as the costs. But in view of what is stated elsewhere in this concluding chapter, as well as in Chapters 5-8, a tentative answer is that although WYTEP has not quite been value for money, the other three projects certainly have been.

10.4 Impact

In a general sense the projects have fulfilled their main objective, namely to train farm women in a range of simple agricultural skills so as to make them more productive and thus improve their livelihoods. There is no doubt that yields have been improved by some of these methods, such as seed selection and treatment. But the data on yields were inconclusive. Some farm women reported massive increases in yields, while others reported reduced yields. The problem here is that many other factors influence the yields, notably the seasonal weather conditions, particularly whether there is enough rainfall or whether periods of drought have to be contended with. An assessment of the methods promoted indicates that, all things being equal, yields might increase by 10-25% or even more. While in some cases increased production has led to increased consumption and better food security, in others there has been a surplus to sell in the market and generate an income. The former aspect has been especially important in TEWA (Orissa), the latter in TANWA (Tamil Nadu). This can be directly related to the different levels of development.

The field survey clearly showed that most trained farm women had cut down on the use of chemical fertilizers, replacing them with compost or other types of organic manure.

In this way they have made a substantial saving on the costly chemicals and also benefited the environment. The reduction in the use of chemical fertilizers has been most marked in the most developed state, Tamil Nadu, where chemical fertilizers are widely used (though they are also very significant in Karnataka and Madhya Pradesh). By contrast, a majority of the trained farm women in the poorest state, Orissa, had actually increased their use of chemical fertilizers, but this can be seen as necessary in obtaining good yields in view of the very limited amounts used previously. In all the states, the majority of trained farm women used more farm yard manure after the training.

One third of the trained farm women in the sample were found to be members of a Farm Women Group or Self-Help Group. In many cases this has provided new opportunities for income-generating activities, either linked to the agricultural training or of a completely different nature. Such activities have been particularly important in the case of TANWA, because of the better opportunities in Tamil Nadu and the literacy and entrepreneurship of the TANWA women. However, group formation in itself is not a panacea for development. In the case of WYTEP, a number of the FWGs/SHGs that were formed have become defunct. Moreover, an unhealthy type of competition has evolved, where different agencies compete and try to attract women to “their” SHG, for example, by offering “seed money”.

At the same time, the projects have created greater self-confidence on the part of the trained women, and many are now also more respected by others. The formation of Self-Help Groups has been an important vehicle for collectively strengthening the women. In other words, the projects have had an impact in both the economic/material and social/empowerment senses.

An important aspect of empowerment concerns the role of the trained farm women in decision-making, both generally, and concerning the introduction of new technologies on the farm specifically. Traditionally this is their husbands’ prerogative. Across the four projects, it is quite impressive that 45% claim to take decisions jointly with their husbands and 13% to be the main decision-makers in their families. But there are significant differences between the projects. In TANWA 73% belong to one of these two categories, in TEWA 68% and in MAPWA 65%, but in WYTEP only 31%. For WYTEP and TANWA literate women are, not surprisingly, far ahead of illiterate women in this respect. Thus the relatively high level of female literacy in Tamil Nadu is an important factor behind this dimension of empowerment. However, the literacy factor alone does not explain the difference between WYTEP and the other three projects. In both MAPWA and TEWA, there are relatively more illiterates in the sample than in WYTEP. It is interesting that, among the women trained under TEWA, the illiterate women actually have a greater role in decision-making than the literates. This is linked to the fact that while many illiterate Adivasi women in the interior districts have great influence, many literate high-caste women in the coastal belt have little, owing to prevailing cultural and caste norms.

In terms of reaching the target group, TANWA and TEWA have fared much better than WYTEP and MAPWA. The target group of small and marginal farm households constitutes 82% of the TEWA sample and 76% of the TANWA sample, but only 53% of the WYTEP sample and a paltry 40% of the MAPWA sample. Although the samples are neither large nor representative enough to come to exact conclusions in this respect, it is quite evident that the latter two projects ought to improve their targeting very considerably. It is gratifying to note that in the TEWA and MAPWA samples about a third of

the women are Adivasis (STs), a good deal more than their share of the population of Orissa and Madhya Pradesh respectively. Similarly, Dalits (SCs) are reasonably well represented with about one fifth of the entire sample and one third in the TANWA sample. By contrast, Muslims constitute only 1% of the sample, a clear indication that they have been bypassed by the training projects, especially in Karnataka, where they constitute more than 10% of the population.

Even though generally all the projects have had a positive impact, there are huge variations both between and within projects. These variations are a result of both differences in project activities and differences in context. For instance, the generally rather positive impact of TANWA partly reflects the relatively higher level of development in Tamil Nadu, in particular women's educational status. The women involved in TANWA have therefore been in a favourable position to take advantage of the project. It is no accident that it is TANWA which has evolved into an embryonic women's movement. Nothing like that has happened in any of the other projects.

In all the projects, there has been differential impact at different levels. This can vary from person to person, from village to village, and from level to level (*taluk* or district). This may be due to factors in the implementation, for example, the possibility that the rather standardised package offered by the projects is more relevant in some areas than in others and that it has not always been sufficiently adapted to local conditions. Perhaps more frequently it has been adversely affected by contextual factors, such as favourable or unfavourable climatic conditions, differences in socio-economic composition, etc. Compared to TANWA and WYTEP, TEWA and MAPWA have been implemented in states that are much less developed in terms of infrastructure, for example, and much poorer.

Orissa and Madhya Pradesh also have a large Adivasi or tribal population, and they figure prominently among the beneficiaries in those two states. But it is interesting that impact in the tribal communities seems to be different in the two states. It appears that MAPWA has had less impact among the Adivasis than among the general caste population. What MAPWA has offered has not been sufficiently relevant to the needs of the very poor Adivasi communities, for whom agriculture can only provide a minor part of their livelihood. TEWA, by contrast, appears to have had a good impact among Adivasis in the interior districts. An important factor here is the fact that Adivasi women have traditionally been strongly involved in agricultural activities. By comparison, impact has been less in the coastal Puri District, which is much more developed and dominated by the higher castes. The main problem here is that manual labour is seen as degrading and that upper-caste women are not supposed to take part in it. Thus many of those trained under TEWA in this district have not been able to put what they have learnt into practice.

All the projects have had an impact on India's national extension policies. For the first time, the needs of women in agriculture have been addressed on a large scale. The projects have therefore served as laboratories in this pioneering venture and as source of inspiration for a number of smaller projects set up by the Government of India in different states. In addition, they have influenced India's new (2001) Policy Framework for Agricultural Extension, a whole section of which is devoted to "mainstreaming women in agriculture". The provisions include "increasing the proportion of trained female extension workers to gradually ensure that at least one third of all extension workers are women".

10.5 Sustainability

The approach to agricultural training and extension developed over the years in the four projects must be regarded as sustainable in more than one sense. First of all, most of the skills taught are simple and low-cost, no-cost (disregarding opportunity costs) or even cost-saving, as well as environmentally sound. Hence they can be practised and disseminated even in the long term.

All the projects have trained and employed female extension staff members, so that for the first time in the four states (and India) there is a substantial female cadre experienced in attending to the needs of women in agriculture. This is a very valuable resource, and with the new policy framework giving priority to female staff, there is reason to believe that the female staff will be retained and their numbers expanded after the projects have been terminated. However, there is a risk that the focus on farm women's needs may become diluted. Some attempts have been made to mainstream gender issues in the Departments of Agriculture, but by and large these efforts have been entirely inadequate. However, in view of the limited number of female staff members, it is necessary for male staff members to become involved on a much larger scale in activities targeting farm women. Budgetary problems, which in varying degree haunt all the states, limit the number of resources that will be set aside for this purpose in the future. In their most recent phases, all the projects have introduced cost-sharing to some extent, and generally the salaries of extension staff were or will have been taken over by the Departments of Agriculture before the termination of the projects. This obviously increases the prospects of financial sustainability.

The formation of Farm Women Groups or Self-Help Groups has contributed greatly to the continued viability of some of the income-generating activities, as well as providing a forum for learning, innovating and extending mutual support among their members. Until now most of the groups have been relatively dependent on the support of the female extension staff. It remains to be seen how they fare in the future with reduced support or possibly no support at all. The well-functioning groups, which have already accumulated capital through savings, can probably survive on their own, but it is likely that many groups will collapse if continued support is withdrawn.

10.6 Summary of main conclusions, lessons and recommendations

The four project reports contain numerous conclusions, lessons and recommendations. Here we shall only summarise the most important of these, in particular those that are relevant across the four projects.

10.7 Main conclusions

- The projects have been innovative in so far as they have, for the first time in India, targeted women in their role as agricultural producers on a major scale. Over the years the four projects have provided training and extension to roughly 1.1 million farm women, more than half of these in the form of direct training.

- The training and induction of a large number of female extension staff (around 850 women in all) in the General Extension Service of the four states offer good possibilities for keeping a focus on gender concerns in agricultural training and extension activities.
- The projects have given a priority to training, and the link between training and extension has been weak. In this respect, TEWA has fared better than the other projects.
- The institutional training under WYTEP has led to markedly poorer results than the village-based training in the other three projects.
- All projects have in principle targeted women from marginal and small farms (below 2 ha). TANWA and TEWA have been effective in their targeting, with 76% and 82% respectively of the study sample belonging to this target group. By contrast, WYTEP had only 53% and MAPWA a paltry 40% within the target group. This should be a matter of serious concern.
- Only 1% of the trained farm women in the sample were Muslims, indicating that this community has been severely under-represented in the projects.
- On average the farm women trained under WYTEP continue to use only one of the skills or methods learned, whereas the farm women trained under the other three projects continue to use around three skills or methods on average.
- There is no doubt that some of the skills practised, e.g. seed selection and treatment, lead to higher yields. But the survey data on yields are inconclusive because of other factors, notably variations in climatic conditions.
- Almost two thirds of the farm women – in TANWA more than 80% – have reduced the use of chemical fertilizers since training. This has produced savings and also reduced harmful effects on the environment. However, in the case of TEWA, the majority have increased the use of chemical fertilizers, of which they made little use previously, in order to obtain good yields.
- Two-thirds of the farm women – in TANWA more than 80% – now use more farmyard manure than they did before training, and very few use less. Substituting farmyard manure for chemical fertilizer is a positive result in both economic and environmental terms.
- The husbands of the trained farm women overwhelmingly (84%) expressed the view that their wife's training had benefited the family.
- The majority of trained farm women had acquired a greater role in decision-making concerning the introduction of new technologies on the farm. Almost half, but ranging from 63% for TANWA to 25% for WYTEP, stated that they took part in joint decisions, and 13% were the main decision-makers in their families, ranging from 28% for TEWA to 6% for WYTEP.
- The organisation of Farm Women Groups has contributed significantly to improving the results of the projects. A third of the trained farm women in the sample were members of a Farm Women Group or Self-Help Group. Two-thirds of these groups were engaged in agricultural activities, a little less than a third in other income-generating activities.
- A crude calculation of costs per trained farm woman shows that in relative terms TEWA and TANWA have been highly cost-efficient, MAPWA relatively cost-efficient and WYTEP not cost-efficient at all.

- More than two-thirds of the farm women reported an improved economic status since the training. For TEWA and MAPWA almost half ascribe the economic improvements exclusively to the training, whereas for TANWA this is only 30% and for WYTEP only 10%. This reflects differences in levels of development. In Orissa and Madhya Pradesh, there are few other economic opportunities for these women. The particularly low figure for WYTEP also mirrors the low level of impact of this project.
- It is thus clear that the projects have contributed to poverty reduction. A rough estimate based on the survey and the case studies indicates that roughly a third of the trained farm women have had substantial economic benefits, another third more modest economic benefits, and the remaining third no economic benefits or even losses (e.g. in case of crop failure).
- The projects have contributed to women's empowerment in several ways. A majority of the trained farm women reported increased self-confidence, greater respect being shown them by others (notably their husbands), a greater role in decision-making and increased mobility. In some cases participation in Farm Women Groups or Self-Help Groups has led to what might be termed collective empowerment, for example, in the form of making demands to authorities.
- The projects have been a source of inspiration for several other more or less similar projects in different parts of India. They have also influenced the new (2001) Policy Framework for Agricultural Extension adopted by the Government of India.
- To sum up, the projects have fulfilled their main objective, namely to train farm women in a range of simple agricultural skills so as to make them more productive and hence improve their livelihoods. At the same time, they have contributed to empowerment of the trained farm women.

10.8 Main lessons

- The agricultural methods and technologies that have been taught have proved to be appropriate to the needs of the target group, but a more differentiated approach based on individual and contextual needs assessments would be preferable.
- Reliance on the Training and Visit system, with its standardised technological package and top-down presentation, has somewhat reduced relevance, effectiveness and impact. An earlier introduction of more broad-based, group-focused and participatory extension methods would have enhanced the results.
- The study has shown that in a number of ways the impact of WYTEP has been less than the impact of the other three projects. The main reason for this can be found in the weaknesses of WYTEP's institutional training compared to the village-based training adopted by the other three projects. As a basic approach for training farm women, village-based training is superior to institutional training.
- TEWA has been efficient in reaching a large number of farm women through the village-based Lady Village Agricultural Workers. TANWA has been efficient in its systematic training of large numbers of "co-farm women". MAPWA has been relatively efficient using a similar but somewhat less systematic approach. By contrast, the institutional training of WYTEP has been very costly and not efficient at all.

- There has been some learning from project to project, but not enough. For instance, MAPWA might have adopted TANWA's effective approach to the training of co-farm women. WYTEP has not been able to learn from the other projects, nor from itself, but has continued an ineffective and costly institutional approach to training for more than twenty years. An important reason for this appears to be the vested interests that emerged once the district training centres had been established.
- Certain important issues and recommendations in previous reviews have not been taken into account during project implementation, notably the repeated attention drawn to the problems involved in institutional training.
- Over a period of ten years, more than 150 female agricultural extension officers from the four projects have taken a six-month course at the Nordic Agricultural Academy in Denmark. This has been a positive experience in terms of exposure to and learning of certain skills, but also extremely costly. A more massive training effort in India, combined with shorter duration courses in Denmark for a much smaller and carefully selected number of female extension officers, would be a more effective way of pursuing the training needs. Again it appears that vested interests have played a role in continuing a less effective and very costly practice.
- The Danida advisers, all Indian and female, on the four projects have all been dedicated and well-qualified and have played a very important role in the projects. Their strong position has contributed to the relatively effective implementation of the projects, but in fact they have been much more than advisers. In many ways they have acted more as managers, and this tendency has been reinforced by the constant rotation of short-term project directors, often on their way to retirement. Although the projects have generally been integrated well into the Departments of Agriculture, project identity and the presence of strong advisers have to some extent eroded ownership by the state government.
- The projects have contributed to mainstream gender issues in the Departments of Agriculture. Nonetheless, all the DoAs continue to be overwhelmingly dominated by male officers, many of whom have shown resentment of or openly resisted the new emphasis on women in agriculture. However, there tends to be good support for these efforts at the highest level in the DoAs. Hence it is likely that such efforts will continue, even after the projects have been terminated.
- All the projects were initially conceived as agricultural training and extension projects. Only gradually and in varying degrees has the objective of women's empowerment become part of these projects. Nevertheless, they have had significant impact in terms of empowering both the farm women and the female extension officers). However, the impact could have been even greater if this objective had been pursued more clearly and systematically.
- Compared to the other projects, TANWA has been more successful in establishing vibrant Farm Women Groups and Self-Help Groups, as well as clusters and networks of them. This is partly because of the more developed nature of Tamil Nadu, notably its high female literacy and good economic opportunities. It is interesting that a project such as TANWA has evolved into an embryonic women's movement.

10.9 Main recommendations

- In line with the other projects, WYTEP should provide village-based training instead of institutional training, at least for the first training course offered to farm women. The District Agricultural Training Centres should be used for more specialised and follow-up training for both male and female farmers, as well as extension staff.

- Training in Denmark should either be discontinued or only be offered in terms of more short-term courses on a much more selective basis, possibly to both female and male extension officers. Moreover, such training needs a much more systematic follow-up after the return to India. But well-organised staff training in India can go a long way towards fulfilling the same objectives at a fraction of the cost of conducting the training in Denmark.
- In order to mainstream gender issues in the General Extension Service in all four states, training sessions, workshops and courses in gender issues should be conducted for male extension staff at all levels. This should be done within the two projects still working (WYTEP and MAPWA) and by the Departments of Agriculture in Tamil Nadu and Orissa.
- WYTEP and MAPWA must both make a concerted effort to ensure that the vast majority of the trained farm women in the last couple of years of the projects actually belong to the target group, that is, to women from small and marginal farms.
- In all four states, special precautions should be taken to ensure that women from Dalit (SC), Adivasi (ST) and Muslim communities are included in the training and extension programmes, at least in proportion to their share of the rural population.
- Building on the tendencies in recent years within the projects, a more differentiated and participatory approach to training and extension is recommended, based on contextual and individual needs assessments. In all four states the Farm Women Groups and Self-Help Groups are an appropriate framework for the extension activities, as well as for other income-generating and empowering activities. It is recommended that these continue to be supported for some time, depending on the group, although the final aim must be to make them self-supporting.
- In the likely event of the extension services becoming more demand-driven and partly privatised in the future, special provisions must be made for farm women and very poor farmers. Otherwise these categories risk being left out of extension activities altogether.

10.10 Concluding remarks

The four training projects for farm women have been innovative in the Indian context. By providing training and extension in simple, low cost, environmentally sound agricultural skills they have supported relatively poor farm women, mainly from small and marginal farms, in a relevant way. By adopting such methods, the farm women have increased yields, saved on chemical fertilizers and pesticides, introduced new income-generating activities, and improved their livelihoods in other ways. Along with the material benefits, the trained farm women have reported that they have gained in self-confidence and become more respected by others, as well as having acquired a significantly enhanced role in decision-making within their family. In other words, many of them have increasingly become agents in their own lives rather than merely being “target groups” or “project beneficiaries”. The group formation in particular that has taken place in the last five to seven years has contributed to what might be called collective empowerment.

As usual, however, there is the problem of attribution. The evaluation team has been able to document a number of changes in the lives of the trained farm women and their families – after they received the training. This has been based mainly on their own accounts drawn from the questionnaire-based as well as in-depth and group interviews. The evidence has clearly pointed to the relationship between the training and follow-up extension on the one hand, and the changes in agricultural practices and

derived economic benefits, as well as aspects of empowerment, on the other. But the exact causal relationship can only be determined in a very incomplete way. By using a range of different methods, the evaluation team has tried to establish the relationship as precisely as possible, but it must be borne in mind that there will always be an element of interpretation in such assessments.

Over the years, the approach followed in the projects has evolved from the narrow and rigid, top-down Training & Visit system towards a more broad-based, participatory and group-focused approach. However, this process has been rather slow, and the projects in this respect have merely followed the general trend in the General Extension System. To some extent the projects have learnt from each other, but it is noticeable that the highly systematic approach to the training of co-farm women under TANWA has not been taken up by the other projects. WYTEP pioneered the whole approach, and TANWA, TEWA and MAPWA successively learnt, positively and negatively, from WYTEP. In particular the three more recent projects opted for a village-based training approach in contrast to the institutional approach followed by WYTEP. In view of the drawbacks of the institutional approach – highlighted by this evaluation, but known for years and also dealt with in previous reviews – it is strange that WYTEP has continued to provide the basic training in training centres. Apparently WYTEP has not been able to learn from itself, or maybe this is simply a case of vested interests emerging once the training centres had been built and staffed. In any case, the Government of Karnataka, Danida and the Danish Embassy in India must all share responsibility for having continued an approach for more than twenty years which is costly and less effective and which has produced a more limited impact than the other three projects.

Looking back, it is clear that all four projects belong to a previous generation of agricultural extension programmes. The narrow focus on the adoption of technologies and skills, which has predominated in all the projects until recently, has given way to a much broader approach in which technology transfer, advisory work and facilitating go hand in hand (cf. Neuchatel Group, 2000). Moreover, it is unlikely that the states in India will continue to finance a huge general extension system that is free of cost to the farmers and hence very costly for state governments. In both Madhya Pradesh and Karnataka, experiments are under way with the privatisation of certain services within the extension, based on the introduction of user fees. Karnataka in particular, with the establishment of decentralised Farmer Contact Centres at hobli level, has set up an infrastructure that can be used in transforming a supply-driven, free-of-cost system into a demand-driven system supported by user fees. For many farmers, this will represent an improvement (in terms of both relevance and easy and timely access), and it will not be a problem to pay the user fees. But for the poorest farmers, special provisions will have to be made in order to ensure their access to the system. The same applies to the farm women. The experience so far with the Farmer Contact Centres indicates that there are very few farm women among their clients.

All the projects were initially conceived as agricultural training and extension projects. Only gradually and to varying degrees has the objective of empowering women become part of the projects. When the three older projects were planned in the 1980s, the WID paradigm dominated both the discourse and the concrete plans. Women were seen as an additional economic resource that had to be tapped. Later the GAD paradigm, with its focus on gender relations, took over, and, building on this, the Naila Kabeer-inspired concept of empowerment as operationalised for this study. The evaluation team has consciously adopted the more “modern”, – and in our view appropriate approach, though it

should be remembered that the projects were planned at a time when the WID paradigm ruled supreme, in both Danida's activities and elsewhere.

The only evaluation (disregarding reviews) of the projects to predate the present one is from 1991. It is significant that this evaluation had already concluded that "the secondary benefit of raising the status of farm women on small farms may in the long term be the most significant impact of the projects" (Danida, 1991, p.4). During an interview in 2002, one perceptive top-level bureaucrat in Madhya Pradesh said the same about MAPWA: "The important thing is women's empowerment; the material gains could be there without the project".

However, it is not easy to determine which benefits constitute the most important impacts of the projects, the economic benefits or the benefits in terms of women's empowerment. How should this be measured? In a very real sense, this is a question of comparing the incomparable: Food security and rupees earned versus self-esteem and an enhanced role in decision-making. But it is interesting that projects which were planned as agricultural training projects have had a very significant impact in terms of women's empowerment. Although it cannot be said that this was a completely unintended consequence, nor can it be said that the projects had been planned in this way, at least until not until the Farm Women Groups and Self-Help Groups were introduced into the projects in subsequent years.

Training a relatively large number of farm women in a range of simple agricultural methods has in itself been worthwhile. Given the increasingly important role of women in Indian agriculture, it can safely be said that such efforts were highly overdue. But it is a matter for debate whether this is the best way of addressing rural poverty. The projects have contributed to poverty reduction, but they have done nothing for the poorest segments of the rural population, the landless agricultural labourers. Moreover, it is clear that the solution to the problem of rural poverty cannot be found exclusively within agriculture. Diversification of livelihoods is needed, and in this respect – as in the context of so many other development interventions – the introduction of SHGs under these projects has served a useful purpose.

The distinguishing feature of these four projects, however, is their combination of agricultural training and extension objectives and objectives linked to women's empowerment. Regarding empowerment, it is clear that much more could have been done if this objective had been explicitly addressed earlier and pursued more vigorously, for example, by creating groups. But in spite of the limitations of the approach, it is noteworthy that all four projects have contributed to women's empowerment on a scale that makes this result at least as significant as those linked to agricultural training.

A final question is whether these projects and the lessons learnt during their implementation may prove relevant in tackling rural development problems elsewhere, in other countries in Asia or even Africa and Latin America. Here it must be reiterated that context matters a great deal. The role of women in agriculture varies greatly from country to country, as well as between whole continents. But on all the three Southern continents the trend has been for women to have become gradually more and more involved in agriculture, in many cases as the primary producers, with men taking up more and more non-farming activities. Moreover, there has been a tendency towards the "feminisation" of rural poverty. Thus an approach like that pursued by the four projects in India is likely to be relevant elsewhere, naturally tailored to specific conditions, and

taking into account the lessons learnt in India, including a greater explicit emphasis on pursuing simultaneously a dual objective of material benefits and empowerment.

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Annex 1 Terms of Reference

Copenhagen, 22 August 2002
Eval. j.nr. 104.A.1.e.30

Evaluation/Impact Study of Four Training Projects for Farm Women In India (WYTEP, TANWA, TEWA, MAPWA)

1. Background

Since 1981 Denmark has supported four women-oriented agricultural projects in India with a total grant of DKK 278.9 million (1981-2006).

During the two decades the projects have been running, their objectives have evolved from an initial focus on women's productive activities to a dual objective of raising the productivity of farm women and at the same time strengthening their position on society. Also the main target group of the projects have changed from including both women and youth in the first project, initiated in the early 1980s, to an explicit targeting of farm women from small and marginal farmer household in the most recent project started about 15 years later. Core activities of the projects have included a) training of farm women either in district centres or at village level (notably training in application of low cost technologies in agriculture and related fields), b) training of female extension staff (many of them trained in Denmark) and integration of this staff into the regular state agricultural extension service, and c) support to the formation of farm women's groups for dissemination of knowledge from trained women to other women, sometimes involving credit and savings operations.

While sharing many features, the four projects have different histories and are located in four different Indian states:

- *Women and Youth Training and Extension Project (WYTEP), Karnataka.* Implemented since 1982. Currently in third phase, 2000-2005. Danish grant for phase I: DKK 35.5 million, phase II: DKK 59.7 million, phase III: DKK 28.3 million. Total Danish grant: DKK 123.7 million.
- *Tamil Nadu Women in Agriculture (TANWA).* Implemented since 1986. Currently in second phase, which has been extended until March 2003. Danish grant for phase I: 30 million, phase II: DKK 58.1 million. Total Danish grant: DKK 88.1 million.
- *Training and Extension for Women in Agriculture (TEWA), Orissa.* Implemented since 1987. Currently in second phase, which has been extended until March 2003. Danish grant for phase I: DKK 13.3 million, phase II: DKK 23.7 million. Total Danish grant: DKK 37.0 million.
- *Training of Farm Women in Agriculture – Madhya Pradesh (MAPWA).* Implemented since 1993. Currently in transition to second phase, 2002-06. Danish grant for phase I: DKK 12.6 million, phase II: DKK 17.5 million. Total Danish grant: DKK 30.1 million.

Before 1980 there were only scattered attempts in India to target women in agricultural training and extension. Several donors, including Danida, tried to influence the Government of India to direct a greater part of its development activities towards

women. The initiation of the four projects should be seen as an attempt by Danida to demonstrate the relevance of addressing the needs of farm women (and youth) for training and extension in agricultural activities. The attempt has been successful insofar as the Government of India by the mid-1990s –without Danida involvement – had established somewhat similar although smaller projects in seven states, namely Himachal Pradesh, Punjab, Haryana, Rajasthan, Uttar Pradesh, Maharashtra and Kerala.

While the implementation of each of the projects is well-documented, little is known about the specific impact of the activities on the economic situation and the position in society of the women involved. The wider impact of the projects on institutions and policies at state and national level has not been evaluated, and a comparative study of strengths and weaknesses including all four projects has not yet been undertaken. Each of the projects has been reviewed several times, but an evaluation comparing the activities has not been carried out since 1991, when the then three existing projects (WYTEP, TANWA and TEWA) were subject to a mid-term evaluation. This evaluation found it too early to assess the impact of the projects, and because of time and resource constraints more recent reviews have not attempted to make well-founded impact assessments either.

2. Objectives

The main objective of the evaluation is to *document the impact* of the four projects with a view to assess whether agricultural training and extension targeted at women is an effective way of empowering farm women and reducing poverty in farming households. In addition to this the evaluation will extract general lessons learned, which can be used by the two projects expected to continue, WYTEP and MAPWA, as well as by similar interventions elsewhere (including interventions linked to agricultural sector programmes aiming at supporting farm women).

3. Scope of Work

While emphasis in the evaluation is put on assessing the impact of the four projects, the evaluation shall address all five evaluation criteria, hence also the issues of relevance, effectiveness, efficiency and sustainability (Ref. Evaluation Guidelines, Chapter 4).

Impact will primarily be taken to mean *changes in people's lives and livelihoods brought about by the projects*. The main focus will be on the farm women, with a secondary focus on their families.

Two issues stand out as particularly important when assessing the projects: because of their dual objective of raising the agricultural productivity and contributing to the empowerment of farm women, *the gender aspects of the projects*, on the one hand, and *the agricultural aspects*, on the other hand, must both be addressed by the evaluation.

The fact that it is part of their objectives to influence gender relations represents an important cultural dimension of the projects. The evaluation must assess the achievements of the projects in terms of their contribution to strengthening the ability of the women to make strategic life choices, i.e. not only choices regarding agriculture but choices regarding their general life situation. Using the empowerment framework devel-

oped by Naila Kabeer, this implies identification and assessment of empowerment and disempowerment processes at different levels a) the level of individual women (self-confidence, pride, negotiation, abilities, etc.), b) mutually supportive social processes (among women, in families, communities, etc.), and c) collective steps towards changing gender relations (e.g. farm women groups evolving into a movement of farm women). Disempowerment aspects regard both possible disempowerment of women as a result of negative reactions by men to changes in gender relations and disempowerment of some women (e.g. the landless) as a result of the empowerment of other women.

The agricultural aspects include an assessment of extension methodologies and messages used in the projects. Special attention must be paid to the appropriateness of the 'Training & Visit' approach, which until recently has been prevalent in the projects, and the relevance of the extension messages to the target group of women from poorer households. Advantages and disadvantages of working through the general state extension system should be assessed, and the effort by and ability of the projects to influence the extension system should be evaluated. Finally, the evaluation must identify the impact of the project on the economic situation of farm women and their families.

An important dimension in the evaluation is the *comparative perspective*. Although the projects in many respects are similar, there are apparent differences concerning the formulation of their *objectives* (in some cases also the objectives of the various phases of the same projects differ) as well as concerning the *modalities*. While such disparities reflect a learning process from one generation of projects to the next, it is important to assess whether they translate into differences in terms of impact, effectiveness, cost-efficiency and sustainability. The impact study shall be designed to allow comparisons of issues such as a) training in centres versus training in the villages, b) top-down versus more participatory extension approaches, c) methods of forming women's groups and dissemination of skills, and d) integration of female extension officers in the regular extension service.

Special attention should be paid to the significant differences in the *context* of the projects, which are likely to have a bearing on the impact. Differences between, on the one hand, the more developed states of Karnataka and Tamil Nadu and, on the other hand, the generally poorer states of Orissa and Madhya Pradesh as well as differences in state policies should be investigated as a key background for understanding impact as a product of both intervention and context.

4. Issues

The evaluation shall be carried out in accordance with Danida's 'Evaluation Guidelines' and the tasks shall comprise but not necessarily be limited to the following:

- An assessment of the relevance of project extension activities for the needs of farm women and their families, including an assessment of the relevance of the extension methodologies and messages used.
- An assessment of the relevance of the project activities as expressed by farm women and their husbands, themselves.
- An assessment of the training activities by the project, including an assessment of advantages and disadvantages of training in centres vs. village-based training and an assessment of the extent to which women trained by the projects have practised the

methods and technologies learnt.

- An assessment of the support by the project to the formation of women's groups and an assessment of the extent to which women trained by the projects have passed on their knowledge about methods and technologies to others.
- An assessment of the cost-efficiency of the projects.
- An assessment of the extent to which the projects have achieved their objectives, including an assessment of the ability of the projects to reach the target group of small and marginal farm women/families.
- An assessment of the impact of the projects in terms of changes in the economic situation of the women and their families.
- An assessment of the impact of the projects in terms of women's empowerment and disempowerment at various levels (individual, family and community level, and collective action level), including an assessment of whether any of the projects have evolved into embryonic 'women's movements' and an assessment of project impact on the role of women in village management.
- An assessment of the impact of the projects on perceptions of gender roles (e.g. impact on intra-household relations and possible changes in attitudes towards the kind of activities, which women and men can undertake).
- An assessment of the sustainability of the project activities, including the sustainability of the women's groups formed under the projects.
- An assessment of the influence of the different state contexts on project implementation and impact.
- An assessment of the ways different policies (e.g. extension, gender) over the years have informed the projects and the impact of this.
- An assessment of the extent to which the different generations and phases of projects reflect a learning process, e.g. in terms of more emphasis put on participatory methods, and the translation of this into results.
- An assessment of the ability of the projects to influence the general state agricultural extension service, including an assessment of the success of the projects in integrating female cadres and extension activities targeted at women into the general extension service.
- An assessment of the replicability of the projects, including an assessment of impact of the projects at national policy level, the impact on similar projects in other parts of India and elsewhere.
- An assessment of the lessons learnt from the projects and their relevance for the last phase of the (two) projects and for similar projects elsewhere.

As the course in agricultural management and extension at the Nordic Agricultural Academy, attended by 142 female extension workers from the four projects since 1994, has recently been subject to a special study (Danida, 2001b), the evaluation will not assess the quality and relevance of training courses held in Denmark but will include relevant references to the study.

5. Methodology

The evaluation will primarily take the form of an impact study, but the study of impact will be linked to the ways the projects have been implemented.

While the detailed fieldwork methodology will be developed at a methodology-cum-planning workshop in Bangalore during the first week of the field study in November

2002, the following elements are expected to be part of the study:

- Surveys of a representative sample of beneficiaries of the four projects including (indicative numbers in brackets): questionnaire-based interviews with farm women (550), questionnaire-based interviews with husbands (55), in-depth interviews with farm women (55), group interviews with farm women groups (50), group interviews with mixed groups of villagers (70), and key informant interviews (50).
- Interaction with beneficiaries and key informants using various participatory methods.
- Analysis of a sample of household income and expenditure patterns with a view to assess changes brought about by the introduction of new methods/technologies linked to the training and extension activities.
- Observation of productive assets and activities and of general conditions of houses, homesteads, and fields.
- Documentary studies (appraisal reports, project implementation plans, review and evaluation reports, impact assessments, etc.).
- Analysis of the (limited) project data on impact.
- Collecting information about the state contexts and policies (statistics, government reports, interviews with key informants, especially in the Departments of Agriculture).
- Collecting information about the all-India context and policies (government reports, interviews with key informants in Ministry of Agriculture, Danish embassy, etc.).
- Interviews with project management and staff (Danida advisers, present and past, staff members at various higher level (getting their views on strengths and weaknesses of the project, innovative features, cost efficiency, replicability, etc.).
- Interviews with 10-15 female agricultural extensionists in each project/state (getting their views on strengths and weaknesses of the project, assessment of the training they have received, their position in the extension service, etc.).
- Interviews with management and staff members at the training centres.

6. Reporting

After the initial field visit by the team leader in August and September 2002 a brief inception report will be produced, presenting preliminary findings, a draft plan for the fieldwork and CVs of the two researchers and eight research assistants to be recruited during the visit. The report will be discussed by the reference group in Denmark and at a methodology –cum-planning workshop in Bangalore during the first week of the field study in November.

Towards the end of the fieldwork in January 2003 a short debriefing paper on each of the projects and a summary of general impressions will be presented during a second workshop in Bangalore or Chennai. The brief papers on each of the projects will also be used during debriefing sessions with project management and other relevant people in each of the four states, and there will be a debriefing session in the Danish Embassy in Delhi with participants from the Ministry of Agriculture. Finally, all the papers will be discussed with the reference group in Denmark.

A draft report will be ready by June 1st 2003. It will consist of a main report summarising and comparing the projects and drawing out general conclusions, recommendations and lessons learnt (approx. 60 pages) and four individual reports using a common format about each of the projects (approx. 40 pages each). The report will be discussed

during a workshop with the reference group.

A final report will be produced not later than three weeks after comments to the draft report have been received from Danida.

All debriefing papers, draft and final report shall be submitted to Danida in an electronic version (Word 2000) as well as in five hard copies. The draft and final reports shall be checked by a native English-speaking professional copy editor before submission to Danida.

7. Composition of the Evaluation Team

The evaluation will be carried out by a multidisciplinary team anchored at the Centre for Development Research, Copenhagen. The team will comprise the following researchers/consultants:

- Steen Folke, economic geographer, Team Leader, Centre for Development Research, Copenhagen.
- Jayalakshmi Indiresan, pedagogue/psychologist, training and gender specialist, Asian Centre for Organisational Research and Development, New Delhi.
- Naila Kabeer, social economist, Institute of Development Studies, Sussex.
- K.N. Ninan, agricultural economist, Institute for Social and Economic Change, Bangalore.
- Welmoed E. Koekebakker, social anthropologist and gender specialist, independent consultant.
- NN, agricultural extension specialist, India.
- NN, India.
- Eight research assistants, India.

Two Indian researchers/consultants – one of whom will be an agricultural extension specialist – and eight research assistants will be recruited during the Team Leader's reconnaissance visit.

8. Timing

The evaluation is planned to take place from August 2002 to June 2003 as follows:

August-September 2002:	Initial field visit by the Team Leader (two weeks)
November 2002-January 2003:	Field study (1½-2½ months in each of the four projects)
June 2003:	Draft report
July 2003:	Final report

9. Background documents

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Annex 2 Main agricultural skills taught by the projects

Soil testing

The soil which is the storehouse of nutrients has to be analysed to find out how much of different types of nutrients are available in it. In addition, the soil testing will also show adverse factors if any in a soil, and how suitable it is for a given crop.

To get the soil tested, it is necessary for farmers to know the best way to collect soil samples so that the test results are accurate. Farmers should also know how to apply right type and right quantity of fertilizers based on soil test results.

Thus soil testing is the most basic skill which helps the farmers to choose right crop for their soil and apply fertilisers only to the extent required (cost effectiveness). It also helps them to adopt appropriate soil and water management practices.

Soil preparation

Soil preparation is important to improve water retention, promote germination of seeds and facilitate crop establishment and to check growth of weeds. Good soil preparation involves ploughing the soil two to three times which brings the soil to its most desirable condition (also called fine tilth). Different soils require different methods of soil preparation. The soil type, its depth, timing of preparation and soil moisture content are the factors which affect the soil tilth. Good soil preparation is most vital for the success of the crop especially in rainfed agriculture. Thus soil preparation is also one of the most important skills which helps farmers to realize good yields and returns.

Seed selection

In many of the crops, local seeds are used for cultivation. Generally a portion of the crop produced is retained as seed material for next crop. In such situations or when seeds are purchased locally, it is very essential to check the seeds for their germination ability and healthy growth. One simple test done to ascertain the quality is to soak seeds in plain / saline water; the seeds which float are rejected for poor quality. The seeds that settle are drained out as good seeds to be used for sowing. In addition, the farmers also have to learn to identify good seeds which are well filled, uniform in size, shape and colour as against light, crinkled malformed seeds which are to be rejected. This simple technique when practiced, greatly benefits the farmers as it ensures high germination rate and healthy seedlings essential for obtaining good yields.

Seed testing

Various tests are carried out to know the quality of seeds. However, at farmer's level the test which is practically most relevant is germination test. It involves placing a known number of pre-soaked seeds, in moist paper wraps. Counting the number of sprouted seeds after a given time gives the germination percentage. This helps the farmer to know whether a given seed lot gives a good number of healthy seedlings for the area to be planted. Without proper seed testing, a farmer may end up in having a poor crop stand leading to reduced yields and income.

Seed treatment

Seed treatment is an essential operation to control fungal diseases and seed borne infec-

tions. This involves seeds being coated with a fungicide formulation. For large scale treatment, slurry of the chemical is prepared and the seeds are smeared with the same using seed drums. Seeds are also treated with biofertilisers like rhizobium, azotobacter or Phosphotica to enhance availability of nutrients like nitrogen and phosphorus. While the chemical treatments are beneficial to mitigate incidence of diseases, biofertilisers help in reducing the usage of fertilizers thus minimizing the cost of production.

Preparing compost

Use of compost is an important organic source for enriching soil with nutrients and beneficial microorganisms essential for crop growth. Application of compost also helps improving soil moisture retention. Thus compost preparation plays a vital role in crop cultivation. Compost is prepared using crop residues, green leaves and cowdung. It is the process of composting, that results in release of nutrients which will help crop growth. Traditional composting, using pit method is slow and takes longer time for decomposition while there are modern methods which are much faster.

NADEP method of composting

The word NADEP is derived from the name of the person Narayan Dev Rao Pandari who invented and popularized this method of composting. In this method rectangular brick chambers are constructed above the ground in which the bio mass is decomposed from 90 to 120 days with good aeration. Later the biomass is covered with clay and dung smear and allowed to decompose under partially anaerobic conditions to get good quality compost within shortest possible time. The compost so prepared will have up to 1.5 % Nitrogen, up to 0.9 % phosphorus and up to 1.4 % potash in addition to significant quantities of micro nutrients. There are other methods wherein even in the usage of brick tank is avoided. Also called kaccha NADEP method, here the biomass is heaped over the ground in a rectangular fashion after initial decomposition and is smeared with soil and cowdung slurry. After the slurry dries for 2 or 3 days circular holes are punched using a tin can. This facilitates partial aeration and seepage of water which will hasten the composting process. The usage of a mat made out of straw and sticks to cover the heap is also popular. This is a low cost technology which can be practiced by any farmer. In fact many women farmers take up NADEP composting in their backyard garden. The compost so obtained is of good quality and the time involved is much shorter. Virtually every bit of waste and the crop residue on the farm could be used in this method. Use of good quality compost not only reduces the cost of fertilizer usage but also nurtures the soil health. Compost is the most essential input in organic farming which is now gaining popularity.

Vermi-compost

The degradation of organic wastes such as cowdung, farm wastes, green leaves normally takes longer time to obtain well decomposed compost. However, the process can be faster when earthworms are used and the resultant compost is called vermi-compost. This compost is rich with plant nutrients and beneficial microorganisms and is devoid of disease causing plant pathogens. Apart from this, use of vermi-compost improves soil conditions and improves soil health. In view of these advantages, it is essential that farmers use vermi-compost for crop cultivation which will enable better returns. Vermicompost can also be prepared on farm at a relatively cheaper cost using available organic wastes on the farm. Vermicompost is also an essential feature of organic farming.

Bio pesticides

Bio pesticides are chemicals having insecticidal properties and are obtained from biologi-

cal source such as plants, animals and some microorganisms. These are ecofriendly and help in reduced use of inorganic pesticides which are harmful and expensive. Some of the bio pesticides that are popularly used are Neem based insecticides, biological agents like bacteria (*Bacillus thuringensis*) etc. These biopesticides are also safe against human beings and non target organisms. They are effective in checking build up of resistance by insects against insecticidal sprays. It is therefore essential that farmers are aware of the advantages of these biopesticides and adopt them for better control of insects and thereby reduce yield losses due to insect damage.

Pest control

Pest control is an important aspect of crop cultivation. Pest incidence varies with crop and season. Higher incidence of pests results in crop damage and reduction in crop yield. Hence it is essential to check their population growth in the initial stages so that crop is not damaged. There are various measures to check the pest incidence like timely spray of suitable inorganic pesticides, biopesticides, crop rotation etc. Once the farmers understand the nature, seasonality and type of damage caused by pests they can take up timely measures to save the crop and to mitigate losses.

Annex 3 A note on empowerment

Introduction

This note provides a brief commentary on the methodology used by the evaluation of four Danida-funded training projects for farming women in India to operationalise a particular conceptual framework for thinking about women's empowerment. These projects were begun at different points of time, three during the early eighties when development thinking of gender issues was dominated by a WID approach which thought in terms of 'categories' ('adding women to development') whereas the fourth was initiated in the mid-1990s by which time the importance of 'relations' had come to the forefront (transform relations of inequality). While 'empowerment' was not an explicit objective of most of these projects, the focus being on improving productivity and food security of poor and marginal farming households, some of the projects did refer to 'social' objectives in their documents and the possibility of empowerment as an unintended consequence was not ruled out in the evaluation methodology.

The next section outlines briefly a framework for thinking about empowerment which was developed in Kabeer (2002) and which was adopted as part of the conceptual framework for the methodology. The rest of this brief note considers how the evaluation study sought to operationalise the framework

Conceptualising empowerment

The concept of empowerment informing the evaluation study defines it in the first instance as the 'the ability to choose', but qualifies 'choice' in a number of ways to make it relevant to the analysis of power. One set of qualifications refers to *the conditions of choice* and the need to distinguish between choices made from the vantage point of alternatives, of having been able to choose otherwise, and choices which actually reflect either the absence of alternative choices or the punishingly high costs of choosing these alternatives. This absence of choice may reflect a material deficit, the lack of resources to afford alternatives, or a discursive deficit, the inability to imagine that alternative choices might exist.

The second set of qualifications refers to the *consequences of choice*. We need to distinguish here between first-order 'strategic choices', those critical in allowing people to live the kinds of lives they want, and the other kinds of choices, some of which may be significant but which only come into play once the first order choices have been made. A woman's ability to choose the names of her children may be an important one but it is secondary to the more strategic choice relating to how many children she would like to have.

The consequences of choice can be further qualified in terms of their *transformatory significance*, the extent to which they express and reproduce pre-existing social inequalities or challenge and destabilise them. Choices which serve to reinforce fundamental inequalities in a society, infringing the basic rights of others or systematically devaluing the self, are not compatible with the notion of 'empowerment' being put forward here.

The process of empowerment can be thought of in terms of changes in three inter-related dimensions:

resources (pre-conditions)	>	agency (process)	>	achievements. (outcomes)
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Resources include not only material resources in the more conventional economic sense, but also the various human and social resources which serve to enhance the ability to exercise choice. Human resources are those properties that are embodied in the human person - their knowledge, creativity and so on - while social resources refer to the range of networks, associations and collectivities to which they belong (both within and outside the family) and which enable or constrain their choices in different ways.

The second dimension of power relates to *agency*, the ability to define one's goals and act upon them. It is clear that agency is at the heart of the notion of empowerment, but as pointed out, agency only constitutes empowerment when it is exercised in transformative ways. Agency is about more than observable action; it also encompasses meaning, motivation and purpose which individuals bring to their activity, their *sense* of agency, and it can be exercised in a variety of individual as well as collective forms.

Resources and agency together constitute what Amartya Sen refers to as capabilities, the potential that people have for living the lives they want, of achieving valued ways of 'being and doing'. These achievements refer to the particular ways of 'being and doing' which are realised by different individuals using the resources they have at their disposal and the different forms of agency that they are able to mobilise. Where these achievements fail to express equitable goals or to transform pre-existing inequalities, they can be taken to indicate some deep-seated constraint on the ability to choose.

Researching empowerment

This conceptualisation of empowerment clearly suggests that research into women's empowerment should be conducted at a number of different analytical levels, employ a variety of different methodologies and encompass a variety of different dimensions. The qualifications on the notion of choice spelt out above represent an attempt to incorporate the structural dimensions of individual choice: the criteria of alternatives relates to the structural conditions under which choices are made while the criteria of consequences relates to the extent to which choice can transforming these structural conditions.

Processes of empowerment can thus entail change at different levels and in different institutional domains: the individual, the household, various other associations that people belong to, and the wider community, economy and polity. It can entail changes in a number of different dimensions: perceptions, attitudes, beliefs and sense of self-worth; in individual and collective behaviour; in access to various resources or in changing terms of which access is gained. Some of these changes can be captured through conventional quantitative methods because they are amenable to 'counting'; others are less tangible and may require more open-ended and qualitative methods. Furthermore, because empowerment involves changes in both individuals and their relationships with others, evidence for it can be sought from the individuals concerned as well as the critical 'others' with whom they interact: husbands, group members, government officials etc. And finally, a critical aspect of researching empowerment relates to the subjective: the meaning and motivations given by women themselves to the forms of agency that they exercise. A woman who takes up work out of desperation is unlikely to feel empowered as a result. A woman who takes up work in order to gain some degree of financial autonomy will experience her work very differently.

Methodological issues in the evaluation

The methodology adopted for the evaluation attempted to take account of this complex-

ity in a number of ways. First of all, it did so through the different kinds of methodologies it adopted in order to gather information. These are listed in Chapter 3 and included household surveys, village studies as well as structured and in-depth interviews with individual women, with husbands, with group members, key informants and group interviews with other villagers. The study thus yielded both quantitative as well as a variety of different kinds of qualitative data. The main use made of the quantitative data in the evaluation is to provide some idea of the order of magnitude of changes reported across the different projects. However, the report relies mainly on the qualitative data, often making use of direct quotations by women, to explore the nature and meaning of changes. It thus relies on first hand accounts for evidence rather than inferring it from quantitative patterns.

Secondly, the methodology sought to take account of the complexity of the processes of empowerment in the kinds of information sought. This included information on:

Resources, specifically those obtained as a result of project intervention. They included increase in women's skills and technical know-how, access to new information, including information about services they were entitled to, new social relations (women's groups) etc.

Agency, specifically forms of agency that were exercised directly or indirectly as a result of project intervention. The information yielded examples of both individual and collective agency. They included 'internal forms of agency' (self-confidence, self-worth), increased economic activities, challenges to husbands' decisions, greater participating in decision-making, creating social spaces, greater mobility, challenging the terms on government services, demanding better services; negotiating with government officials; taking action against alcoholism, taking up issues with panchayat sarpanch; attempts at self-education.

Achievements, specifically those which resulted from the improvement in capabilities (resources and agency) resulting from project intervention. Along with economic achievements (improvements in household income and food security), achievements reported by the evaluation also include improved relationships within the home; greater respect from government officials; some improvements in government services; some response from local panchayats; increase in children's education and some closing of the gender gap in education.

Thirdly, the evaluation sought to take account of the complexity of empowerment processes in the interpretation of the information it gathered. In particular, it sought to explore the meanings given to changes, to track the processes by which changes came about and the extent to which these could be traced to some aspect of project intervention. Thus, evidence that women belonging to a particular group, were meeting together in the evenings to engage in some income-earning activity, while ostensibly about improving household incomes, was also found to be an expression of sociability on the part of women, opportunities for which they had presumably not had before. Evidence that women reported greater sense of self-worth within the home and greater regard from their husbands was explained by them in terms of their enhanced economic agency and particularly their role in reducing household vulnerability. The self confidence and skills acquired through training was cited in some cases as the reason why some women's groups were listened to by their panchayats.

However, certain forms of agency can be considered evidence of empowerment whether or not they yield results. They are achievements in themselves. Women's greater willingness to criticise the quality and terms of services they received from the government is evidence of empowerment, whether or not the services improve; clearly the evidence becomes stronger if they do improve. Their willingness to contest local panchayat elections is also evidence of empowerment whether or not they win the elections. Because, as the evaluation points out, many of the changes documented were 'first time experiences', they have to be seen as the starting point of a journey whose final destination cannot be predicted but whose direction is the right one.

Finally, the complexity of processes of empowerment was captured in the evaluation study by the uneven nature of change in some areas or some issues, by the absence of change in other areas and issues as well as by evidence of negative changes. In fact, one of the negative changes documented by the study - the increase in women's work loads - could be attributed to the absence of change in the domestic division of labour and men's refusal to assist their wives despite the latter's greater role in farming. Elsewhere, the evaluation documented the resilience of caste barriers. Despite bringing women of different caste together for the training, it was observed that groups were formed along caste lines, with scheduled castes often being further marginalised. Nor was there a great deal of evidence of changing gender relations in the wider community. While women's decision-making role within the household had increased, this had not generally translated into a greater decision-making role in the wider community.

Conclusion

There is one general finding reported by the study that deserves reflection. It is evident that many of the findings reported by the evaluation varied for the different training projects. There are a number of different possible explanations; differences in the duration of the projects; differences in their aims, objectives and strategies; differences in the kind of caste, class, religious and other forms of social differentiation that made up the contexts in which the different projects functioned; differences in the technical and personal skills and know-how of different state teams.

We would expect that projects began from a different starting point in Tamil Nadu and Karnataka where gender relations tend to be more egalitarian than in the central and eastern states. The magnitude of certain positive changes reported in Orissa, are therefore unexpected (these included changes in decision-making, improvements in relations with husbands, willingness to criticise government services). Given that there is a high proportion of tribal women involved in the Orissa project, the findings suggest that projects may have their most marked effects among those who may be marginalised but who do not practise restrictive norms with regard to women.

The other unexpected finding is that the oldest project appeared to have had least impact. However, this is explained by differences in the design of the various projects and the fact that the oldest of the projects paid least attention to the transformatory potential of providing new technologies to women. The evaluation attempts to summarise some of the reasons for 'successes' and failures' it came across. Some of the reasons are unique to individuals (entrepreneurial talents), their families (supportive husbands) or officials (responsive officials). Others, however, reflect how the project was implemented: the kind of training given, the extent of follow up, the development of market linkages and so on. Thus while empowerment may occur as an unintended by-product of an intervention, what the evaluation suggests is that design matters.

Empowerment is more likely to be a project impact when it has been anticipated and built into project design. In the words of the report:

It is difficult to conclude that transformative change has occurred because of the way the projects have been designed – that this impact has been built in as a project component. It has not. The projects could have been much more effective in facilitating women's empowerment. The projects have - at least in the way they have been implemented – seen and treated the women as 'beneficiaries' and 'targets' rather than as 'agents'.

Annex 4 Study design and methods

The study design has the character of a contextualised, tailor-made, in-depth impact study. The context is dealt with at national and state level as well as at village level. The study is tailor-made to the four projects under investigation. Since they are rather similar, it has been possible to use a common methodology and instruments (e.g. questionnaires), thus allowing comparisons, but certain project-specific issues have been handled on an individual basis. The study is in-depth in so far as it is based on extensive field-work.

The study of impact has been linked to the ways the projects have been implemented. Comparisons have been made between the different projects and phases regarding implementation issues such as:

- training in centres versus training in the villages,
- top-down versus more participatory approaches,
- methods of formation of women's groups and dissemination of skills,
- integration of female extension officers in the regular extension service,
- cost efficiency.

Central to the impact study has been surveys of a representative sample of beneficiaries of the four projects. These surveys have employed interviews based on standardised questionnaires. A great deal of effort has been taken in stratifying the samples so that they reflect both the time dimension (different phases) and geographical coverage. Considering the different size and duration of the projects, there are larger samples from WYTEP and TANWA than from TEWA and MAPWA. The main emphasis is on the recent phases of the projects. Table 1 gives an overview of the study design as it was actually implemented.

Table 1 Study design, actual (number of interviews in rows 3-6)

	WYTEP	TANWA	TEWA	MAPWA	TOTAL
Districts	9	5	4	3	21
Taluks	12	10	8	6	36
FW Questionnaires	174	160	116	95	545
Husband.Quest.	23	20	16	12	71
FW in-depth	22	14	16	12	64
Group Interviews	26	13	16	8	63
Key informants	Numerous	Numerous	Numerous	Numerous	Numerous
Village studies	2	2	2	2	8

Sampling

The sampling was carried out in the following way: First it was decided to let the study cover 6 districts in Karnataka, 5 in Tamil Nadu, 4 in Orissa and 3 in Madhya Pradesh. In each state all the districts (relevant to the project) were roughly grouped according to geographical location, agro-climatic regions (and farming systems), level of development, cultural factors (especially tribal population in Orissa and Madhya Pradesh) and project

features (e.g. phases). Based on this the required number of districts was randomly drawn so as to ensure broad coverage in terms of the characteristics mentioned. The districts thus selected are shown in table 2. Because of sub-division of certain districts the actual number of districts in Karnataka turned out to be 9 rather than 6.

Table 2 Sample districts

Karnataka	Tamil Nadu	Orissa	Madhya Pradesh
Raichur (& Koppal)	Vellore	Puri	Raisen
Dharwad (& Haveri)	Villupuram	Sambalpur	Chhindwara
Uttara Kannada	Erode	Bolangir	Mandla
Chitradurga	Madurai	Koraput	
Tumkur	Tirunelveli		
Mysore (& Mandya)			

In each district (or pair of districts in three cases in Karnataka) two taluks were then randomly selected. In principle the primary sample then consisted of 16 farm women randomly selected within each of these taluks, i.e. $16 \times 2 \times (6+5+4+3) = 576$. Table 1 shows, that the actual sample deviates slightly from this. The most important deviation is under WYTEP, where the sample in some taluks was reduced from 16 to 12 because these taluks had not been covered by the first phase. For TEWA it was discovered during fieldwork that 13 women in the sample, registered by the project, had in fact not received any training! There was also one such case in WYTEP and MAPWA. The map in figure 1 – as an example – shows the location of the sampled districts and taluks in Karnataka.

Figure 1 Karnataka State, districts and sample taluks



All the actual samples were drawn randomly from lists of trained farm women. For each woman a number of substitutes from the same village – or in some cases, neighbouring villages – were drawn, so that interviews could be conducted even if the sampled woman was not available. Table 3 shows the actual sample by projects and phases. Since the main purpose of the survey is to analyse the impact of the projects, the biggest part of all four samples is drawn from the most recently completed phase (phase I for MAPWA, phase II for the other three projects).

Table 3 Sample of farm women by phases (number and per cent)

	Phase I		Phase II		Phase III	
	No.	%	No.	%	No.	%
WYTEP	30	17	120	69	24	14
TANWA	30	19	130	82		
TEWA	20	18	96	82		
MAPWA	95	100				

The result of this rather elaborate sampling procedure is not a sample that is absolutely representative in a statistical sense. This would require much more time for fieldwork because such a sample – although not necessarily much larger - would be more scattered all over the states. The sampling reflects what could be done within the given time and resources, but the sample is relatively big and carefully stratified so as to make it reasonably representative. In fact this kind of sampling is a distinguishing feature of such a research-based impact study.

Interviews

The women in the sample have been interviewed about their assessment of the training and extension they have received, their use of methods and technologies learnt, their dissemination of knowledge and skills to others, their participation in women's groups, the impact in terms of economic improvement (production, yields, consumption, sales, working hours, division of labour) and in terms of empowerment (greater role in decision making, money spending, greater self esteem, respect by others, group participation, etc.). Besides the interviews, observations have been made of their productive assets and activities and the general conditions of their houses, homesteads and fields. The questionnaire used is reprinted in annex 5.

Linked to these surveys a number of other interviews were carried out. In about 10% of the cases interviews were conducted with the trained women's husbands in order to get their views on the training of their wives and the impact it has had on both productive activities and family relations. In another 10% of the cases the interviews were followed by in-depth interviews with the women, trying to get a more comprehensive picture of their everyday life, their life stories and the role the project has played in this.

In a number of villages in each state group interviews were carried out with members of the farm women's groups in order to assess the actual and potential role of these groups as well as their dynamics and viability. In the same villages key informant interviews plus group interviews with a mixed group of people (including farm women, village leaders, key informants, etc.) were carried out in order to investigate outside views on the project, relations between men and (trained) women and the impact at village level of having groups of trained farm women. In some neighbouring villages (to the 'project villages' in each state), where the projects have not been implemented, similar group interviews were carried out in order to determine whether agricultural knowledge has been disseminated from the project villages and whether the level of knowledge in these villages – particularly among farm women - is generally different from that in the project villages.

To the extent possible the interviews – and the study as such - tried to move beyond the obvious by including a number of alternative indicators for change:

- looking at processes rather than targets,
- looking beyond pre-determined indicators so as to include situations where unexpected change or negative impact occurs (e.g. increased work load, violence, exclusion, break up of pre-existing community structures),
- including women's own indicators of development and well-being,
- developing indicators that allow for understanding change at different levels, including structural relations of class, caste and gender (e.g. PRA on wealth ranking among different castes), and finally:
- looking at an increase in women's agency in all spheres – social, political, economic – as a primary indicator of empowerment.

Village studies

At the end of the fieldwork two villages in each state were purposively selected for more in-depth studies of the village context as well as aspects of the project dynamics and differential impact. In all cases these were villages that had been included in the surveys and where initial group discussions had been held. Now the whole team went back for 1-2 days in order to get a more complete picture of the role played by the project in that particular village. One of the villages selected was one where the project was judged to have had a significant impact, the other one where the project was considered to be largely a failure. The main idea behind the village studies is to find out why the outcome and impact have been so different in the selected villages.

A number of methods were used in the village studies, key informant interviews, group interviews, in-depth interviews as well as a range of PRA techniques, notably transects, social maps, wealth ranking and change assessment and scoring tool (CAST). Emphasis was put on visiting different parts of the village, e.g. general caste sections as well as sections inhabited by dalits (SCs) or adivasis (STs).

Other methods

In order to provide a proper context for the village-based studies information has been gathered in a number of other ways:

- Documentary studies (appraisal reports, project implementation plans, review and evaluation reports, impact assessments, etc.).
- Analysis of the (limited) project data on impact.
- Collecting information about the state contexts and policies (statistics, government reports, interviews with key informants, especially in the Departments of Agriculture).
- Collecting information about the all-India context and policies (government reports, interviews with key informants in Ministry of Agriculture, Danish embassy, etc.).
- Interviews with project management and staff (Danida advisers, present and past, staff members at various higher levels; getting their views on strengths and weaknesses of the project, innovative features, cost efficiency, replicability, etc.).
- Interviews with 10-15 female agricultural extensionists in each project/state (getting their views on strengths and weaknesses of the project, assessment of the training they have received, their position in the extension service, etc.).
- Interviews with management and staff members at the training centres.

Recently a special study (Danida, 2001b) was carried out of the course in agricultural management and extension at the Nordic Agricultural Academy, which 142 female

extension workers from the four projects had attended since 1994. The course and its effects are assessed positively, but it is recommended to shorten the course from six to four months. In view of the existence of this study, the evaluation has not gone in detail with this issue. But based on interviews with a number of the female extension workers who had been to Denmark as well as their colleagues and superiors, an assessment was nevertheless made as presented in chapter 5.

Team composition and fieldwork

The evaluation has been carried out in the period June 2002 – June 2003. In June 2002 the team leader delivered an ‘approach paper’, outlining the objectives, framework, approach and methods. Based on this Terms of Reference were finalised in August. In August – September the team leader went on a reconnaissance tour to the four projects and state capitals (plus Delhi) and at the same time completed recruitment of researchers and research assistants for the evaluation team. The team comprised 8 researchers (5 women, 3 men; 3 from Europe, 5 from India) and 10 research assistants (4 women, 6 men, all Indian). The disciplinary background/competence of the researchers was as follows: 1 economic geographer (team leader), 2 social anthropologists, 2 economists (one agricultural and one gender specialist), 1 agricultural extension specialist, 1 training and gender specialist, 1 institutional specialist. The research assistants all (except one) had a Masters degree in a relevant field, and the majority had extensive fieldwork experience.

Before the actual fieldwork started, the entire team of researchers and assistants held a week long methodology-cum-planning workshop in Bangalore. This included interventions by invited guest speakers (e.g. Gita Sen on gender and Neil Webster on poverty issues) as well as a day’s fieldtrip to WYTEP villages in the vicinity. But the main portion of the workshop was devoted to developing the instruments for fieldwork, the survey questionnaires, checklists for in-depth and group interviews and PRA techniques for the village studies.

The fieldwork was carried out in the period November-January by sub-groups of the team doing parallel surveys and in-depth studies of the projects in the four different states. Each team consisted of 3 members, 1 researcher (female) and 2 assistants (one male, one female), except the WYTEP team which had 2 researchers (one male, one female) and 2 assistants (WYTEP being the oldest and biggest of the projects). The team leader did the sampling for the studies in all four states in order to ensure comparability. All the sub-teams started the fieldwork with pre-testing the survey questionnaires. A special sub-group of 1 researcher and 1 assistant carried out a review of the agricultural training and extension methods of all four projects.

All survey data from the four surveys of farm women (and in some cases, their husbands) were computerised and a large number of tables generated, comparing a range of factors and the various dimensions of project impact. This was supplemented with brief versions of the in-depth interviews, group interviews and other qualitative data.

At the end of the fieldwork a two days workshop for the entire team was held in Chennai. During the workshop preliminary findings of the studies were highlighted. Based on this 4 debriefing papers were written (one about each project), and these were subsequently presented and discussed in meetings in the Departments of Agriculture in Chennai, Bangalore, Bhopal and Bhubaneswar.

Moreover, they were discussed in meetings in the Danish Embassy and the Ministry of Agriculture in Delhi. Later a consolidated debriefing paper about all four projects was prepared and discussed in two meetings with the evaluation's reference group in the Ministry of Foreign Affairs in Copenhagen. The same group has also held a meeting discussing the draft report.

Methodology: the experience

On the whole the fieldwork went well, but it took somewhat more time than anticipated. The main reason for this is that in many cases it was difficult to trace the trained farm women or even their substitutes. Table 4 shows the extent to which first, second or third substitutes or even others were included in the sample because the sampled person was not available (in many cases migrated because of marriage, in other cases just away temporarily). It can be seen that the problems were especially serious in WYTEP, where considerably more than half of those interviewed were substitutes. The main reason for this is that WYTEP being the oldest project had 20% of the sample consisting of women trained under phase I, i.e. back in the 1980s. It was extremely difficult to trace these women so many years later.

Table 4 Sample status of farm women (respondents in main survey) by project

	WYTEP		TANWA		TEWA		MAPWA		All	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sampled	61	35	99	62	92	71	55	57	307	55
1st substitute	21	12	31	19	8	6	13	14	73	13
2nd substitute	16	9	21	13	9	7	8	8	54	10
3rd substitute	18	10	9	6	3	2	9	9	39	7
Others	38	22	0	0	17	13	10	10	65	12
Not registered	21	12	0	0	0	0	1	1	22	4
All	175	100	160	100	129	100	96	100	560	100

The researchers and research assistants had to travel thousands of kilometres (mainly by car), partly on bad roads, to cover the sample. The exercise was carried out in the favourable dry winter season, but even so involved a good deal of hardship. One female research assistant left the team before the end of fieldwork, and the remaining part was covered alone by her male counterpart. In the concluding workshop all the other researchers and assistants expressed that doing fieldwork had been a rewarding experience.

In the main survey the questionnaire-based interviewing of farm women was done by male as well as female research assistants. In practice there were few problems with men interviewing women; most of the trained farm women had enough self confidence and experience to be interviewed by a man. The majority of the interviews with husbands, however, were carried out by male research assistants and most of the in-depth interviews with women by female research assistants. The group interviews generally were conducted by the female researchers.

The questionnaire used in the main survey (Annex 5) no doubt was too comprehensive. On average each of these interviews took 2 hours and 22 minutes (with a range from less than one hour to more than four hours)! This is definitely demanding too much of

the respondents' patience and in some interviews the women did actually get impatient or lost concentration. The hope was that the interviews could have been carried out in about one and a half hour, but this proved to be overoptimistic. Moreover, given the time frame and the limited space for reporting, considerable parts of the survey data were not fully utilised, so it is clear that the main questionnaire should have been shortened.

At the end of each interview the quality was graded by the interviewer: 34% as excellent, 38% as good, 24% as satisfactory and just 1% as unsatisfactory. 83% of the respondents were judged to be fully reliable, 14% partly reliable and just 1% unreliable or evasive. On the whole these figures indicate a result that is more than satisfactory in terms of these factors.

The group interviews were organised at short notice, and sometimes it proved to be difficult to get together an appropriate group. The problems were least with the women's groups, which generally comprised a number of highly motivated women trained under the projects. The mixed groups in project villages were more heterogeneous, and their composition and size varied from case to case. The biggest problems were encountered in organising mixed groups in 'non-project', neighbouring villages (for comparison and in order to assess spin-off effects). Since nobody here had any benefit from the projects, it was difficult to get a motivated group to discuss topics of little interest to them. In fact it must be concluded that the team did not succeed in making these incursions into 'without project' villages sufficiently relevant for comparative purposes. Let it be added that such 'with' and 'without' comparisons are always fraught with problems, and that there is also the ethical problem of taking someone's time, who has no personal interest in the matter. As it were, one of the common reactions in these non-project villages was: Why didn't we get involved in the project?

In contrast the village studies – of a more successful and a less successful village in each state in terms of project impact – taken up at the end of the fieldwork, turned out to be very interesting. Using a combination of PRA techniques (wealth ranking, transect, social mapping, scoring, etc.), key informant interviews, group interviews and other methods, it was possible to unravel the background – in context and intervention – that had produced so different outcomes and impact in the two villages.

To sum up, the approach and study design have succeeded in providing a comprehensive picture of the results of the four training projects for farm women and particularly several dimensions of their impact. The combination of a range of quantitative and qualitative methods has been fruitful. At the same time the research-based methodology puts the findings on relatively firm ground. Nevertheless, it must be borne in mind that evaluation is not an exact science. To a large extent the study has had to be based on interviews with the advantages and drawbacks this entails. The findings are necessarily informed by the researchers' interpretations and judgements and as such should not be seen as the objective or ultimate truth.

Annex 5 Main questionnaire

EVALUATION/IMPACT STUDY OF FOUR TRAINING PROJECTS FOR FARM WOMEN IN INDIA (WYTEP, TANWA, TEWA, MAPWA)

(Questionnaire for Trained Farm Women)

Starting Time of the Interview-----

1. IDENTIFICATION

Name of the Investigator/only Initials			
Date: dd/mm			
Place of Investigation:	State	District	Taluka
		Village	HH_No

STATE CODES: Karnataka =1; Tamil Nadu =2; Orisa = 3; Madya Pradesh = 4

2. RESPONDENT CHARACTERISTICS

2.1.	Name of the respondent	
2.2.	Sample Status: Sampled = 0; 1 st substitute = 1; 2 nd substitute = 2; 3 rd substitute = 3; Others =4	[]
2.3.	Age in Completed years	[]
2.4.	Religion: Hindu =1; Muslim =2; Christian =3; Buddhist =4; Others =5 (specify)	[]
2.5.	Social status: SC = 1; ST = 2; OBC = 3; Forward = 4; Others = 5 (specify)	[]
2.6.	Marital Status: Married =1; Unmarried =2; Widow = 3; Separated = 4; Others =5 (specify)	[]
2.7.	Age at the time of Marriage	[]
2.8.	Number of Children	[]
2.9.	Do you have any health problem Yes =1; No =2	[]
2.10.	If yes, specify the health problem	[]
2.11.	Are you the head of the household? Yes =1; No =2	[]
2.11.1.	If No, who is the head (See the relation code in question No 3.1)	[]
2.12.	Is your family a joint family? Yes =1; No =2	[]

3. HOUSEHOLD CHARACTERISTICS

3.1. Demographic particulars

Name	Age	Sex	Education	Relation to Respondent	Marital Status	Occupation
(1) Respondent						

CODES

Age:

In Completed Years

Sex:

Male = 1; Female = 2

Education:

Illiterate = 1; Literate = 2; Primary = 3; Middle = 4; High School = 5; PUC = 6; Technical Education = 7; Degree and above = 8; Others = 9 (specify)

Relation to Respondent:

respondent = 1; husband = 2; son/daughter = 3; grand child = 4; brother/sister = 5; brother /sister in law = 6; father/mother in law = 7; son/daughter in law = 8; father/mother = 9; grand parent = 10; others = 11 (specify)

Marital Status:

Married = 1; Unmarried = 2; Widow = 3; Separated = 4; Others = 5 (specify)

Occupation:

Cultivation/ Farming = 1; Wage labour = 2; Petty Trade/ Small business = 3; Housewife = 4; Government Service = 5; Non agricultural high income activity = 6; Any other = 9 (specify)

4. TRAINING, EXTENSION AND ADOPTION

4.1. Have you attended any training programme under the project? Yes =1; No =2 []

4.2. Who motivated you to attend the training programme?
Female Extension Officer =1; Other Trained Farm Women =2;
Husband =3; Other Villagers =4; Others = 5 (specify) []

4.3. What are the training programmes under the project you have attended so far?

Name of the Programme	Where (Place)	When (Year)	Duration (In Days)

4.4. Do you think that the duration of the main/first training programme was sufficient?
Sufficient =1; too short =2; too long =3 []

4.5. What are the methods you have learnt through these training?

Methods/Technologies	Relevant/Useful	
	Yes []	No []

4.6. When you started training were you consulted about what you want to learn? Yes =1; No =2 []

4.7.

4.8. What are the methods you have tried out?

Name of The Method/Technology
a)
b)
c)
d)
e)
f)
h)

4.9. Which of these methods are you still using?

Name of The Method/ Technology	Reasons (see codes)	In case of higher yield, How much more in per cent (%)? (If code is 1 in column 2)
a)		
b)		
c)		
d)		
e)		
f)		
h)		

CODES

Reasons: Higher yield =1; Less use of chemical fertilisers =2; less use of chemical pesticides =3; Others =4 (specify)

4.10. Has adoption of methods/technologies meant more
work to you? Yes = 1; No =2 []

4.11. What are the methods you have tried but given up?

Name of The Method/ Technology	Reasons
a)	
b)	
c)	
d)	
e)	
f)	

CODES

Reasons: Opposition from Husband =1; Opposition from Family Members =2; Opposition from Neighbours =3; Opposition from Villagers =4; Opposition from Others (Specify) =5; Expensive / high cost inputs =6; Non availability of required materials locally =7; Insufficient grasp of technique =8; Bad results/No high yields =9; Any other(Specify) =10

4.12. Were you using any of these methods prior to your training?
Yes =1; No =2 []

4.13. How were you selected for attending the training?
By female extension staff =1; By others =2 (specify) []

4.14. Have you passed on your training (knowledge)
to any one? Yes =1; No =2 []

4.14.1. If yes, to whom? Husband =1; Family members =2;
Relatives =3; Friends =4 Neighbours =5; Villagers =6;
others =7 (specify) []

4.14.2. Altogether how many people got knowledge from you? []

4.14.3. If no, why you have not passed the knowledge?

4.15. Have any of those to whom you have passed on your
knowledge put the methods into practice?
Yes =1; No = 2; Don't know =3 []

4.16. Did you learn about agriculture from any other sources?
Yes =1; No =2 []

- 4.17. If yes, specify the source: Other GES staff =1; Husband =2;
other relatives =3; other villagers =4; Papers/magazines =5;
Radio/TV =6; others =7 (specify) []
-
- 4.18. Did any female extension worker visit/contact you?
Yes =1; No =2 []
-
- 4.19. How often has she contacted/visited you?
Regularly =1; once in a week =2; once in a month =3;
others = 4 (specify) []
-
- 4.20. Are you satisfied with her services? Yes =1; No = 2 []
-
- 4.21. If no, what are the reasons

- 4.22. Did any male extension worker visit/contact you?
Yes =1; No =2; []
-
- 4.23. How often has he contacted/visited you?
Regularly =1; once in a week =2; once in a month =3;
others = 4 (specify) []
-
- 4.24. Are you satisfied with his services? Yes =1; No =2 []
-
- 4.25. If no, what are the reasons

- 4.26. What are the technical support/services provided by extension officers?

- 4.27. Did the Extension Worker conduct any demonstration?
Yes =1; No =2 []
-
- 4.28. If yes, what type of demonstration, please specify?

- 4.29. Have you received any support regarding agriculture and
allied activities from other organisation /institutions?
Yes =1; No =2 []
-
- 4.30. If yes, specify

4.31. When you have any problem in agriculture and allied activities whom do you contact/approach? Female extension official =1; Other GES staff =2; Husband =3; other villagers =4; others =5 (specify) []

4.32. TEWA (Orissa)

4.32.1. Is any other member of your household covered under the family approach ? Yes =1; No =2 []

4.32.2. If yes, who (relation to respondent) ? husband =1; son =2; daughter = 3; brother =4; sister = 5; brother =6 sister in law = 7; father in law =8; mother in law = 9; son in law =10; daughter in law =11; father =12; mother = 13; others =14 (specify) []

4.32.3. If yes has this family approach made any change in your agricultural practice? Yes =1; No =2 []

4.32.4. If yes, how (specify)

4.33. WYTEP (Karnataka)

4.33.1. Are you aware of RSK? Yes =1; No =2 []

4.33.2. Have you ever visited RSK? Yes =1; No =2 []

4.33.3. If yes, What was the purpose of the visit?
To get advise =1; to buy inputs =2; others =3 (specify) []

4.33.4. Have your husband/family members visited RSK?
Yes =1; No =2 []

4.33.5. If yes, What was the purpose of the visit?
To get advise =1; to buy inputs =2; others =3(specify) []

5. LAND AND AGRICULTURE

5.1. Land Characteristics in Acres/Cents

Items	Dry land	Garden / Homestead	Irrigated	Total
a) Land owned				
b) Land leased in				
Land leased out				
Total operated area				
[(a+b)-c]				

- 5.2. Who owns the land
(See relation code in Qn number 3.1) []
-
- 5.3. Has your household purchased any land after training?
Yes = 1; No = 2 []
-
- 5.4. If Yes, specify in Acres/cents []
-
- 5.5. Has your household sold any land after training?
Yes = 1; No = 2 []
-
- 5.6. If Yes, specify in Acres/cents []
-
- 5.7. If yes, why did you sell land?

-
- 5.8. How much land area is sown more than once
(double crop)? []
-
- 5.9. What is the area irrigated more than once
(triple crops)? []
-
- 5.10. What is the source of irrigation? Well =1; Bore well =2;
Tank =3; Canal =4; Other =5 (specify) []
-
- 5.11. Has your household purchased any irrigation equipment
or invested in irrigation after training? Yes = 1; No = 2 []
-
- 5.12. If yes specify: Constructed well =1; Deepened well =2;
Constructed bore well =3; Deepened bore well =4;
Lift irrigation =5; Sprinkler =6; Others =7(specify) []
-

5.13. Cropping Pattern

Crops	Area Sown Acre/Cents	Season	Variety	Production Quintals Last Year June 2001- May 02*	Average Yields Last Year In Quintals Per Acre	Approximate Average Yields Before Training Quintals/Acre

CODES

*Bags or other local units must be converted into quintals

Season: Kharif = 1; Rabi = 2; Summer =3

Variety: Local =1; HYV =2

5.14. Which are the new crops you are growing after training? Specify

5.15. What are the crops you have stopped growing after training?
(Specify with reason)

5.16. Have cost of cultivation increased or decreased after training ?
Increased = 1; decreased = 2 []

5.17. If yes, Approximately by how much (in %) []

5.18. Are you using more/less chemical fertilisers after training?
More =1; Less =2 []

5.19. Are you using more/less farm yard manure etc, after training?
More =1; Less =2 []

5.20. Are you using more or less labour after training?
More =1; Less =2 []

5.21. What are the crops irrigated by you? Paddy =1; Wheat =2; Maize =3;
Sugarcane =4; Jovar =5; Ragi =6; Cotton =7; Plantain =8; vegetables =9;
Others =10 (specify) []

5.22. Farm Assets Owned

Item	Number
Tractor	
Trailer	
Thresher	
Bullock cart	
Irrigation pump set	
Others (specify)	

5.23. Has your household purchased any major farm assets after training? Yes = 1; No =2 []

5.24. If Yes, specify

5.25. Has your household sold any major farm assets after training? Yes = 1; No =2 []

5.26. If Yes, specify

5.27. Livestock Ownership

Items	Number (Now)	Before Training
Bullocks		
He Buffaloes		
Milch Animals		
Goats and sheep		
Poultry		
Others		

5.28. Marketing of Crops/Farm Output during last Agriculture Year
(June 01-May 02)

Crop(specify)	Marketed Quantity (Quintals)	Average Price Received(Rs Per Quintal)	Total Amount Received In Rs
Other Farm Output(specify)			

5.29. What are the new crops/commodities you are marketing after training ?

5.30. Are you marketing more/less after training?

More food crops =1; Less food crops =2

More cash crops =3; less cash crops =4

[]

5.31. Household Annual Income

Item	Rupees
Agriculture	
Wage labour	
Horticulture	
Livestock	
Others(specify)	

5.32. Do you feel that your household's economic status has improved since training ? Yes = 1; No = 2

[]

5.33. If Yes, specify whether it is because of training or due to other factors: Partially due to training =1;

Fully due to training =2; Not due to training =3

[]

5.34. In what way do you perceive an improvement ?
 Improved income =1; Improved consumption = 2;
 Purchased farm assets =3; Improved savings = 4;
 Reduced indebtedness =5; others = 6 (specify) []

5.35. Do you have any outstanding loans?
 Yes = 1; No = 2 []

5.36. If Yes, specify

Loan Amount Borrowed (Rs)	Purpose	Source of Borrowing	Rate of Interest

CODES

Purpose: Agriculture =1; House Construction =2; Marriage =3;
 Health Problem =4; Non Agriculture Assets =5; Education =6;
 Consumption =7; Other =8(specify)

Source of Borrowing: Bank =1; Money lender =2; Relatives/Friends =3;
 SHGs =4; Other =5 (specify)

6. WOMEN EMPOWERMENT

Focus:- Training/Extension

6.1. Where did you receive your training? Own Village =1;
Other Village =2; Training centre =3; Other =4 (specify) []

6.1.1. If answer is not own village, would you have preferred to
be trained within your own village? Yes =1; No =2 []

6.2. If answer is training centre or other, Is this the first time
you have been away from your family for so long?
Yes =1; No =2 []

6.3. Aside from the economic benefits of training, was there
anything else you liked about the training/extension that you received?

6.3.1. If so, what are those benefits:

Focus:- Division of labour within household

6.4. Since you first received training, has there been an increase
in your existing activities? Yes =1; No =2 []

6.5. Have you taken up any new activities? Yes =1; No=2 []

6.5.1. If yes, specify:

6.6. Has there been any change in your husbands activities?
Yes =1; No =2 []

6.6.1. If yes, specify :

6.7. What about your workload within the home: has it
changed since the training? Increased =1;
Decreased =2; No change =3 []

6.8. Does your husband help out within the home in any way?
Yes =1; No =2 []

- 6.9. Do you think that your contribution to the household income has increased since training? Yes =1; No =2 []
-
- 6.9.1. If yes, has it increased by: 1-24% =1; 25-49%=2; 50-74%=3; 75% and above =3 []
-
- 6.10. How is this additional income spent?
 Re-invest in farming activity =1; Re-invest in non-farming activity =2;
 Children's education =3; Household expenses =4;
 Housing improvement =5; Repayment of loans = 6;
 Consumer assets =7; Lent out with interest =8;
 lent out without interest =9; Festivities =10; Jewellery =11;
 Other =12 (specify) []
-
- 6.11. After your daily expenses have been met, do you have any savings? Yes =1; No =2 []
-
- 6.11.1. If yes, what form is it in? Cash =1; Bank account =2; SHGs =3; Lent out =4; Jewellery =5; Other =6 (specify) []
-
- 6.11.2. What is the source of these savings? Your income =1; Husbands income =2; Joint income =3 []
-
- 6.11.3. Who decides how it is to be spent? You =1; husband =2; jointly =3; Others =4 (specify) []
-
- Focus:- Changes in selfhood and relationships**
- 6.12. Would you consider yourself to have changed in any of the following ways as a result of your training experiences? Yes =1; No =2 []
-
- 6.12.1. Greater self-confidence in your farming activities? Yes =1; No =2 []
-
- 6.12.2. Greater participation in farm-level decision-making? Yes =1; No =2 []
-
- 6.12.3. Greater participation in family decision making? Yes =1; No = 2 []
-
- 6.12.4. Greater awareness of village matters? Yes =1; No =2 []
-
- 6.13. Have there been any changes in your relations with your husband as a result of your training experiences? Yes =1; No =2 []
-
- 6.13.1. If yes, what was the type of change? Positive =1; Negative =2; Unchanged =3 []
-

- 6.13.2. If changed, how? (Multiple reply are expected):
 Greater respect =1 (; less respect =2 (; More consultation =3 (;
 Less consultation =4 (; More Verbal abuse =5 (; Less Verbal
 abuse =6 (; More physical abuse =7 (; Less physical abuse =8
 (; others =9 (specify) []
-
- 6.13.3. Have there been any changes in your relations with
 other family members as a result of your training experiences?
 Yes =1; No =2 []
-
- 6.13.4. If changed, how? (Multiple reply are expected)
 Greater respect =1(; less respect =2 (; More consultation =3 (;
 Less consultation =4 (; More Verbal abuse =5 (;
 Less Verbal abuse =5 (; others =6 ((specify) []
-
- 6.14. In terms of decision-making, what role do you play in
 the following? No role =1; Informed =2; Consulted =3;
 Joint decision-making =4; Main decision-making =5 []
-
- 6.14.1. In terms of decision-making to introduce new
 technologies on the farm, what role do you play? []
-
- 6.14.2. In terms of decision-making to start new enterprise
 what role do you play? []
-
- 6.14.3. In terms of decision-making to buy major assets,
 what role do you play []
-
- 6.14.4. In terms of decision-making regarding girls education,
 what role do you play []
-
- 6.14.5. In terms of decision-making regarding boys education,
 what role do you play []
-
- 6.14.6. In terms of decision-making regarding age of daughters
 marriage, what role do you play []
-
- 6.14.7. In terms of decision-making regarding other matters,
 what role do you play []
-
- Focus:- Mobility**
- 6.15. Has your contact with outsiders changed since
 participating in this programme? Increased =1;
 Decreased =2; Remained the same =3 []
-
- 6.16. Are you able to talk to strangers without hesitation?
 Yes =1; No =2 []
-
- 6.17. Are you able to talk in public meetings without hesitation?
 Yes =1; No =2 []
-

6.18. How often do you travel outside the village?
 Never =1; Once in a while =2; Once a month =3;
 Twice a month =4; More than twice a month =5 []

6.19. If you travel , does anyone have to travel with you?
 Yes =1; No =2 []

6.20. If yes, who? Male family member =1;
 Female family member =2; Others =3 (specify) []

Focus:- Community perceptions

6.21. Do you think that you are perceived differently within
 your community since receiving the training?
 Yes =1; No =2 []

6.21.1. If yes, specify:

6.22. Do members of the community approach you for
 farming advice? Yes =1; No =2 []

6.23. Any other advice? Yes =1; No =2 []

Focus:- Group-related

6.24. Are you a member of a farm women group:
 Yes =1; No =2 []

6.25. How many members are there in it now? []

6.26. How long has it been in existence
 (in number of years)? []

6.27. How often do you meet in a month? []

6.28. Are there members of other castes in your group?
 Yes =1; No =2 []

6.29. Are there members of other religions in your group?
 Yes =1; No =2 []

6.30. Are there any members who do not own any land
 of their own? Yes =1; No =2 []

6.31. Is your group engaged in agriculture?
 Yes =1; No =2 []

6.32. Is your group engaged in any other income generating activities ?
Yes =1; No =2 []

6.33. During meetings, do you discuss issues other than those related to credit, farming and other income generating activities?
Yes =1; No =2 []

6.34. If yes, what?

6.35. Have you ever participated as a group in any of the following activities:

6.35.1. Marketing your products: Yes =1; No =2 []

6.35.2. Purchasing inputs: Yes =1; No =2 []

6.35.3. Production activities: Yes =1; No =2 []

6.35.4. Helping disadvantaged members/non-members? Yes =1; No =2 []

6.36. Have you ever borrowed any money from your group? Yes =1; No =2 []

6.37. If yes, for what purpose?
Consumption loan =1; Production loan =2;
Emergency loan =3; other =4 (specify) []

6.38. Whose idea was it? Yours =1; Husbands =2;
Other family member =3 []

6.39. Are you a member/have you participated, in any of the following groups/organisations?
Member =1; Participated =2; No =3 []

6.39.1. Farming/credit SHGs under the project []

6.39.2. Other SHGs []

6.39.3. DWCRA groups []

6.39.4. General school committee []

6.39.5. Joint forest management group []

6.39.6. Political party []

6.39.7. Mahila mandal []

6.39.8. Others []

6.40. In times of crisis, who do you turn to for help first?
Family =1; Neighbours =2; Wider kinship =3; SHGs =4;
other =5 (specify) []

6.41. Have you ever taken part in any other kind of protest, campaign or movement since your training?
Yes =1; No =2 []

6.42. If Yes, please specify type of action, reason for action and outcome.

- 6.43. Have you contested in local elections?
Yes =1; No =2 []
-
- 6.44. Have you supported others who have contested?
Yes =1; No =2 []
-
- 6.45. Have you campaigned for others who have contested?
Yes =1; No =2 []
-
- 6.46. Have any members of your SHG contested a
local election? Yes =1; No =2 []
-

Focus:- General

6.47. Do you know:

Item	Yes	No
a. How to sign your name?		
b. How to write your husband's name, children's name, etc?		
c. To count currency notes in large amounts?		
d. To recognise all currency notes?		
e. Read the instructions on the fertiliser/pesticide packet		
f. To calculate interest on loans correctly?		

7. MAJOR HOUSEHOLD ASSETS

- 7.1. Type of house: Kucha (not concreted /cemented) =1;
Pucca (brick and cement)=2; other =3 (specify) []
- 7.2. Type of roof: Tiles =1; Concrete =2; Iron roof =3;
Asbestos =4; Thatched =5; Other =6 (specify) []
- 7.3. What is your main source of drinking water?
Well =1; Private Bore well=2; Community Bore well =3;
Public tap =4; Tap in house =5; Others =6 (specify) []
- 7.4. Do you have electricity in your house? Yes =1; No =2 []
- 7.5. If yes when did you get electricity (year) []
- 7.6. What kind of sanitation you have? Own land =1;
Public land = 2; Private water sealed latrine =2;
Private not water sealed latrine =3; Any other =4
(specify) []
- 7.7. What are the other assets you own?

Assets	Yes=1; no=2
Radio	
Television	
Gober Gas	
LPG Gas	
Telephone	
Bicycle	
Motor cycle	
Four wheeler	
Others	

Ending Time of the Interview _____

Duration of Interview _____

8. INTERVIEW FEATURES

- 8.1. Place of Interview: Inside home =1 Outside home =2;
Homestead =3; Field =4; Other =5 (specify) []
- 8.2. Number of persons present = Husband =1; Wife =2;
Father =3; Mother =4; Brother =5; Sister =6;
Father in-law =7 Brother in-law 8 Other (specify) []
- 8.3. Was the respondent influenced by others?
No =1; Yes, directly =2; Yes, indirectly =3 []
- 8.4. If yes, how

- 8.5. Was the respondent reliable or not? Reliable =1;
partially reliable =2; unreliable =3; evasive =4 []
- 8.6. Was the interview? Excellent =1; Good;
Satisfactory =2; Unsatisfactory =3 []
- 8.7. If Unsatisfactory why

- 8.8. Observations related to the interview

Instruction to the Investigator

All open ended answers must be written in English (Neat and Legible).
In the case of pre-coded question, relevant codes to be entered in the square brackets. Do not forget to give specification whenever you enter the code category 'others'.
In multiple responses, please tick the relevant codes (answers).
'Non Response' and 'Not Applicable' has to be marked in the left margin using the abbreviation NR and NA respectively.

Annex 6 Data on economic, agricultural and human development in India

Table 1 Economic development indicators for India, 1980-2002

Year	Per Capita Income		Year	Human Development Index
	In Current Prices (Rs.)	In Constant (1993-94) Prices (Rs.)		
1980-81	1922	5920	1981	0.302
1985-86	3286	6769	-	
1990-91	6000	8149	1991	0.381
1995-96	11432	9586	-	
2000-01	16707	10306	-	
2001-02	17978	10754	2001	0.471

Source: 1. *National Account Statistics 1950-51 to 1992-93*, CSO, New Delhi, April 2001.
 2. *National Account Statistics*, CSO, New Delhi, July 2001.
 3. *Handbook of Statistics on Indian Economy*, Reserve Bank of India, Mumbai, 2001.
 4. *India: Human Development Report*, Planning Commission, Government of India, 2002.

Table 2 Rural Poverty Trends in India

	Pre-Reform Period (1969 to 1990-91)	Post Reform Period (1991 to 1993-94)	Head Count Ratio %		
			1987-88	1993-94	1999-2000
All India	-1.02*	-0.10	39.2	36.7	37.5
			(39.0)	(37.3)	(27.1)

Note: Figures in parenthesis are official estimates
 Source: Ninan, 2000 and 2002; Datt, 1997.

Table 3 Indicators of agricultural development in India 1980-81 to 2001-02

Indicators	Years						
	1980-81	1985-86	1990-91	1995-96	1996-97/ 1997-98/ 1998-99	1999-2000	2001-2002
Gross cropped area (mil.ha)	172.6	178.5	185.7	187.5	192.6	-	-
Per cent of cropped area under irrigation (%)	28.6	30.4	33.3	38.3	39.8	-	-
Under HYVs (%)	24.9	31.6	35.0	38.6	40.3	-	-
Fertilizer consumption (kgs per ha)	31.9	49.7	47.5	67.57	4.0	94.7	90.5
Cropping Intensity (%)	123.3	126.7	129.9	131.8	135.1	-	-
Foodgrain production (mil.t.)	129.6	150.4	176.4	180.4	-	208.9	196.1
Foodgrain yields (tonne/ha)	1	1.2	1.4	1.5	1.7	1.6	
Oilseeds production (mil.t.)	9.4	10.8	18.6	22.1	20.9	18.2	
Oilseed yields (tonne/ha)	0.5	0.6	0.8	0.9	0.8	0.8	
Proportion of irrigated area under:							
Rice	32.9	32	30.8	30	31	-	-
Wheat	31.2	32.1	30.9	30.4	31.3	-	-
Foodgrains	76	73.9	71.6	60.9	70.9	-	-
Oilseeds	4.6	5.6	9.1	10.2	8.7	-	-
Sugarcane	4.7	4.8	5.4	5.4	5.3	-	-

Sources: Statistical Abstract, India 2001; Fertilizer Statistics 2000-01, FAI, New Delhi

Table 4 Operational holdings and operated area in India during 1980-81 and 1990-91

Category of Land Holdings	Percentage Distribution of				Average Size of Operational Holdings (ha)	
	Operational Holdings		Operated Area			
	1980-81	1990-91	1980-81	1990-91	1980-81	1990-91
Marginal (<1 ha)	56.4	59.4	12	15	0.41	0.39
Small (1-2 ha)	18.1	18.8	14.1	17.4	1.44	1.43
Semi-Medium & Medium (2-10 ha)	23.1	20.2	50.8	50.2	4.05	3.87
Large (10 ha and above)	2.4	1.6	23	17.3	18.1	17.3
Total	100 (88.9)	100 (106.6)	100 (163.8)	100 (165.5)	2.30	1.57

Note: Figures in parenthesis are number of operational holdings in millions and operated area in million ha.
Source: Fertilizer Statistics (various issues)

Table 5 Literacy rate (per cent) in India 1981-2001

Census year	Persons	Males	Females
1981	43.6	56.4	29.8
1991	52.2	64.1	39.3
2001	65.40	75.9	54.2

Source: Census of India 2001

Annex 7 Profile of other projects for comparison

In chapter 9 a comparison is made between the four Danida supported projects and a number of other more or less similar projects. This annex gives a brief account of these other projects as a basis for the comparison. The projects are the following:

- Central Sector Scheme of Women in Agriculture (GoI)
- Food Security Programme (UNDP – GoI)
- Training of Women in Agriculture, Gujarat (The Netherlands)
- Andhra Pradesh Training of Women in Agriculture (The Netherlands)
- Mahila Samakhya (The Netherlands)

Central Sector Scheme of Women in Agriculture

This scheme was launched by the Government of India on a pilot basis during the 8th Five Year Plan (1992-97) in one district each of seven states, namely Himachal Pradesh, Haryana, Punjab, Rajasthan, Uttar Pradesh, Maharashtra and Kerala. Under the 9th Five Year Plan (1997-2002) the scheme was extended to one district of 8 North Eastern hilly states, namely Assam, Sikkim, Arunachal Pradesh, Meghalaya, Nagaland, Manipur, Mizoram and Tripura.

The scheme mobilises women farmers to form Farm Women Groups ('Krishak Mahila Shakti Samuh'). These groups become the focal point for agricultural support services such as extension, technology, inputs, credit etc. The scheme also provides recurrent village based training of 3-10 days duration. The aim is to help the farm women to adopt new technologies in agriculture, horticulture, animal husbandry and allied areas. Organic farming, vermin-composting, bio-technology and nursery raising are among the skills taught. The farm women are also being trained in managerial, entrepreneurial and decision-making skills. The leaders of the farm women groups are trained as link workers. The extension component includes field demonstrations and study tours.

It is expected that the scheme will lead to development of 450 farm women groups as Self Help Groups and provide direct training and extension services to 9,000 farm women. These are in turn expected to disseminate their skills to 90,000 farm women.

Clearly this scheme is very similar to the Danida funded projects as these have evolved in their recent phase with focus on Farm Women Groups/Self Help Groups. Although the scheme is implemented in no less than 15 different states it can be seen that the total number of farm women trained is only a fraction of the numbers trained under the Danida supported projects.

Food Security Programme

The programme was initiated in 1998 as a collaborative venture between the United Nations Development Programme and the Government of India. For the period 1998-2002 UNDP has contributed US\$ 13 million. The programme is an umbrella for a number of sub-programmes in different states with the following objectives: Intensification of agriculture, diversification of farming systems and value addition,

transfer of technologies for sustainable agricultural practices with focus on rain-fed and marginal lands, developing alternate distribution system, and mainstreaming gender issues in agriculture. Four of the six sub-programmes have some similarities with the Danida funded projects, and those implemented in Orissa actively collaborate with TEWA.

Strengthening of Natural Resource Management on Sustainable Livelihood for Women in Tribal Orissa

This sub-programme uses NGOs and women's organisations to facilitate and coordinate linkages between women Self Help Groups and the Directorate of Agriculture. A central objective is to improve the tribal women's skills as farmers and managers of natural resources. The main input is in the form of micro capital assistance plus capacity building. The programme aims at covering 700 SHGs, i.e. approximately 14,000 women in seven districts.

Additional Support to Cyclone Affected Districts in Orissa

The objective of this sub-programme is to enable women SHGs in four cyclone affected districts to reconstruct the agricultural economy and ensure household food security. This is done by providing micro capital assistance, capacity building and infrastructure support to the SHGs. The programme aims at covering 225 SHGs, i.e. approximately 4,500 women.

Empowerment of Women Farmers for Food Security in Uttar Pradesh

This sub-programme aims to enable women farmers from poor and marginalised groups to gain access to productive assets, including land, inputs, technology and credit. At the same time it will establish linkages between Farm Women Groups and the General Extension System. Training, extension and micro capital assistance are the main inputs provided to the groups. The programme will focus on 300 existing SHGs in six districts, 200 of which have been established under Mahila Samakya (see below).

Sustainable Dryland Agriculture by Mahila Sangam in Andhra Pradesh

This sub-programme aims at supporting groups of women farmers to take up dryland farming activities in degraded and fallow lands. The state Department of Agriculture provides training, extension and input support. Micro capital assistance is also provided to the women groups, most of which have been organised by an NGO, 'Mahila Samatha'. The programme will cover 700 women groups in five districts with about 15,500 women.

It can be seen that the approach varies somewhat from one sub-programme to the other. In comparison with the Danida funded projects these programmes rely much less on training and extension and much more on provision of micro capital assistance and capacity building of groups of farm women.

Training of Women in Agriculture (TWA), Gujarat

In Gujarat the Department of Agriculture collaborates with The Netherlands on the implementation of a Training of Women in Agriculture project. The aim of TWA is 'empowerment of women by providing better access to agricultural knowledge to increase production, thereby improving their socio-economic status'. The project is executed by Farmers' Training Centres (FTCs) in twelve districts in the state. The programme started in 1989, entered its second phase in 1997 and ended in 2003.

Its main components according to the plan documents are: needs based training; bottom up extension planning; farmer driven, farmer accountable extension services; promoting farmer interest groups and self help groups and door step delivery of services. The training package consists of a residential institutional training, a village level training, pre-seasonal follow-up, study tours, training of convenors of 'Charcha Mandals' (discussion groups of women farmers) and 'Mahila Krishi Melas' (farm women fairs).

Unlike the Danida supported projects the project plan does not provide for female extension workers. Another major difference with the (majority of the) Danida-supported projects is that the emphasis is on institutional rather than village based training.

Reports on implementation and outcome of the project are far from unequivocal. A recent impact study found that in quantitative terms the project is successful. A total of 209,000 farm women have been trained under TWA. However, it found that considerable numbers of trained women are from large farms; that extension does not address the needs of farm women; that it is top-down, not region specific and not suitable for poor farmers; that the staff lacks gender awareness and that gender sensitivity is not addressed (TWA 2001:18, 21). The latest annual report is positive, both on reaching the target group, determination of the training package in accordance with the needs of the farm women, training methodology, functioning of the women discussion groups, and training impact (TWA 2002).

Andhra Pradesh Training of Women in Agriculture (ANTWA)

ANTWA was the second project aided by The Netherlands for training women farmers in India, starting in 1994. The initial objective of the project was 'to increase agricultural productivity of small and marginal farm women, so as to improve their socio-economic position'. Empowerment objectives were only added in the second phase of the project. The target group was women from small and marginal farms and (later) landless women (ANTWA, n.d., p. 9). The rationale for initiating the project was the overall feminisation of agriculture in Andhra Pradesh due to male migration into non-farm activities. ANTWA is one of the steps taken to increase agricultural productivity.

The trainings were initially mostly 'Mela-like' village based trainings, and they were criticized for being top-down, upper caste and male dominated meetings with pre-determined messages and no practical learning (ANTWA, 1998 p. 9). Consequently, a shift was made towards a judicious combination of Village Based Training (hereafter: VBT) and Institutional Training and later towards exclusively VBT. Training was imparted by the Farmer Training Centres (FTCs) and extension was carried out by Agricultural Officers. The training package consists of one six-day technology training, followed by a one-day pre-season refresher course and specialised training, and result demonstrations.

An assessment in 2000 acknowledged that the project had made technical and economic impact, but observed that the approach was top-down and target-oriented. The approach relied on communicating technical information rather than on enabling women to understand the agro-ecosystem and empowering them to take their own decisions. ANTWA has established women's groups, but questions can be raised about the viability and sustainability of these groups. There has been little convergence with other organisations working with women's Self Help Groups. The report observed lack of integration of ANTWA staff within the over-all organisational set-up of the FTCs under the Department of Agriculture (DoA). Finally, it observed that gender concerns remain to be articulated at all levels (van Walsum 2000).

Phase II of the project started in 2001 and reflects a more gender sensitive approach. It emphasizes the need for going beyond increased productivity and promotes value addition and entrepreneurship. To this end the DoA and the Women and Child Welfare Department work together, the first being in charge of VBT, result demonstration and exposure visits, and the latter in charge of post-harvest value addition training, entrepreneurship development and market linkages.

Mahila Samakhya (MS)

Mahila Samakhya (Education for Women's Equality) was launched in 1989 in pursuance of the goals of the New Education Policy (1986) which brought a conceptual shift from equal opportunities for women to 'education as an agent of change' in the status of women. The programme started in 10 districts of Karnataka, Gujarat and Uttar Pradesh with assistance from The Netherlands and was later extended to Andhra Pradesh and Kerala. The programme was conceived as a women's empowerment programme for socially and economically marginalized women. Its focus was on rural women.

The programme philosophy emphasises the importance of education in empowering women. Education is understood as a 'process of learning to question, critically analyze and seek solutions'. Empowerment is defined as enhancing the self image of women.

Core components of the Mahila Samakhya organisational approach are:

- the role of Sayoginis: women functionaries at village level whose role is to assist in group formation and to provide issue specific knowledge. Activities are chosen in the context of their potential impact on the lives of women and in response to articulated local demands,
- women's collectives at village level (sanghas),
- collective social action,
- the creation of resource agencies at district and state level,
- exposure visits facilitating issue based learning between grassroots women,
- intervention at the political level (e.g. state wide women's policy formulation),
- non-negotiable principles like allowing women sufficient time and space to come together, plan, act, reflect and determine their own development,
- a process- rather than target driven approach.

Sanghas have taken on a great number of activities, but there has been a concern that they failed in creating critical mass. Programme outreach is limited in numbers. So far 1470 villages have been covered. In recent years sanghas are coming together as federa-

tions and the role of MS has changed into one of specialists supporting these federations.

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