

Cafeteria for Women in Agriculture

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NCAP Working Paper 4

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Abbreviations

ADP	Agricultural Development Project, Rajasthan
ATMA	Agricultural Technology Management Agency
AFC	Agricultural Finance Corporation
ANTWA	Andhra Pradesh Women in Agriculture Project, Andhra Pradesh
APWCFC	Andhra Pradesh Womens Cooperative Finance Corporation
BAIF	Bharaitya Agro Industries Federation Development Foundation
BYP	Backyard Poultry
CABM	Centre for Agri-Business Management, Bhubaneswar
CSIR	Council for Scientific and Industrial Research
CSSWA	Central Sector Scheme on Women in Agriculture
DAC	Department of Agriculture and Co-operation
DANIDA	Danish International Development Agency
DoA	Department of Agriculture
DWACRA	Development of Women and Children in Rural Areas
EIRFP	Eastern India Rainfed Farming Project
FAC	Farmers Advisory Committee
FIAC	Farmers Information and Advisory Centres
FTC	Farmers Training Centre
FWG	Farm Women Groups
FWT	Farm Women Training
GoI	Government of India
GVT	Gramin Vikas Trust
ICAR	Indian Council of Agricultural Research
ICT	Information and Communication Technology
IGNOU	Indira Gandhi National Open University
IFAD	International Fund for Agricultural Development
IMAGE	Institute for Management of Agricultural Extension
IMY	Indira Mahila Yojana
ISRO	Indian Space Research Organisation
IWEP	Integrated Women Empowerment Programme
KRIBHCO	Krishi Bharathi Co-operative
KVK	Krishi Vigyan Kendra

LVAW	Lady Village Agricultural Worker
MANAGE	National Institute of Agricultural Extension Management
MAPWA	Madhya Pradesh Women in Agriculture, Madhya Pradesh
MSSRF	M S Swaminathan Research Foundation
NABARD	National Bank for Agricultural and Rural Development
NATP	National Agricultural Technology Project
NCAP	National Centre for Agricultural Economics and Policy Research
NDDB	National Dairy Development Board
NGO	Non-Governmental Organisation
NORAD	Norwegian Agency for Development Cooperation
NRM	Natural Resource Management
NTFP	Non Timber Forest Produce
PRA	Participatory Rural Appraisal
RMK	Rashtriya Mahila Khosh
SAU	State Agricultural University
SHG	Self Help Groups
STEP	Support to Training and Employment Programme for Women
TANWA	Tamil Nadu Women in Agriculture Project, Tamil Nadu
TEWA	Training and Extension for Women in Agriculture, Orissa
TWA	Training of Women in Agriculture, Gujarat
UNDP	United Nations Development Programme
UPDASP	Uttar Pradesh Diversified Agricultural Support Project
UPSLRP	Uttar Pradesh Sodic Land Reclamation Project
WDCLP	Womens' Dairy Co-operative Leadership programme
WDCS	Womens' Dairy Co-operative Societies
WTG	Women Thrift Group
WYTEP	Women and Youth Training and Extension Project, Karnataka

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OVERVIEW

Mainstreaming gender is an important component of the Policy Framework for Agricultural Extension (PFAE) developed by the Ministry of Agriculture (Government of India). The National Centre for Agricultural Economics and Policy Research (NCAP) New Delhi, the Silsoe Research Institute (SRI), United Kingdom and the Cirrus Management Services (CMS), Bangalore have been working towards the development of the gender aspect of PFAE and for the preparation of guidelines on how to support the implementation of this aspect of the policy. The Ministry of Agriculture would like to offer a cafeteria of programmes to all the states to implement. The cafeteria is essentially a wide selection of approaches and interventions from which states can pick and choose what they require based on the specific ground situations.

The initial step was to conduct a review of experiences from the implementation of agricultural programmes for women. The focus of this exercise was to draw on lessons and best practices from specific farm women programmes that have already been implemented. Prior to the implementation of specific farm women programmes, woman farmers had been neglected by the agricultural extension system. There is enough evidence to understand that implementation of special programmes had improved farm women's access to information on agricultural technology, led to increased adoption of technology and realisation of economic benefits. But there were several limitations too. Constraints in implementation and limitations of approaches are discussed in this document. This should be seen as steps in a series of learning cycles necessary for the successful development and implementation of future programmes.

This was followed by consultations with those associated with implementation of selected programmes and organisation of a brainstorming session to identify themes for the cafeteria. This document provides guidance notes on each of the identified themes, namely, mobilisation of groups; group formation and capacity development; linkages and support; communication and media support to extension; technology development and promotions; staffing; gender sensitisation; and sustainability. A number of issues that need to be borne in mind in the development of new programmes and projects for women in agriculture are also highlighted in this document. The main ones are:

- *New projects that are proposed should build on groups, networks, organisational capacity and resources already in place and functioning from existing project initiatives.*
- *It should take on and build on lessons from existing projects.*
- *Apart from extending agricultural technologies on production and post harvest to women farmers, new programmes should concentrate on providing crucial back-up services and support (backward and forward linkages) to help women groups to successfully adopt new techniques, crops and enterprises to increase their incomes and employment opportunities.*
- *New programmes should be planned with adequate resources for mobilising women, forming groups, improving capacity and capability in technical, organisational and commercial (business/micro-enterprises) sectors and support systems (credit, raw materials and markets).*

- *It should be prepared jointly in consultations with other organisations (public, private, voluntary) that can potentially complement and supplement the efforts of the DoA.*

The document also highlights the importance of obtaining and analysing the right type of information in the development of project proposals, how to select relevant interventions, identify suitable partners, develop better institutional arrangements and ensure transparent functioning.

The cafeteria is based on a number of assumptions. These are:

- *The cafeteria is not seen as a uniform approach to dealing with the needs of women farmers across India.*
- *Programme and projects need to be developed from grass roots level and are based on a thorough needs assessment of the local situation in each state/district.*
- *Each district has the flexibility to develop a programme or project that is relevant to their local situations.*
- *The district/block level authorities have sufficient operational flexibility in implementing the programmes or projects.*
- *There is sufficient flexibility in the design of the programme or project that allows opportunity to learn from progress and to make mid-course corrections as required.*
- *Programmes are developed in partnership with different agencies and organisations.*

We hope this report would be of use to the Ministry of Agriculture, the Department of Agriculture of various states and many other organisations interested in developing interventions critical for improving the livelihoods of women in agricultural communities.

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CAFETERIA FOR WOMEN IN AGRICULTURE

1. Introduction

Approximately 1.3 billion people world wide are living in poverty. 70 % of this are women (UNDP, 1995). This 'feminisation' of poverty has become influential in the development of policy and identification of practical solutions and this has resulted in the development and implementation of several programmes focussing only on women (e.g. micro-credit initiatives). Experience shows that if women rather than men are targeted with resources, the end result is that welfare benefits will accrue directly to them and their children (Buvinic and Gupta, 1997). However, providing women with access to resources alone without giving due regard to changing or challenging gender power relations may not lead to empowerment of women. To achieve a holistic change in the overall economic, social and political circumstances of women, different strategies are required which encompass advocacy, access to resources capacity building and organisational issues.

In the Asia-Pacific region, it has been shown conclusively that women bear the brunt of poverty disproportionately. Rural women also face the disadvantages of being poorly educated and inadequately informed of developments as they occur (Balakrishnan, 2001). Agricultural extension services have a long tradition of working predominantly with men. However, due to improved awareness in the last two decades, on the role that women play in agriculture and that agriculture continues to remain a very important source of livelihood for women, special programmes have been initiated and targeted at women in agriculture. Using the Asia-Pacific region as an example, India has also implemented women in agriculture programmes. These programmes have conclusively proved that women, when given access to improved information and resources could increase agricultural production significantly. However, to make sustainable improvements in the livelihoods of rural women, their access to credit and opportunities for employment, enterprise development and income generation opportunities also have to be improved. The need for extension to play a wider role to achieve these needs is presently accepted at the policy level, although in practice there is little evidence of such a change.

1.1 Gender in Agriculture

The term 'gender' describes the socially determined attributes of men and women. This includes male and female roles in economic and non-economic functions, differential access to and control over resources and differences in knowledge and skills. The term 'sex' denotes the physical and biological differences between males and females. The sexual division of labour for both agricultural and domestic tasks varies greatly by community and ethnic group and it is difficult to make generalisations about the roles that men, women and children play. However, through a process of gender analysis it is clear that women remain invisible, their presence not counted, their contribution to agriculture remains unaccounted and their priorities and problems remain unattended.

The Indian National Policy for the Empowerment of Women (2001) has stressed the need to mainstream “Gender Perspectives” in the process of development and envisages women specific interventions, where there are currently gaps in policies and programmes. The National Agricultural Policy of India (2000) has highlighted the need for incorporating gender issues into the agricultural development agenda to provide recognition of women’s role as farmers and producers of crops and livestock, users of technology, active agents in marketing, processing and storage of food and agricultural labourers. An “Expert Committee on Women in Agriculture” had been constituted in the Department of Agriculture and Co-operation, Ministry of Agriculture, to analyse policies and strategies and to make suggestions on how to make agricultural policies gender friendly. Recommendations of the Committee have been translated into an Action Plan by the DAC for necessary implementation.

Box 1 contains some key facts related to women in agriculture in India. Since the 1980’s, special programmes (see Annex I for details) to address the information and technological needs of woman farmers have been initiated in several states by the DoA. These programmes were restricted to only a few villages in selected blocks and women extension personnel were exclusively recruited (and trained) to implement these programmes mainly because the number of women extension personnel in the state DoA is limited. The possibility of recruiting more numbers of women extension functionaries is limited due to difficult financial situation of many state governments. In response to this, efforts are currently being made to mainstream gender in agricultural extension, whereby the General Extension Service is drawn into providing services specifically to women farmers. Efforts are also being made to mainstream gender concerns in all other agricultural development programmes.

1.2 Background of this exercise

Mainstreaming gender is an important element in the new “Policy Framework for Agricultural Extension”, developed by the Ministry of Agriculture (DAC, 2000). In order to improve women’s access to agricultural extension services, the Ministry seeks to develop a cafeteria of approaches that could be offered to state governments for implementation under the macro management mode.

1.2.1 The Purpose

The purpose of this exercise has been primarily to assist the Ministry of Agriculture in developing a cafeteria of programmes that could be transformed into interventions and actions critical to improving the livelihoods of women in agricultural communities.

The focus of this exercise was to draw on lessons and best practices from specific farm women programmes that have already been implemented rather than reviewing performance or finding faults in them.

Box 1 Key facts related to women in agriculture in india

- Indian population is 48.27% women and the number is 495.7 million (Census, 2001)
- 72.72 % of the women live in rural areas.
- 45.84% of the female population is illiterate. In rural areas the corresponding figure 53.3%.
- 26% of the population lived below the poverty line in 1999-2000.
- In rural areas, the incidence of poverty is highest among agricultural and other labour (as high as 47 % and 29 % respectively in 1999-2000), followed by self-employed in non-agriculture and self-employed in agriculture in that order. However from the distribution of the total poor across different groups it is seen that the largest fraction of the poor in rural areas belongs to agricultural labour followed by “self employed in agriculture” category.
- The labour force participation rate of women is 31.56 %, less than half of the men’s rate of 68.44%.
- Among rural women workers, 87% are employed in agriculture as labourers and cultivators.
- Women work for longer hours and participate in most of the field work related to crop production and have a significantly higher involvement in livestock production, forest resource production and fishery.
- Even within a region, their involvement varies widely among different ecological sub zones, farming system, caste, class and stages in the family cycle. Generally, the poorer the family, the greater the involvement of women in agricultural activities.
- Women have extensive workloads with dual responsibility for many of the farm operations and household management (fetching water, cooking and taking care of children).
- Despite women’s significant and crucial role in agricultural development and allied fields, they have virtually no access to agricultural information, services or production assets and have very limited control over their earnings.
- Development of agriculture and other non-farm enterprises in rural areas continue to be the key factor in reducing poverty.

Prior to the implementation of specific farm women programmes, women farmers had been neglected by the agricultural extension system. Performance evaluation reports reveal that these farm women programmes have made impact in terms of improving access to information on agricultural technology, adoption of technology and gaining benefits from their use. But, there were also limitations, mainly attributed to the limited flexibility of rigid hierarchical organisations such as state Departments of Agriculture (DoA) in responding to changes demanded from the field. A better understanding of lessons from the implementation of these programmes is essential for developing a cafeteria of approaches for empowering farm women.

1.2.2 The Approach

The initial step to developing a cafeteria for women in agriculture was to conduct a literature review of programmes aimed specifically at capacity development of rural women in India (a brief overview of the projects and programmes is given in Annex I). The second step was to have consultations with those associated directly with the implementation of these programmes to obtain their views. Thirdly, a brainstorming session was held to identify themes for the cafeteria on women in agriculture (the process of identifying themes and details of the brain storming session is given in Annex II) and to draft the cafeteria for presentation to the Ministry of agriculture for comments.

2. Lessons from on-going Programmes

The following section is primarily based on a review of the literature available on experiences related to the implementation of programmes for farm women (as described in Annex I). This includes:

- evaluation reports
- performance review reports
- proceedings of workshops and meetings on women in agriculture
- field visits to women groups
- discussions with those involved with the implementation of these programmes

As mentioned earlier, the objective of this exercise was to learn from the experiences and to benefit planning and implementation of future programmes. Constraints in implementation and limitations of approaches are discussed here. This should not be interpreted as judgmental (“failures”), but as steps in a series of learning cycles, necessary for successful development and implementation of future programmes. It is pertinent to note here that for all the organisations involved, implementing programmes for women in agricultural communities has been a new experience.

2.1 Assessing Training and Extension Needs

Identifying the right training and extension needs of women (which programmes target) is one of the most important steps in initiating any development programme. Almost all the programmes had spent time and money in identifying these needs, but rarely had addressed them in planning the training programmes.

A lot of data is collected for assessing the training needs of farm women, (data covers even local physical conditions for farming as well as some socio-economic data of the population). However, this data is often not analysed fully because staff members have not been trained in their analysis and in how to develop action plans that relate to the actual farming problem identified (DANIDA, 1995). Women’s role in agriculture with regard to gender related division of labour, resource allocation, decision-making and control of income is not taken into consideration in the needs assessment. Similarly, the local agricultural situation, i.e. availability of farming inputs and market facilities for products are not normally included in needs assessments. In the ANTWA programme, it was noticed that the needs assessment was not conducted according to the specified guidelines in many cases. The reasons cited for this lapse included: the busy time schedule, large jurisdiction and mobility constraints of Agricultural Officers (Deshingkar, 1999).

The needs assessment for formal training courses, whether in a village or in the training centres, has to focus on the problems in the area as well as on the problems expressed by the target group

themselves. Staff members' ability to do this has to be built up over a long period, as it requires technical knowledge, experience and analytical ability.

2.2 Selection of Trainees

Women belonging to small and marginal farm household have been the target audience for many training programmes. Getting enough trainees has been a problem in itself in the past. Many trainee woman farmers had virtually no time to spare for these meetings and were not fully convinced about the benefits of attending these programmes. Their participation in training and other extension programmes are severely constrained due to their inability to release time from their already over stretched daily routines. But over the years, with visible benefits of getting trained in scientific agriculture, this reluctance has subsided.

Selection of candidates for training is not always based on scientific approach. This has resulted in selection of women who are not poor or belonging to small and marginal holdings. "The belief that more "progressive" women would be more receptive to training has also influenced selection in a few cases. The women selected were of the same caste as it was believed that they could communicate more easily to each other and lower castes were not given preference as they "are illiterate and have no land" (Deshingkar, 1999).

2.3 Curriculum Development

In TANWA and MAPWA, a group of resource persons assisted in drawing up curricula, in assessing the technical messages and to give ideas in what form the new message should be developed. In TANWA, Agricultural Officers were trained to prepare curriculum separately for each training programme based upon training needs of woman farmers of each area, crops grown, potential income generation options etc. In TEWA, consultants were involved in producing a resource book "Skills made easy", which included skills geared towards women. However, in the women's training programme in Rajasthan (ADP), no such efforts were made and the choice of content and approach was left to the resource persons, leading to a less specific and more uniform approach to teaching (AFC, 1999).

2.4 Skills Taught

Where front line workers visit women farmers individually, e.g. in the TEWA project, the women have direct influence on the subjects taught. But where the projects conducted common training sessions or train women farmers in groups, the training needs were stipulated by staff, based on their interpretation of available background information.

The skills selected tend to follow a uniform pattern in all the four DANIDA projects: seed treatment, seed selection, nursery management, maintenance of plant population, fertiliser application, plant

protection, seed storage practices, mushroom cultivation, composting and mixing cattle field (DANIDA, 1995). The skills taught under TANWA include, increasing fertiliser use efficiency, organic manure conservation Farm Yard Manure (FYM), compost enriched FYM), use of bio-fertiliser, tree cropping, field identification of pest/diseases, seed treatment, rat control and grain storage.

TEWA has a standard list of 23 skills, which may be offered to woman farmers. Initially, each district made a shortlist of 10-15 of these skills from which the LVAWs made a further selection. It was found that the most popular skills, in training for woman farmers, were kitchen gardening, rat control, preparation and use of plant protection chemicals and scientific storage methods (DANIDA, 1997). However, activities that are mostly performed by women, such as poultry, livestock, horticulture and backyard farming, were often neglected in the training programmes offered by DANIDA (1995). In TEWA, the subjects discussed also had a very narrow focus on crop production, while ignoring topics such as animal husbandry and agro-forestry (DANIDA, 1997). Systematic training shortcomings were also found in ANTWA, but it was found also that wherever proper needs assessment was conducted, specific training needs were revealed. Preferences for training needs by women were on food and nutrition, animal husbandry and poultry development (Deshingkar, 1999). However, these needs were not taken on board during project implementation.

This evaluation of the projects suggests that programmes for women should expand their definition of agriculture beyond technologies for crop production and should be based on site specific needs assessments, for example:

- The DANIDA review (1995) recommended that technologies for livestock and dryland farming needed more attention.
- The review of the TEWA programme recommended that animal husbandry must receive sufficient and adequate attention in the training programmes (for staff as well) as an option for woman farmers to generate income, and that it should be seen as a part of integrated farming systems.
- The TEWA review also recommended that the project seek out the possibilities of incorporating skills targeted at tribal farming systems, such as the use of non-timber forest products (e.g. medicinal plants, green manure, dyes), and skills related to upland farming systems.
- Studies have shown that, for a large number of poorer rural households, rearing milk animals (Box 2) and poultry (Box 3) is an important source of income, is women's domain, and the related earnings belong to women.

The EIRFP has taken these issues on board and has relevant specific components in its project, for example training on livestock production, horticulture, aqua-culture and homestead farming. In the dry land areas, specific training on soil and water conservation, irrigation and seed priming has been offered.

Box 2 Women and Livestock Production

Dairying is an occupation that supports the livelihoods of many women, especially the rural poor in India. About 75 million women as against 15 million men are engaged in dairying in India (GoI, 2001). Women contribute 71% of the labour force in livestock farming (Singh, 1999) and the majority of landless cattle keepers in rural areas are women. Women have greater control over this resource, compared to other resources like land in the village. Cattle also act as financial reserves in crisis situations, and thus reduce vulnerability. The majority of the rural poor still depend on agricultural labour, which does not offer a year round earning opportunity, and livestock rearing supplements their income. Dairying provides regular cash income for the household, which is used especially on food and education of children. The contribution of dairying to the total income ranges between 50-80% in the families surveyed in four southern states (Ramkumar and Rao, 2001).

Studies indicate that goat keeping and backyard poultry are inversely related to socio-economic status and are largely women's domains: the majority of poor, underprivileged and landless families in rainfed and underdeveloped areas own goats and/or backyard poultry (Rangnekar, 1998). They are examples of low external input production systems, and women regard them positively because they are:

- a source of low cost food production on occasions when guests have to be entertained;
- easy to manage and need only marginal inputs;
- easy to convert into cash in emergencies.

However, women are not in favour of increasing the number of goats per household because of the management difficulties.

Specific challenges in reaching out to small livestock holders are:

- the general focus on disease control measures with little or no attention to other aspects, such as general care and management, feeding improvement and fodder resource development;
- a predominantly veterinary hospital and dispensary based approach, with little attention to the potential of field extension;
- a focus on commercial production, overlooking small and backyard production.

2.5 Training methods

The WYTEP programme is based on a long (10 days) institutional training course along with at least three years extension input from a woman assistant agricultural officer. The TANWA project has a short (5 days) village based training course conducted by a group of woman agricultural officers followed by a two-year village visit programme. The MAPWA programme is similar to the TANWA programme. The TEWA programme relies on lady village agricultural workers to conduct training at farm/village level. The TWA programme requires 5-day institutional training and supplemented by village based training. In the EIRFP, the village community organiser provides training together with project field specialists in their respective fields or they organize training programmes with other local organizations. In the ANTWA programme, a 6-day pre-seasonal training programme is organised by lady agricultural officers at the village level.

Box 3 Women in Poultry Production

Traditional backyard poultry production is common in interior rural areas and particularly with underprivileged communities. Amongst tribal families it is common practice to maintain backyard poultry. Poor farm families, who either do not have backyard space or migrate for work, sell their stock of birds prior to migration and acquire new ones upon their return. Poultry is a source of low cost, high quality food for the family and small cash for women through sale of birds and eggs. Most women are not interested in expanding poultry production and using improved breeds, due to management difficulties and the need for external inputs required (Rangnekar, 1998). Most of the procurement and sale of birds and eggs are done within the village and in local weekly markets.

Back yard poultry (BYP) has emerged as a key area of interest, particularly in the tribal districts of the MAPWA project area, where a large number of households are already rearing poultry (Kumtakar (1999a). Special training programmes in BYP have been received well and there are further demands for more such trainings particularly in the tribal areas. Studies conducted in Madhya Pradesh in Tamia block of Chhindwara district and Shahpura and Kundam blocks of Jabalpur district revealed that BYP has strong potential as an income generating activity (Kumtakar 1999a and Kumtakar 1999b). Major findings of their study include:

- poultry is an important supplementary source of income
- there is a universal preference for desi breeds
- earnings from poultry are presently low due to: rearing of poultry using traditional methods, lack of awareness and knowledge about improved poultry practices, weak and unhealthy birds, continuous outbreak of diseases leading to high mortality (especially at young chick stage), low egg production, lack of veterinary extension services and also no facility for medication or vaccination.

Suggestions to improve BYP include:

- provision of a facility for low-cost feed and medication/vaccination to be made available in the villages
- providing a better variety of 'desi' birds, that has a better egg laying capacity
- training of women as "vaccinators" and as manufacturers in low cost feed formulations at the village level
- training on simple low-cost management skills, such as, covering bamboo baskets with newspaper and cow dung for insulation during brooding season and for protection in the winter, creep feeding, low-cost balanced feed formulations, awareness about hygiene for feeding and watering of birds, burning of a lamp or charcoal burner inside the brooder in winter to give warmth to the chicks to reduce early chick mortality.

There is a need for creating awareness, training and systematic planning on BYP to help it develop into a sustainable project to up-lift the rural population.

Under the CSSWA, village based trainings for 3 days are organised at two different intervals for women groups. For those districts in project Phase II, there was a sandwich/reinforcement training which lasts for 10 days in first year and 5 days in subsequent years. In addition to this, there was training for link workers (convenors of woman farmers groups) for 3 days at 2 different intervals.

The available experiences documented indicate that there are advantages and disadvantages for both institutional and village level based training. These are summarised in Box 4.

Box 4 Advantages and Disadvantages of Institutional and Village Based Training		
Training	Advantages	Disadvantages
Institutional Training	Can use classroom facilities and audio-visual equipment Provide opportunities for women to spend leisure time in the evenings to share experiences and learn from each other	Women from small and marginal families more reluctant to leave family and housework behind
Village Based Training	Relatively easy for women to participate Greater chance of technologies being transferred to other women members	Higher risk of being distracted Difficulties in getting an acceptable place for everyone to assemble Difficult to use audio-visual equipments such as Over Head Projector, slide projector, TV, video etc. due to lack of dependable source of electricity and class room facility Difficulties in transporting audio-visual equipment Time of experts wasted in travel and reluctance of experts to travel to interior locations

2.6 Group Approach

The advantages of a group approach to extension and for the general empowerment of women cannot be overstated. All programmes currently being implemented in India are using the group approach to extension. Groups can make profits from a production activity if it can collectively engage in the purchase of inputs and services as well as the transportation and marketing of produce. A group setting also helps facilitate adoption of new practices.

Where groups already exist, capacity building of existing groups can be more successful than forming a new group to which members are less likely to be committed. However, there does exist a tendency for each new organisation to start new women SHGs to maintain their own identity.

This defeats the basic purpose of forming women SHGs. Many rural women also find it difficult to release time from their otherwise tight schedules and to save money in different groups.

Wherever possible new programmes should be “plugged in” to existing groups so that the time and effort for setting up new groups could be saved. However, in certain situations, new groups have to be formed if the existing groups do not represent the target audience of the programme to be implemented. In these situations, group size should be kept flexible and ideally restricted to membership of between 10 and 20. A small number could help in forming groups of homogenous socio-economic status and facilitate effective and cordial communication among the members.

While groups have proven to be a highly successful mechanism to aid development, they are not a universal panacea or appropriate for meeting all women’s needs in agriculture. Care is needed to sort out situations where collective efforts by groups is effective and where individual activity structured or accessed through group membership is more effective and efficient (Jiggins et al, 1997).

2.7 Use of Teaching Methods and Aids

Different kinds of teaching methods are used extensively in all the projects and programmes described in Annex I, probably as a result of the very well organised trainer’s programmes run by these projects and programmes. Many of the projects and programmes have developed a range of training methods and materials that are aimed at woman farmers using female analogues and with illustrations showing women practicing agricultural skills. It is thought that some of the material could be produced centrally in order to improve quality (DANIDA, 1988) and so that the extension staff could spend more time in attending to other details of the training sessions. Funds allotted for the preparation of teaching material, seed demonstration and supplies and inputs for follow-up demonstration were found inadequate in certain cases. For instance, in the ANTWA project, Rs.500/- per half acre was sanctioned for the purchase and supply of inputs and demonstrations. However, in some areas, which grow input-intensive crops such as paddy and groundnut, this amount was not sufficient to purchase all the required inputs (Deshingkar, 1999).

Demonstrations are an important aspect of technology transfer in all the projects described in Annex I. However, during project implementation, very little attention was paid to demonstrations, especially the use of comparative result demonstrations that can illustrate the benefits to be gained by applying a new technology (DANIDA, 1995). In the ADP Training of Women Project in Rajasthan, practical demonstrations were few and far between, except in the case of seed treatment, rhizobium culture and improved seed varieties (AFC, 1999). The EIRFP also had insufficient numbers of specialised staff for field level demonstrations of new agricultural technologies (Seth and Bilgi 2002).

Greater attention needs to be paid to the management of inputs rather than just their use (Grover, 1997). A review of the CSSWA project in Bulandshahr district of Uttar Pradesh showed that there

were more theoretical classes and few practical classes in the training programme. Sufficient time was also not given to members to try out recommended practices individually.

The effectiveness of woman farmers could be enhanced considerably if a few principles are kept in focus while planning training programmes. Box 5 presents a synthesis of key points.

Box 5 Tips for improving the effectiveness of training programmes for women Farmers

- Women dislike long lectures and can more effectively learn while doing; hence the programme should be practical.
- Women prefer discussing problems that they currently face.
- Women prefer training programmes at locations closer to home.
- Training on crop practices should be between 2-7 days long and paced in a way that complements the agricultural calendar rather than interfering with it. Training should be provided ahead of the land preparation/sowing operation and at the stage of crop maturity.
- The desirable time for meetings is in the afternoon, when women are relatively free.
- Illiteracy is very high among rural women and long notes are of limited use.
- Audio-visual material should be used to the maximum extent.
- Use of local dialects is important in focussing attention.
- Involvement of women training and extension officers would increase effectiveness of the programme.
- For effective programmes and participation of women, it is necessary to have as much homogeneity as possible in the groups chosen for training or extension meetings.
- Special efforts should be made to promote interaction and provide opportunities for practical work.
- Women's training must be planned according to their preferences, learning needs and abilities.

(Synthesised from various studies)

2.8 Impact

2.8.1 Adoption of technologies

All project and programmes reviewed in this document have noted an increase in the adoption of technologies, such as, new crops and new enterprises, by trained women farmers. Furthermore, due to greater interactions between women farmers and officers of the state department of agriculture, the number of woman farmers taking advice on agriculture matters from the DoA has increased. Other activities, such as, study tour, exhibitions and *mahila gohsti* have also brought group members into contact with new technologies.

2.8.2 Non-adoption of technologies

The programmes and projects reviewed indicate that technology adoption has not been uniform with respect to all technologies transferred through training. For instance, “due to lesser post training follow up and higher risk perception of farm women, the rate of adoption of newly introduced/tried practices like sericulture and bee keeping was relatively low (CABM, 2001)”. Poor marketing facilities and lack of follow-up support was the cause of poor rates of adoption of many enterprises introduced through the CSSWA project in Kerala (Sreekumar, 2001). Lack of proper planning or deployment of support facilities also resulted in the non-adoption of several new enterprises. The enterprises were selected at the commencement of the scheme irrespective of the particular interests or inclinations of farm women in the CSSWA project in Kerala. The EIRFP experience shows that adoption of mechanical technologies will only be sustainable if there are facilities for maintenance and repair, dealer networks established and hire schemes available, linkages established for financial and technical support for farmers and focused training programmes on the correct use of technologies.

2.8.3 Other behavioural changes

Apart from adoption of technologies, many of the programmes for women have contributed to other desirable behavioural changes, such as, improved communication skills, greater interaction with males in terms of exchange of ideas, higher levels of self confidence, greater risk taking decisions and better problem solving ability. In the TEWA project, besides socio-economic changes among woman farmers, those woman farmers who were organised into groups like *mahila mandals* or SHGs had become better aware of their rights and privileges than where such groups were not formed (CABM, 2001). In the TANWA project, increased incomes by women have led to a chain of encouraging developments in family living style. This has been shown by indicators like improved nutrition leading to better health, greater attention to education of children and women actively participating in political process (Balasubramanyam, 2002). Knowledge of seed storage practices, improved cultivation using pumps and increased productivity of crops has led to better food security, changed eating habits and improved diets in villages of the EIRFP (Seth and Bilgi 2002). There has also been a noticeable improvement in the capacity of women trained by the ANTWA project. Woman farmers were now utilising improved farming practices, participating in agricultural exhibitions and meetings, transferring technical knowledge to other villages and interacting with agricultural officials (Deshingkar, 1999). Much of this was attributed to trust generated between lady extension officers and village women. This has created unprecedented links between the agricultural department and woman farmers and will no doubt be a solid foundation for the development of future programmes.

2.9 Monitoring and Evaluation

Monitoring and evaluation has been a weak area in many of the programmes and projects reviewed. Reasons for this include:

- restrictions on fuel and travel allowances for project staff
- few visits of senior officers of the DoA to actual project locations for monitoring purposes
- monitoring reports not distributed regularly
- the time gap between monitoring data collection and presentation is too long
- monthly and quarterly reports only capture physical and financial achievements

There is very little attempt to understand limitations of project and to make mid-course corrections. Thus, there is a need for analytical reporting. Capacity to prepare qualitative and analytical reports need to be emphasised. Opportunities for cross learning from the various woman farmers programmes implemented by the government and NGOs have been rare. Opportunities for this need to be consciously designed in future programmes.

2.10 Drudgery Reduction

Women in agricultural communities work for longer hours compared to men and due to their heavy work load, women often find it difficult to attend training and other extension programmes offered by projects and programmes. Releasing time from these heavy workloads is essential in order to get meaningful participation of women in SHGs or classes on agricultural technologies. There is a need to understand the daily and seasonal workloads of women farmers prior to the implementation of empowerment programmes (Khot, 1999). The EIRFP has made considerable inroads in this field of work by examining the implications of increasing the agricultural workload of women farmers through project interventions, such as, increasing the cropping area, increasing crop yields, improving irrigation facilities, soil and water conservation activities, reforestation, income generating activities etc. Interventions that reduce the work of women both at home and in the farm were developed and promoted (including paddy threshers, winnowers, sprayers, harvesting tools, parboiling units, maize shellers, dal making machines (Seth and Bilgi 2002) but much more work remains to be done in this area. Women spend a considerable amount of time fetching water and collecting fuel wood and fodder. Digging a well in the centre of the village, improving manual transport aids (handcarts), improving cooking stoves, increasing bio-mass production to meet fuel needs, plantation of fast growing fodder (especially in common lands) and developing mechanisms for its sharing all helps in saving a lot of time or releasing a lot of time that can be devoted to other income generation activities. In order to make some of these interventions, the DoA needs the co-operation of other departments and Panchayat Raj Institutions and NGOs (such as GVT) who have experience in this area. Capacity building in this area should be a priority for DoA staff training.

2.11 The Need for Different Strategies

Women's participation in agriculture varies widely from different ecological sub-zones, farming systems, castes, classes etc in India. The involvement of women in crop production varies according to the type of crop grown and the cropping systems and the socio-economic status of the family. There is also a need to make distinctions between the involvement of women as agricultural labourers and involvement of women in agricultural operations on their own farm. In relatively prosperous areas where land holdings are large and most of the agricultural operations are mechanised, women play only a marginal role. The women from poorer families work as agricultural labourers irrespective of the community to which they belong. Female labour participation rates are noticeably higher among scheduled caste and scheduled tribal communities (Prameela, 1990).

Even though landless women do not own land, their role in agriculture is important as they are the ones involved in 85% of the agricultural operations in India. Landless women also lease in land for cultivation. Keeping milch animals, small ruminants and backyard poultry is an important source of income for poor farm families and agricultural labourers. Thus, training programmes for women in agriculture should not ignore this group on the basis that they do not have land and do not belong to the category of small and marginal farmers.

The problems of tribal women are different from other rural women and they need a totally different approach. For instance, the majority of workers involved in collection of non-timber forest produce (NTFP) are women, particularly tribal women. However, approximately 70% of the NTFP collections take place in the six states of the central belt; Maharashtra, Madhya Pradesh, Chattisgarh, Bihar, Orissa and Andhra Pradesh and many tribal women face several constraints operating in the NTFP economy. This is because they spend a considerable amount of time in fetching water and therefore do not have the time to add value to minor forest produce (which would help to increase their income), the women who bring produce to the market are also exploited because they lack knowledge on proper weights and prices for the timber and there is a language barrier (traders are often from the plains with whom tribal women find difficult to communicate and bargain for prices). Programmes for tribal women therefore need a different approach to help overcome some of these constraints.

It would be a mistake to view rural women as a homogeneous social classification or to derive policies and services for "women in agriculture" that are not based on empirical research that captures this diversity (Jiggins *et al*, 1997). Thus there should not be a centrally generated blueprint for tackling issues related to farm women. It is important to recognise the various categories of women farmers that exist and their needs in the agriculture sphere and from there to develop appropriate strategies to assist them e.g. whilst in some parts of India require trained women to reach women farmers, others may require trained women as motivators only, and other areas may

need only the male agricultural officers to be trained on women's issues to disseminate technology to women.

2.12 Need for Wider Capacity Development

One of the interesting observations that emerged from the impact assessment study of the TEWA Project in Orissa was that women did not welcome an increase in crop yield in their farming system, unless there were drudgery removing and time saving devices that could help them in managing the yield. "More production means more work for them and more time spent away from their families that they cannot afford" (CABM, 2001). With this in mind, agricultural development programmes for women should focus more on providing opportunities to increase the income of women rather than focussing on increasing crop productivity, which seldom improves access to increased incomes as men often control the sale of farm products. The training and extension programmes for woman farmers implemented so far through the state DoA has given a higher importance to yield enhancing technologies in crops, at the cost of other enterprises and skills that are important for widening the livelihood choices of women.

This is not to belittle some of the efforts that have been initiated. Many of the TEWA project women's groups in Orissa have successfully saved money and are currently accessing credit from other institutional sources. Some of the women have leased land and have started to grow various crops. The CSSWA project tried to move beyond agricultural technology by focussing on thrift as an activity for women groups. Several new enterprises were also formed, but due to lack of proper follow-up and assistance on related aspects, such as, credit, marketing and entrepreneurship development, many of the enterprises that were initiated failed to take root. The inflexibility of training programmes and lack of appropriate skills of project staff on issues related to the functioning of enterprises has contributed to the unsuccessful functioning of some enterprises. Box 6 contains an example of this.

Box 6 The Mushroom Boom

Mushroom was introduced as an innovative product in women groups of the CSSWA project in the Palakkad District of Kerala. Extensive training was given on cultivation techniques and management practices. Mushroom cultivation became a priority theme in training schedules. Mushroom spores were procured from the production centres of Kerala Agricultural University and Rural Technology Centre, Palakkad and the activity was developed. However, no marketing study was done at any stage, therefore, this responsibility rested on group members i.e. to market their produce in the local markets of Palakkad. It therefore became a standard practice to show mushrooms and its processed products in the neighbourhoods and the homes of the relatives of the groups. However, in general, Keralites are not comfortable with the taste of mushrooms and prefer to eat fish, which has a similar nutrient composition and is easily available. As a result, mushroom cultivation vanished from the activities of the CSSWA project. (Source: Sreekumar, 2001)

2.13 Partnerships

Schemes on the development of alternative income generating activities for women should include a package of skills training, entrepreneurship development, credit linkages and identification of markets. For instance, the “kudumbasree” programme, provided training on all aspects of micro enterprise development (in addition to production skills) and the self help groups were facilitated to obtain the necessary resources required in the establishment of forward and backward linkages.

One of the key elements of the ANTWA project (Phase II) was the development of a partnership with the Andhra Pradesh Women’s Co-operative Finance Corporation to implement a value addition and enterprise development project component. This clearly showed that:

- there was an increasing recognition of the need to look beyond crop production,
- there was an acknowledgement of the limited skills the DoA has for implementing development programmes with a wider agricultural agenda and
- there was a need to build partnerships

Working in partnership has been weak in the agricultural sector, even when the specific programmes specify this as a requirement. For instance, the guidelines of the Training of Women in Agriculture Project in Rajasthan, specified the need to obtain assistance and the help of the District Women Development Agency (WDA), specifically to use their *Prachetak* (Lady Link Workers) for selecting women trainees and organising training sessions. However, an evaluation of the programme showed that in almost all project clusters, only agricultural supervisors were involved in the selection of beneficiaries and that no other agency had any role in the training programmes (except for two districts where representatives of the WDA were asked to participate in the training programme as guest speakers).

It is usually not possible for an organisation for financial logical reasons to have all the skills available that is required for implementing all programmes. Therefore, to meet the various needs of women farmers, developing partnerships, with other agencies are important.

2.14 Women and Marketing

Most women farmers who are engaged in small business or micro-enterprises are either subsistence entrepreneurs or pre-entrepreneurs. The enterprises developed by women are usually seasonal, require low production skills and their resultant products are poor in quality. These women entrepreneurs, being both producers and sellers of the produce are also usually isolated from markets and their limited mobility makes marketing a major constraint in the promotion of their enterprise. Furthermore, most of the small business and micro-enterprises identified and developed are done on the basis of the skills and raw material available rather than consideration of the markets, market needs and market dynamics (Jain, 2002). For example, women who have taken up gladioli

and baby corn production on a large scale in Bulandshahr district of Uttar Pradesh (promoted by the CSSWA project) are facing marketing problems due to the harassment of traders from New Delhi. Women farmers from Varanasi in Uttar Pradesh and Tehri Garhwal in Uttaranchal (which were formed under the UNDP supported women in Agriculture Programme) are also faced with problems in the marketing of honey, mushrooms, vegetables and horticulture crops. The women of Rajasthan, who have been traditionally doing a lot of food processing activities, such as, pappad and vadi making, masala grinding and pickle making, cannot increase the size of their enterprise as markets outside the district and state cannot easily be contacted.

In the development of any agricultural project or programme, an in-depth marketing study would help identify effective marketing strategies for products. Co-operative marketing of products and assigning brand names for the products would also be helpful in finding sustainable markets. While developing farm women programmes, the cost for hiring consultants to conduct market analysis and market development should be kept in mind.

2.15 Mobilisation of Groups

The importance of organising women into SHGs is an accepted method of empowerment. SHGs are an effective means through which women can build self-reliance, solidarity and confidence, as well as contribute to the overall development of their families and societies. Belonging to a group provides women with a sense of identity, status and security, and also provides them access to credit and institutional support services which they otherwise would not have had as individuals. SHGs have bargaining power and the ability to make major decisions for their own development.

Although the skills of some women staff working for farm women programmes have been enhanced through training programmes, in general, the DoA has limited skills in organising and sustaining SHGs. The staff of the DoA mainly has expertise in agricultural technology and therefore do need skills in group formation, conflict resolution, leadership development etc, which are generally known as “social science skills”. These skills could be either taught to the DoA staff or provided as consultancy support to these programmes through NGOs who have the necessary skills.

While the *Rashtriya Mahila Khosh* project and the UPSLR project have been using NGOs as facilitators to help in group formation, training, micro-credit, micro-finance, entrepreneurship development etc, in Kudumbasree programme, the officials and peoples representatives of local bodies are trained to perform these facilitating functions.

The EIRFP have produced guidelines on using a participatory group approach at village level for the formation of SHGs. The guidance offers information on rapport building, analysis of social structure, livelihoods and local resources, group formation, group planning, participatory monitoring and participatory evaluation (KRIBHCO 2000).

The IFAD supported Tamil Nadu Women's Development Project, was designed and implemented on the basis of a partnership with NGOs. The NGOs provided organisational and empowerment support for women, particularly at the grass-root level, which would have been very difficult for the Government to do. In this way, the NGOs played a central role in the implementation of the project in all five districts, specifically on identification of women beneficiaries; formation of and supervision of women's self help groups (SHGs); establishment of credit linkages for women groups members and in training animators to work with women's groups. The project provides a good example of lessons on how NGOs can assist the government agencies in implementing development programmes (Box 7).

Box 7 Lessons on NGO Partnership from a Women's Development Project in Tamil Nadu

- The catalytic or support role of the NGO has to be clearly defined and understood. The study found that over half the NGOs were making the decisions for the group, instead of holding back and letting the women in the group make their own decisions. This is sometimes hard for enthusiastic NGO field workers to do, but is important from the point of view of women's empowerment that NGOs do give space and time to women beneficiaries.
- The remuneration basis of NGOs is very important. Originally, the remuneration of the NGOs was based on the number of women applying for bank loans in the groups the NGOs had helped set up. But, as the evaluation noted, where NGOs were under funded themselves, and NGO staff therefore heavily reliant for their salaries on income from the project, this had adverse effects. Such NGOs became too anxious to set up new groups and encouraged women to apply for credit before group cohesion had been fully established. In recognition of this problem, the basis of the NGO remuneration was changed so that it included group formation and sensitisation and helping groups become sustainable. This allowed a more balanced type of support.
- NGO support is most important at the early stages of group formation, and should gradually be phased out. Unlike many other projects, the Tamil Nadu Women's Development Project placed considerable emphasis on the sustainability of groups. This meant also that NGOs had to avoid developing "NGO dependency" and gradually had to give the women the skills and courage to take over responsibilities. Planning an "exit strategy", therefore, becomes a key part of NGO support.
- NGOs sometimes also need training. Even in a country such as India, where there are so many excellent and experienced NGOs, the weaker ones may still need training in order to be effective partners in implementation.

The project experience underlines the importance of careful selection of NGO partners and, if needed, training requirements. Where large projects are involved, it is inevitable that there will be gaps in coverage that will have to be filled by less-experienced NGOs. These weaker NGOs will need extra support and more supervision. The way the partnership is set up will also affect project effectiveness and impact.

Source: IFAD (2000) Completion Evaluation of the Tamil Nadu Womens Development Project

2.16 Selection of Enterprise

Many of the women trained under different programmes have initiated new enterprises as individuals and as groups and could increase their income substantially from these enterprises. But it is the selection of the right kind of enterprises that is critical. The choice of enterprise depends primarily on the time available with women, their risk taking capacity, cost of inputs, cash flow, markets etc. The capacity of the women groups to understand the likely outcomes of different enterprises and to help them take a decision on what enterprise would be suitable for them, could be developed through appropriate training on micro-enterprise development. Care should be taken not to enforce enterprises, which the organisation consider as appropriate but which women are not comfortable to do. High labour requirements of certain micro-enterprises can exclude the poorer and most overworked women, even if the potential profits are attractive. Box 8 provides an example of this.

Poorer women, in particular, are more likely to have excessive workloads than wealthier women. If a new enterprise has high labour requirements, poor women are unlikely to become involved, even if it has an attractive profit potential. The need for flexibility in project design and implementation and building on the needs, preferences and capabilities of local people and communities including making appropriate use of the vast existing knowledge base and experiences is a key finding of the Tamil Nadu Women's Development project. The final evaluation report of the project stated "contrary to expectations at appraisal, that most of the loans taken by women would be used for crop improvement purposes, more than half went towards livestock activities (purchase of dairy cows, goats and ewes) that provided landless and small holder women a daily income". The ultimate lesson learnt is that land based activities are unsuitable to undertake when the majority of the target population have neither titles (document of possessions) nor access to land.

Another area of enterprise development for rural women is in the fisheries sector. In India, out of a population of 5.4 million active fisher-folk, 3.8 million are fishermen and 1.6 million are fisherwomen. Fishermen are engaged in several fish vocations but the major activities, in which women's contributions can be noticed throughout the country are fish processing and marketing. Out of the 1.2 million fisher-folk employed in fishing, women occupy a considerable proportion of more than 0.5 million. They play a significant role in both pre and post-harvest operations. A large number of poor women are engaged in aquaculture and sustain their families with their income. The Government of India has been implementing several programmes to promote fisheries sector. For developing inland fisheries, 422 Fish Farmers Development Agencies (FFDAs) have been initiated and 39 brackish water Aquaculture Fish Farmers Development Agencies (BFDAs) are now functioning in the coastal areas of the country (Government of India, 2002).

An analysis by NABARD on the current situation regarding the fishing industry in India, has identified factors that could facilitate women to become entrepreneurs and enhance their incomes.

Box 8 Labour requirements and selection of enterprise

District Ukhrul in the state of Manipur, northeast India, has a population primarily consisting of the Tangkhul tribe. The large majority of households depend on slash-and-burn agriculture, augmented by edible plants from the forests and a few livestock. Women perform most of the work in the family including agriculture, livestock, weaving and domestic work. In 2000, an IFAD technical assistance grant, provided the Asian Institute of Technology (AIT) to undertake a study of self-help groups in three villages of this District. The study looked at the most popular income-generating activities in which women invested their informal loans. This provided social information on the advantages and disadvantages of different activities from the women's point of view. The three most popular activities were poultry-rearing, pig-raising and weaving. All three could be carried out in or close to home and could be combined with women's domestic responsibilities.

Poultry rearing: Poultry is the most popular loan-funded activity among the very poor. It is a traditional activity and the women generally possess the management knowledge. Three main advantages of poultry rearing from the women's viewpoint, were low set-up costs, easy management and easy marketing. Poultry-raising requires little labour input: women in this area were already working 14–16 hours a day and were therefore not anxious to take on an activity that required extra work. Set-up costs were low, as poultry requires little in the way of shelter. Moreover, poultry rearing quickly began to generate a return on the investment. But there was another reason why women liked investing in poultry rearing, that was because the poultry were seen as women's property. Although men made the major financial decisions in the family, women did not need to consult them in any way about poultry rearing.

Pig-raising: Keeping pigs, as with poultry, is an important element of the rural economy in the north-eastern region. The profit potential was attractive. According to the villagers interviewed, a piglet costs approximately Rs. 800–1000, but could be sold one year later for approximately Rs.2500–3000. This was a considerable income for a poor household. There was also a good market for pigs in the region. However, the implications on labour required, by women was a disadvantage. Feed from kitchen waste or from a garden or forest had to be collected and cooked for the pigs which took time and energy. For this reason, pig-raising was not as popular among very poor women, who were already overloaded with work and simply did not have time to take on extra tasks.

Weaving. Weaving is a traditional activity for women among the Tangkhul and skills are passed on from generation to generation. Women are expected to weave cloth that is then used by the family. Therefore, the large majority of women combine weaving with their other activities, but usually not as a market-oriented activity. With the extension of the market economy, women who were skilful weavers and had market access could generate a relatively good income. However, the downside of weaving was the high cost of material inputs required and the time required. This restricted women from poorer households from exploiting weaving as an income-generating activity. The study also found that the women who took group loans for setting up weaving activities often found the funds to be insufficient for commercial viability.

The above analysis reveals that women consider the following aspects important while selecting an income generation activity.

- it has low labour requirements and can be combined with domestic tasks
- requires skills or knowledge that is already developed
- it has a low start-up cost i.e. does not require any major capital expenditure
- it produces a rapid cash turnover so that women do not have to wait months or years for it to generate cash
- it can be marketed easily i.e. it is suitable for year-round markets with easy physical access
- it allows women to take full control and its resulting income i.e. so that husbands cannot make claims on it.

Source: Nongbri, Tiplut. 2000.

The bank has extended financial support to some of the important fishing activities run by these female entrepreneurs (Samantray and Pathak 2001) including:

- Composite fish culture for fishing equipment
- Prawn culture
- Integrated fish culture along with horticulture and animal husbandry
- Backyard hatcheries
- Traditional fish farming in rural areas
- Fish-feed manufacturing as a cottage industry
- Fish harvesting/fishing
- Organic farming
- Fish marketing (wholesale/retail)
- Fish curing
- Fish processing and packaging
- Value adding to otherwise uneconomic fish species (pickles/sauce preparation, etc)
- Fish trading/vending
- Transport operations
- Net mending/repairs
- Ornamental fish farming
- Biotechnological projects like spirulina, artemia, azolla culture, etc.
- Tiny and small-scale industrial units
- Establishing self-help groups through NGOs.

In many states, fisherwomen co-operatives have been formed as part of the fisherwomen development programme. An example of a successful case on product development and market diversification is given in Box 9.

Box 9 Group Enterprise by fisherwomen

The Azhikode Fisherwomen Welfare Society was established in 1997 under the auspices of the Kerala State Co-operative Federation for Fisheries Development (MATSYAFED) of the Government of Kerala. A total number of 9 women, who have undergone training in improved methods of producing value added fish products under Integrated Fisheries Project (IFP), are engaged in value addition of fish, shrimp, clam etc. Initially they had a marketing outlet under the MATSYAFED. Supply of raw material was provided to the men folk from their own families. The menfolk collected fresh raw materials from landing centres directly and the items were processed by the fisherwomen society within four hours, giving much attention to the quality standards. The high quality of the products helped to fetch a good price and assured market. Now the society supplies the products to leading super markets and even export agents. Assured quality of products, integrity of group members, training in improved and hygienic handling methods and above all enthusiasm has helped the group to be a success.

(Source: Ashaleta et al, 2002)

2.17 Operational Constraints

Most of the problems faced in the implementation of projects and programmes by the DoA are generic in all states. These problems include:

- restriction on expenditure on fuel for office vehicles, which affect the number of visits that can be made for monitoring performance of projects or programmes.
- use of vehicles purchased specifically for women development projects and programmes are used for many other programmes of the government causing delays and cancellation of project activities.
- fixed touring allowance which is not enough to meet the travel requirements of project staff resulting in compromises in project activities. Public transport is unreliable and usually not available to villages, especially interior villages. Furthermore, women extension staff are not comfortable using them especially after dark.
- delays in the release of funds thereby affecting project activities in the first few months of the financial year. Consequently, activities are not tailored to the agricultural calendar as they should be and some activities are not undertaken because farmers are busy in their fields or because the activity is not useful at that particular time of the growing cycle.
- large jurisdictions for staff as vacancies are not filled in time. Scattered coverage of villages over a wide area causing a considerable amount of time spent on commuting to the project area.
- special staff employed for implementing women programmes drawn for implementing other programmes
- lack of time for follow-up activities due to too many training camps and targets to be met by many other programmes being implemented by the DoA.
- women programmes being treated as unimportant leading to low staff morale of those employed in their implementation.
- Low honorarium for facilitators and their contractual term of appointment leading to low staff confidence.
- Women development projects and programmes in effect seen as a separate entity from mainstream DoA operations.
- Lack of co-ordination between different agencies involved even when mechanisms for co-ordination in the form of committees have been constituted.
- Lack of flexibility for the staff implementing the project to re-appropriate funds and to make changes in planned activities to meet the objectives of the programme thus affecting the ability to quickly respond to the needs of clients.

The constraints identified above need to be addressed for the full realisation of the benefits of woman farmers programmes. Some of these constraints have been addressed in the operational

design of the Agricultural Technology Management Agency (ATMA) model of extension under implementation in 28 selected districts in the country. Box 10 provides an example of this.

Box 10 ATMA and Woman Farmers Groups - a case of ATMA, Khurda (Orissa)

ATMA Khurda has been working with several women groups. A visit to some of the groups revealed the goodwill and co-operation ATMA has generated from these groups. Some of the observations are described here:

- Some of the women groups have been constituted by other programmes, such as, the TEWA project and ATMA is building on this to provide technical support to these groups
- ATMA has organised need-based training for members of groups at IMAGE or at the block level FIAC.
- The membership of groups varies from 10-30 individuals.
- All the groups meet once a month to collect monthly contributions (varying from Rs.20/- to Rs. 60/-) and deposit them in the bank accounts of the groups.
- The money thus saved is being used for group enterprises as well as to meet the immediate credit needs of (consumption/production) the members.
- The activities for which the money has been invested include both agricultural and non-agricultural activities. The agricultural activities include, paddy processing, mushroom cultivation, vegetable cultivation, turmeric cultivation, custom hiring of farm implements and backyard poultry rearing. Non-agricultural activities include, appliqué making and jute bag making.
- Most of the groups are financially assisted by the UNDP programme (Rs.35,000/ per group).
- Women FAC members take an active interest in nurturing and supporting new women groups.
- The flexibility to quickly respond to training and information needs of farmers, the availability of a reasonably good untied operational budget and the participation of the farming community by way of FAC at the block level are the major factors behind the success of ATMA in providing technological support to women groups.
- Lady Village Agricultural Workers have good rapport with women groups and this has also helped in the functioning of women groups.
- SHGs are federated at the block/district level.

3. Development of Cafeteria for Women in Agriculture

3.1 Introduction

The purpose of the cafeteria for women in agriculture is to help state departments of agriculture and other organisations in India to develop and implement programmes and projects specifically aimed at women farmers. The cafeteria provides guiding principles and an approach to develop projects and programmes. The guidance provided is based on issues that were considered important by key persons in the Ministry of Agriculture as well as project managers and implementers of leading donor assisted projects, such as, the NATP, TWA and the EIRFP (see Annex II) as well as a synthesis of the lessons learnt from documented information, given in chapter 2. Since the cafeteria is essentially guidelines, it allows the implementing agency (who will be developing the programme or project), at the district/block level, to choose an approach that fits into their specific situation (based on local problems, socio-economic conditions of women, nature of primary occupations, availability of suitable organisations to partner with etc). The cafeteria is based on a number of assumptions. These are:

- The cafeteria is not seen as a uniform approach to dealing with the needs of women farmers across India.
- Programmes and projects are developed from a grass roots level and are based on a thorough needs assessment of the local situation.
- Each district has the flexibility to develop a programme or project that is relevant to their local situation.
- The district/block level authorities have sufficient operational flexibility in implementing the programme or project.
- There is sufficient flexibility in the design of the programme or project that allows opportunity to learn from progress and to make mid-course corrections as required.
- Programmes are developed in partnership with different agencies and organisations.

3.2 Priority Themes for the Cafeteria

Representatives from DFID, DANIDA, Netherlands supported projects, World Bank, NGOs (e.g. GVT), ATMA, MANAGE as well as key senior members of the Government of India (Ministry of Agriculture, Department of Agriculture and Co-operation) attended a one-day brainstorming session to identify themes for the women in agriculture cafeteria for the Govt of India. The day was spent by each of the donors describing their project experiences but specifically concentrating on the constraints they faced in implementing programmes. The constraints then led to a process of making suggestions as to what activities/programmes the GoI need to be developing to improve the lives of women who work in agriculture. These suggestions are considered to be themes for the cafeteria. The themes for the women in agriculture cafeteria are:

- Mobilisation of groups – community resources persons
- Groups – formation, capacity building including training and skill development,
- Linkages and support – resource/information centers, hire schemes, convergence with other projects, co-ordination of inputs, marketing, credit, diversification, private sector, commercial development
- Communication and media support to extension – pictorial material, T.V
- Technology – development, identification, evaluation, refinement for women to reduce women's workload (production and post harvest technology), adoption
- Staffing – increase number of women extension workers
- Gender training and sensitisation for policy makers, implementing agencies, extension workers
- Sustainability

The following section provides guidance notes on each of the themes for consideration during programme and project development.

3.2.1 Mobilisation of Groups

The DoA can ideally work with two kinds of groups; existing women groups or new groups (which would need to be formed specifically for the programme or project). The advantages and disadvantages of both options would need to be explored to determine which option would be best for the programme or project i.e. to examine issues, such as, the status and composition of existing groups, resources and time available to form new groups, building rapport with communities, priorities of the groups etc. Both options are not exclusive to each other, in other words, there are advantages of working with both types of group.

Over several years, a number of women's groups have been formed under various donor assisted and government implemented programmes and projects. Every district/block in the country has at least one of the following types of group:

- Groups created by the Development of Women and Children in Rural Areas Project (DWACRA)
- Groups formed under the Indira Mahila Yojana (renamed as Swayam Sidha)
- Groups formed under the Rashtriya Mahila Kosh (National Credit Fund for Women)
- Groups developed by the Entrepreneurship Development Programmes of Women Development Corporations
- NABARD supported SHGs
- Employment and Rural Development Programme Groups
- Neighbourhood Group of women e.g. kudumbasree in Kerala

- Groups formed by DoA for implementing women in agriculture programmes
- Watershed programme groups
- Groups formed by other development programmes e.g. UPSLRP and UPDASP in Uttar Pradesh
- Women diary co-operative groups
- Group created by other poverty focussed programmes, such as, the one supported by UNDP in Orissa and Andhra Pradesh
- Groups supported by NGOs

The details of these groups district/block wise could be collected and presented in a Table for clarity (see Table 1). This would help determine the programme/project strategy for working with groups.

Table 1 Information on women groups in the state

Name of the group, location, address and key contact person	Activities performed (thrift/credit, hire schemes, enterprises (joint/collective)	Support required, in relation to management, technology, credit, markets, etc	What could be provided by DoA (alone or in collaboration with others)?	Collaboration required and with whom	Remarks

When the table is complete, it should indicate the following information:

- The number of groups that require support for agricultural and allied enterprises (including non-farm occupations) or could be potentially assisted.
- Composition of the existing groups (composition of poor and disadvantaged sections of the population).
- The parts/regions of the state/district that are not active in SHG formation and possible reasons for this.
- The rationale for forming new groups and where they need to be formed i.e. blocks/villages
- Whether new groups have to be formed in particular areas.

3.2.1.1 Use of resource persons

Forming new groups is time consuming, necessitates intensive efforts and is a real challenge to do, particularly in rural areas. Given this fact, in remote and difficult areas, the DoA does have considerable difficulty in recruiting and retaining staff to help with formation of women groups. Furthermore, due to implementation of a number of other programmes, it is quite difficult for the extension staff of DoA to spend adequate time forming and nurturing groups of women farmers. Also, existing staff do not have sufficient training in social science skills to effectively form women self help groups. In order to overcome some of these constraints, the DoA could either, recruit and train women extension staff to cater to the needs of women farmers or work in partnership with other organisations. To do the latter, the DoA would need to:

- Identify resource persons from other organisations such as NGOs.
- Identify individuals who have prior experience with group formation.
- Identify potential individuals who could be trained to help with the task, such as, elected women members of panchayat, school teachers and educated unemployed women.

Experience shows that in all the farm women specific programmes funded by DANIDA and the Government of Netherlands, women extension personnel were either specially recruited or redeployed from within the DoA and trained specifically to work on woman farmers programmes. In the TEWA project, a major share of credit for its success was attributed to the lady village agricultural workers (LVAWs), who were specially recruited and trained for a period of 14 months on various skills and knowledge in agriculture and then deployed in project villages. The CSSWA project recruited three women facilitators who were specially contracted for organising and supporting woman farmers groups.

Programmes for woman farmers cannot be expected to run successfully with the existing (and mainly male dominated) extension staff of the DoA unless intensive training is provided to men extension staff on working with women groups or if vacancies for extension staff is filled by women recruits. If recruitment and training of staff is not possible, then the DoA could prioritise programmes they implement so that it is within their resources and abilities.

3.2.2 Groups

3.2.2.1 Group formation

The BAIF experiences indicate that "the success of SHGs, depends on several factors but mutual trust and cordial relation among the members is the key to success and sustainability". It is therefore necessary to understand the background and traditions of the local communities before mobilising rural women into SHGs. In semi-urban areas, women of equal economic status can

communicate and interact positively with each other putting aside their caste and religious backgrounds. However, castes do matter in remote rural areas and can affect the level of interaction between members, particularly if there is no community centre where members can meet. Therefore, if there are enough women in a hamlet, they prefer to form a group of their own caste. They also prefer to select new group members from the same locality who meet formally and informally on a daily basis and communicate cordially. Generally, there is no difficulty in identifying such cordial groups in villages. It is better to allow women to select their own group members, without any influence from the coordinating agencies” (Hegde and Ghorpade, 1998).

Experience from the Tamil Nadu Women’s Development Project indicates that “In the initial years of group formation, especially in new areas, there is an important stage of learning and adaptation that may be inhibited or even derailed by over ambitious or strictly applied physical and financial targets”. An evaluation of this project concluded that a flexible and gradual approach is required for group formation, with both targets and regulations kept to a workable minimum. Other parameters of effective group operation include; optimal group size, rotation of leadership responsibilities, economic homogeneity of group members, continuity of members in groups, and rules governing group operations. The project also illustrated that pro-poor, equitable and transparent savings and lending practices contributed to group functioning and cohesion as well as group management in collective action, such as, welfare activities, building of community infra-structure and lobbying with government for electricity and other facilities.

3.2.2.2 Capacity building

SHGs cannot be formed overnight. There is a formation stage, a strengthening stage and a self-help stage. Groups need to be helped in the process of progressing through these stages. SHGs need guidance and assistance on a number of issues. These include:

- Training in basic functions, such as, accounting, keeping record, linkages with the local bankers and monitoring of loans granted to them.
- Saving and micro-credit activities to encourage regular participation of the members at group meetings. But micro-credit activity in isolation may not be able to generate substantial employment and income for poor families.
- Selection of enterprises keeping in view the availability of time by women, their risk taking ability, cost of inputs required, cash flow, risks involved, marketing prospects etc.
- Development of linkages with various other organisations outside the village to support the micro-enterprises. Links to banks, training organisations and extension services are the basic support services required.

3.2.3 Linkages and Support

Identification of resource persons and organisations within the district/state that can support and strengthen SHGs is essential. Collecting information in a table (see Table 2 with some examples) would be useful in helping to identify the expertise that could be potentially used in strengthening SHGs.

Table 2 Linkages and support required to strengthen SHGs

Name of resource person or organisation	Potential contribution (area of expertise)	Approx cost (for honorarium, contingency travel etc)	Training requirements of partner organisations e.g. technical, managerial, organisational)	Training cost involved	Remarks (risks/ opportunities)
DoA	Technical or organisational				
Credit institutions	Access to credit schemes				
NGOs	Organising and nurturing groups				
Entrepreneurs to develop markets					
Panchayat representative					
School teachers					
Other departments/ Organisations e.g. Animal Husbandry, Horticulture KVKs Health and Social-Welfare Rural Development, Fisheries					
Other persons e.g. link workers/ convenors of SHGs, educated unemployed youths etc					

Successful development of women SHGs requires the services and interventions of a number of departments and agencies. This does not mean that many organisations become involved in providing assistance to the DoA rather it is the responsibility of the DoA to work out optimal institutional arrangements for working with SHGs at the state level and then at the district level.

The top and middle management cadre in DoA need to spend considerable time and energy in ensuring the co-operation and co-ordination of different agencies and organisations.

3.2.3.1 Co-ordination of input, marketing and credit

Successful growth of enterprises requires reducing costs, accessing new markets and expertise in financial management. Although these subjects appear to sound complex, many organisations involved in micro-enterprises development have “demystified” these concepts and have developed handbooks and training modules to help poor rural women in operationalising these concepts in their daily business routine. The basic guidelines indicate that it is best to train one member from each group in issues, such as, credit, technology, marketing etc and use these individuals as ‘Master Farmers’ for each of the micro-enterprise activities.

3.2.3.2 Commercial development and development of micro-enterprises

The most common income generation activities that have been taken up by women SHGs in India are listed below (this is based on the literature reviewed as part of this study). It is interesting to note that approximately 50% of them are non-farm. This list can be used by the DoA as a reference list to help in discussions with women farmers and other partners in identifying income generating enterprises that could be taken by SHGs in their state.

- purchase/leasing of agricultural land
- improved seeds, bullocks, implements and other inputs for crop production
- purchase of dairy cows, goats and chicks
- tailoring
- paddy processing
- rope making
- fish-net production and repair
- mat weaving
- production of processed milk products
- pottery
- vermi-composting
- nursery raising
- bee-keeping
- food processing (pickle and papad production and sale, curry and spice powder units)
- leaf cup production
- mushroom production
- cultivation of crops
- garment production
- pasture development
- soap powder

- operation of flour mill
- production of greeting cards
- consumer store and fair price shops
- selling of cloth, sarees and bangle
- embroidery unit
- stationery production and sale

3.2.3.3 Convergence with other projects

There are a number of schemes for rural women under implementation in states across India, which provides an opportunity for convergence. For instance, the Support to Training and Employment Programme (STEP) and the NORAD supported Setting up of Employment-cum-Income Generation-cum-Production Units could be used to train woman farmers groups constituted by the DoA. The National Dairy Development Board (NDDB) has already successfully utilised STEP for training woman farmers. Similarly, some of the programmes of the Women's Development Corporation could be used as entrepreneurship training and to support the marketing of produce generated by rural women groups. Programmes of the District Rural Development Agency, Livestock Development Programmes of the Animal Husbandry and Dairy Federations, programmes of Panchayat Raj Institutions, Employment Programmes, NGO programmes, etc., could all be utilised for the benefit of woman farmers programme by the DoA.

Over a number of years, Krishi Vigyan Kendras (KVKs) have been training women farmers and in the year 2001-2002, they trained approximately 1,10,762 women on different aspects of agriculture (ICAR, 2002). These trained women would achieve greater benefits if the DoA and KVKs consulted each other.

3.2.4 Communication and Media Support to Extension

Mass media and print media have been traditionally linked with extension programmes in India. The All India Radio and the Doordarshan (state run radio and television units respectively) transmit programmes on different aspects of agriculture every day. In the nineties, private TV channels like Eenadu Television (E-TV) started telecasting daily programmes on agriculture. Though none of these could be classified as women programmes, they were found useful for making farmers (including farm women) aware about new seeds, other inputs and working practices. Farm information units of the Central Ministry of Agriculture and the state Department of Agriculture have also developed several video programmes to facilitate the transfer of technology to farmers. The offices of the Department of Agriculture, up to District level in all states are equipped with audio-visual equipments, such as, television sets, video cassette players, overhead projector, slide projector etc. Although video cassettes are often used for institutional training programmes, they have been rarely used for village level training programmes. Major constraints being lack of reliable

power supply in villages and transport of television sets to the field and back due to lack of office vehicles are funds for hiring a vehicle. Cassettes on new topics are not produced regularly, and therefore these facilities are not utilised to their optimum capacity. Project districts under the ATMA programme are presently equipped with the latest communication gadgets, such as, computers, multi-media, video cameras, scanners, digital video drives etc. As a result, some of the ATMAs have produced excellent video CDs on their programme components as well as success stories for further dissemination.

There is very little information available to judge the content of these programmes on gender aspects and also it is difficult to determine the extent that media has been utilised by farm women. Print media has its limitations in India due to the low literacy level among women and rural women in particular. However there is a wide variation among states in this regard and there is a lot of potential for using print media in those states and districts where the literacy levels are higher. Newspapers, especially those in local languages, provide at least one page every week for news and articles on different aspects of agriculture. Special farm magazines also reach a large number of farm households in these areas.

Audio-visual programmes are useful only to women who understand the language being used. For this reason, centrally produced programmes at the national and state levels face problems of being understood by its target audience. Radio and TV sets are often located where men, but not women, congregate. Quite often, farm women do not have time to watch these programmes due to their hectic workload on the farm and in the home.

The widespread availability and convergence of information and communication technologies (ICTs)- computers, digital networks, telecommunication, television etc, in India in recent years have led to unprecedented capacity for dissemination of knowledge and information to the rural population. Several projects are now attempting to provide information and services to rural citizen-consumers, via human-mediated systems (Sood, 2001). The village knowledge centres initiated by the MS Swaminathan Research Foundation (MSSRF) in Pondichery aims at building a model for the use of ICTs in meeting the knowledge and information requirements of rural families by taking into account the socio-economic context and gender dimension. (see Box 11). Value addition to the raw information, use of the local language (Tamil) and multi-media (to facilitate illiterate user participation) and participation by local people from the beginning are the noteworthy features of the project. The centers are operated by local volunteers, mostly women. Creation and updating of relevant content to suit local needs is a key element of the programme.

Mahila Spruthi is another project, similar to that implemented by the MSSRF, which was initiated by Co-options Technologies Limited, a software solutions provider in Andhra Pradesh, to provide an integrated information system for women self help groups. *Mahila Spruthi* has been designed to establish Information Acquisition and Dissemination Centres (IADCs) at the *gram panchayat*

Box 11 Village Knowledge Centres in Pondicherry

The MSSRF have set up knowledge centres in ten villages near Pondicherry in Southern India and have connected them by a hybrid wired and wireless network to enable the villagers to get information they need for farming on other activities. This involved local volunteers gathering information and feeding it into the intranet-type network and providing access through nodes in different villages. Ten villages are connected in a hub and spoke model, with Villianur, a small town 13 km west of Pondicherry, serving as the hub and value addition center. Most of the operators and volunteers providing information are women. Information provided in the village knowledge centres is locale specific and related to prices of agricultural inputs (such as seeds, fertilisers, pesticides), outputs (rice, vegetables, sugarcane), market entitlement (the multitude of schemes of the Pondicherry government), health care (availability of doctors and paramedics in nearby hospitals, women's diseases), cattle diseases, transport (road conditions, cancellation of bus trips) and weather (appropriate time for sowing, areas of abundant fish catch, wave heights in the sea), etc. Most of the information is collected and fed in by volunteers from the local community itself. Much of the content has been developed in collaboration with the local people. Prior to setting up the village knowledge centres, participatory rural appraisal was carried out in the hamlets, primarily to identify the information needs of the community. PRA was also used to assess how far the community was willing to go in operationalising the local center, by way of making in-kind or cash contributions. PRA was also used in the identification of groups or individuals (who would be chosen by consensus by the community) for managing the local centre. Different villages have evolved their own ways of managing the centre. Some are located in public buildings, some in temples or in a private house. The volunteers were trained in PC operations and in using the data cum voice network. An analysis of the users register, which is maintained in the village centre, reveals that the proportion of women users varies from 34% to 50%. The proportion of users below the poverty line is on average 16%.

Source: 1. Balaji V (<http://www.idrc.ca/telecentre/evaluation/nn>)
2. Arunachalam S (<http://www.mssrf.org/informationvillage/ifla.html>)

level. IADCs are connected through dial up lines to various government, commercial and banking agencies for communication and transaction requirements of SHGs. The IADCs provide market information on the demand supply gap and information related to branding, packaging, distribution avenues and prices. (Rishikumar, 2002).

3.2.5 Agricultural technology development, refinement and adoption

Agricultural equipment and machinery that is suitable for use by women in farming operations (production, post-harvest and food processing) have been developed by ICAR institutes, SAUs and CSIR institutes (especially the Central Food Technology Research Institute). A list of these technologies is given in Annex III. These technologies are considered to be drudgery reducing and

time saving. However, the levels of adoption of many of them have been low. Possible reasons for this include:

- Modifications may be required to the tools to make them more suited to the agro-climatic conditions of different regions of India.
- Manufacturers are sceptical about the demand for improved tools and so do not want to invest in marketing them.
- Small entrepreneurs and small artisans are not aware of these new designs and how to manufacture and repair them.
- Lack of technical backup to support local commercial production of improved tools
- Lack of financial resources among farmers and woman farmers to purchase them
- Lack of training on use of improved tools

Technology development, adaptation, commercialisation, distribution and uptake by end user are undertaken by different organisations and individuals, which have no functional relationship with each other. This ultimately affects the performance of all the actors in the system and has led to a situation in which:

- The right kinds of technologies required by women are not produced.
- Good technologies do not get modified to suit the different farming situation
- Not enough manufacturers are ready to commercialise the technologies
- Users are unaware of new technologies
- New technologies are not available locally to farmers

For promoting adoption of time saving and drudgery reducing machinery, extension programmes need to develop a strategy where different agencies are able to work together as a system.

A review of the EIRFP indicated that the adoption of agricultural machinery, such as, winnowers, sprayers, threshers, storage bins, water pumps etc have increased in the project villages as the Project provided women access to new information and sources of credit. Some KVKs are offering training programmes to rural youth and women on repair and maintenance of agricultural equipment and also on value addition activities, such as, making jams, squashes, jellies, ketchup etc. The Directorate of Extension of SAUs have also organised similar training programmes. Extension organisations do need to build on these success stories to facilitate wider adoption of agricultural technologies.

3.2.5.1 Refinement of technology

Apart from the adoption of agricultural equipment or machinery, there also exists the opportunity to improve the productivity and incomes of women farmers through the development or refinement

of technologies specifically to suit their physique. Gender sensitive participatory technology development and refinement requires research scientists to understand the constraints faced by women in operating agricultural equipment and to make refinements according to feedback from women users. A step-wise approach to refinement of technologies for women is as follows:

- Create awareness of the technology through exposure visits, village meetings, field visits etc
- Introduce the technology through demonstrations and training (not just one off activities but supported by continuous follow-up visits, advice and support).
- Collect feedback on the suitability of the technology on demonstrations days and during follow-up visits.
- Make refinements to the technology based on feedback from farmers, scientists, local blacksmiths and artisans, local manufacturers etc.
- Re-introduce the refined technology and re-test.
- If refined technology is suitable, identify backward-forward linkages to help support dissemination of the technology (see section 3.2.5.2).

3.2.5.2 Backward-forward linkages

Once a technology has been refined and tested in the field by women farmers and is considered to be successful, it is necessary to identify mechanisms for supporting the dissemination of that technology. Initially this requires market research. After that, a farmer support network needs to be established. This involves examining issues including:

- Identifying manufacturing support for the technology at local level and beyond.
- Identifying possibilities for access to the technology e.g. custom hire at local level and beyond, distribution centers, service centers.
- Identifying provisions for on-field advice and support.
- Identifying provisions for maintenance and repair of the technology at local level and beyond.
- Access to credit.
- Developing linkages with line departments, policy makers, NGOs etc.

3.2.5.3 Value-addition

To date, the DoA has concentrated its extension efforts on promoting crop production activities. In many of the projects reviewed, there is an indication that woman farmers require activities that are not too time consuming, not drudgerous and will allow them to generate income. With this in mind, the DoA need to concentrate future efforts into developing and promoting value-addition activities by building on efforts made so far on crop production activities. In order to do this, the DoA needs to explore a number of issues including:

- Identifying quantity and quality of local produce that could be processed.
- Identifying the demand for processed products through market survey.
- Determining the cost of production through cost-benefit analysis.
- Identifying equipment required for processing produce; through purchase or hire and identifying any maintenance and repair facilities that may be needed.
- Establishing marketing methods for the processed product e.g. stalls, SHGs, village *haats*, selling in cities (middle-man costs) etc.
- Identifying banking and credit facilities that may be required.
- Identifying business training needs of SHGs

3.2.6 Gender training and sensitisation

There is a need to gender sensitise development organisations and the DoA to generate an attitudinal change to dealing with problems and issues related to women in agricultural communities. In particular, extension staff (this includes both women and men) need a better understanding of:

- the status of women in India
- the concept of gender relations
- tenets of a gender approach to women's development
- concept of empowerment
- gender planning frameworks to operationalise gender concepts.

Gender sensitisation training should not be restricted to grass root level functionaries. It is often found that the way an organisation responds to gender concerns depends on how sensitive the top management is to these concerns. Top management have the authority to set goals, strategies and evaluation systems and to create an enabling environment for altering gender relations at work. Thus training materials and methods for gender analysis in agriculture ought to be targeted initially at top management with a view to influencing changes within the rest of the organisation. If top management want to introduce gender training within their organisation, a number of factors need to be considered. These include:

- The number of staff in training centres who requires training as 'trainers' in the area of "gender sensitisation".
- Identifying organisations and individuals who can provide training of trainers programmes.
- Costs and time involved in training.
- The total staff in the organisation who need to be exposed to gender sensitisation.
- Consultants/experts that can be invited to do staff training.
- Developing post training follow-up strategies

Ideally gender sensitisation training and planning has to be done at the state level, though the training of trainers programme could be organised at the regional level.

3.2.7 Sustainability

SHGs need continuous support to meet and deal with new challenges. There is also a need for SHGs to network among themselves to share their experiences and to develop a common strategy to face future challenges. To ensure empowerment of women through the SHG approach, projects and programmes should be designed with adequate financial and human resources to provide SHGs the required institutional support (be it from NGOs, project management, government technical agencies, financial institutions, etc) and capacity building skills (training in technical skills, basic principles of management, legal and social issues) that is required for their sustainability. This is explained further in Box 12.

Box 12 Continuing support for SHGs: three reasons

New Opportunities - It is easy to promote various SHG activities, using micro-credit in some communities because many basic needs of the community are unattended. However, the opportunity to sell goods and services in local markets will saturate soon because of the limited number of consumers and their purchasing power. Hence, there is an immediate need to identify new opportunities to sell goods and services outside the local markets.

Capacity Building - Members of SHGs need regular training on managerial and technical aspects of the business. Linkages with technical institutions to improve the quality of the products and banking institutions for easy flow of funds are essential for further development of micro-enterprises managed by SHGs.

Monitoring - As markets are unstable and open to competition, regular monitoring and evaluation of micro-enterprises is essential. Entrepreneurs should adopt simple systems to control finance, inventory and costs. Since many micro-enterprises are operating within a small profit margin, inadequate cost control may upset the business development. Keeping abreast of activities of large-scale manufactures, who pose a threat to SHGs is important. SHGs need to be flexible enough to make changes to their business due to competition and unfair trade practices.

(Source : Hegde and Ghorpade, 1998)

4. How to Develop a Project Proposal for Funding

4.1 Developing project proposals

Information presented in the previous chapters has identified a number of issues that need to be borne in mind in the development of new programmes and projects. The main issues are:

- New projects that are proposed should build on groups, networks, organisational capacity and resources already in place and functioning from existing project initiatives.
- New projects should take on and build on lessons from existing projects.
- Apart from extending agricultural technologies on production and post harvest to women farmers, new programmes should concentrate their efforts in providing crucial back-up services and support (backward and forward linkages) to help women groups to successfully adopt new techniques/crops/enterprises to increase their incomes and employment opportunities.
- New programmes and projects should be planned with adequate resources for mobilising women, forming groups, improving capacity and capability in technical, organisational and commercial (business/micro-enterprises) sectors and support systems (credit, raw materials and markets).
- New programmes and projects should be prepared jointly in consultation with other organisations (public, private, voluntary) that can potentially complement and supplement the efforts of the DoA.

4.2 Obtaining and analysing information

The success of implementing any project rests essentially on the quality of information that is used in planning the project. District wise, baseline information that is needed for any programme or project preparation consists of:

- Types of agro-ecosystem present
- Nature of the cropping system (area and production)
- Coverage of animal husbandry
- Fisheries and other allied agricultural enterprises present
- Information on skills available
- Infrastructural network
- Extension and training programmes under implementation in the district by various line departments etc

Much of this information is already available from respective line departments or the district statistical office. As part of project preparation, this type of information should be compiled and

used as a source of reference for the project to build on. The Strategic Research and Extension Plans prepared by the Agricultural Technology Management Agency (ATMA) of the NATP Pilot districts (28 districts in the 7 states) provides much of the generic information for the 7 states. Ideally it would be good for all districts in India to have this type of document.

4.2.1 The nature of support and assistance required by rural women

Once baseline information about the district has been compiled, it is then necessary to obtain specific information on the needs and requirements of women farmers. This necessitates collection of information through discussions with groups of women and interaction with officials of line departments, panchayats, NGOs etc. The following sections provide guidelines on the type of information that is required.

4.2.1.1 Livelihood activities of women

It is important to collect information on the types of livelihood activities undertaken by women in agricultural communities at the block level in each district. It is likely that there are variations between blocks. This information could then be documented in a Table e.g. Table 3. and used as a source of reference. For example, District Shimla in Himachal Pradesh is divided into nine blocks. The district has 2597 villages. On an average, each block has about 280 villages. Agro-climatically the district is divided into 5 agro-climatic situations, mainly based on elevation. The livelihood activities in each of these zones vary widely.

Table 3 Livelihood Activities of Women at Block Level

Name of the block and number of villages in each	Occupations/Livelihood activities (e.g. farming, agricultural labour, animal husbandry, poultry, fisheries, other agro-enterprises, such as, agro-processing	Approximate number of women/groups involved in these activities in these locations

4.2.1.2 Livelihood constraints and type of support required by women

It is necessary to document the constraints faced by women in undertaking the livelihood activities identified in section 4.2.1.1 and to determine the type of support that would be required to help overcome these constraints. This can be documented in a Table, such as, Table 4 and see example below.

Table 4 Constraints of Livelihood Activities and Possible Solutions

Vocation/ Livelihood activity	Constraints associated with the livelihood activity	Possible solutions to overcome the constraints

For example, for each livelihood activity, there could be several solutions to solve one constraint. Therefore, selecting the best solutions should be based on an analysis of the potential success of each of these solutions. For instance, if women farmers who are growing vegetables remain poor, reasons for this could be:

- Low yields attributed to use of traditional low yielding variety; lack of awareness of improved varieties, unavailability of improved seeds and other inputs, such as, fertilisers at nearby markets or increasing incidence of pest attack.
- Low price realisation which could be due to distant markets, exploitation by middle men (dependency for other services and thereby pledging the produce at rates decided by the middle men or trader), lack of awareness about prices or mis-match between quality of produce demanded by market consumers and what is grown/produced.

Possible solutions in this case could be:

- Improving awareness on better methods of cultivating vegetables through
 - meeting of women vegetable farmers to educate them on new varieties and inputs, agronomic and plant protection measures, etc.
 - organising demonstration plots in farmers fields
 - conducting study tours to areas where scientific vegetable cultivation is practiced
 - referring the problems, for which solutions are not available, to researchers who may be able to develop new research to find a solution

- Making inputs accessible through
 - The purchase of all inputs by the group from distant markets
 - obtaining a license and opening an input shop in the village which is run by the group
 - initiating custom hiring of sprayers
- Realising better prices by
 - making direct links with main markets
 - pooling together group resources i.e. the produce and transport to main markets to negotiate better prices
 - getting price information (daily prices, price trends) from different markets and planning production and harvesting accordingly
 - processing the produce and realising better prices (pickles, curry powder etc)

Project planners need to be aware that there could be many potential solutions to improve each livelihood activity. Therefore, new programmes and projects need to be designed with some degree of flexibility to accommodate this. For instance, projects should not assume that the majority of problems of women farmers is lack of awareness and therefore the best solution is to train them on new technologies.

4.2.1.3 Status of existing women groups at block level

A number of women groups have been formed over the years under several programmes. (e.g. DoA, DWACRA, IMY, RMK, WDC, credit SHGs etc). There are several opportunities in working with existing groups. Discussing with these groups could also provide more insights on the type of support required by these groups. The details of all such existing groups can be collected in the following format (Table 5).

Table 5 Details of Existing Women Groups

Name of the group, location, address and key contact person	Activities performed (thrift, credit, hire schemes, farming, other enterprises)	Support Requirements Managerial, technological, credit and market related, linkages	Which organisation/s to meet these requirements (this may often require collaboration with one or more organisations)

4.2.1.4 Potential for introducing new crops or enterprises

Selecting new crops or enterprises for women should be based on a number of criteria, such as,

- Whether it complements the existing production system and the potential for success. For example, mushrooms is an enterprise that could be introduced in areas where there is adequate availability of paddy straw, provided marketing opportunities are in place. This can be done through using a business plan.
- Availability of time by women to take on the activity bearing in mind that women have generally heavy workload at home and on-farm.
- Cash requirements and cash flow.
- Level of success expected in marketing the activity to generate income.

Prior to introducing a new activity, it is essential to learn lessons from previous activities. Discussions with the existing groups would be useful for this. Information on the potential for introducing new crops or enterprises can be documented in the following table (Table 6).

Table 6 Potential for Introducing New Crops or Enterprises to Women Groups

New crop/enterprise	Potential for success i.e. business plan of inputs required technology transfer, information on markets, likely benefits etc)	Support requirements and how they are going to be met.	Organisation/s to partner with (may require collaboration with more than one organisation)
e.g. Introducing vegetable farming on leased land by women	Local markets can absorb production. And cost of production is low as the women members share the labour requirements for cultivation.	Seeds of improved varieties. Technological support, Fertiliser, Pesticides, Information on prices and opportunities for better price realisation.	SAUs, Private companies, DoA, other Research organisations, Input dealers.

4.2.2 Selection of interventions and partners for collaboration

Many problems associated with successful agriculture are not technological and so technological solutions do not suffice. Often the adoption of technology increases, when other parameters, such as, access to inputs, credit and markets are ensured. Increasing crop production does not necessarily result in higher incomes for women. Higher incomes are usually realised through group enterprises run and managed by women where they have independent access to their incomes. Thus, selection of programme or project interventions should take account of these issues. Selection of programme or project interventions ought not to be influenced by the limited range of skills and expertise the DoA possess. Working in partnership with other organisations and individuals is the best way of dealing with this.

Interventions can be described as:

- Organisational
- Technological
- Non-technological (back ward and forward linkages)

4.2.2.1 Organisational Interventions

Organisational interventions are especially important when new groups have to be formed. It essentially requires the intense involvement of trained facilitators to organise and mobilise groups. Existing groups also need support as they mature and diversify and take on new functions. Major organisational interventions include:

- Mobilising groups of women
- Supporting groups with initial formation
- Initiating a common activity e.g. thrift as an entry point
- Sustaining groups e.g. capacity building
- Selecting and initiating an economic or income generating activity

Facilitators could be from NGOs or GOs, or people from within the community, such as, community resource persons, community link workers or community organisers who have been trained by other programmes/projects or educated unemployed women or representatives of women groups from neighbouring villages who are willing to do this type of work. New programmes and projects ought to have a specific budget to support this type of activity.

4.2.2.2 Technological Interventions (crop production and value addition)

For every crop grown or enterprise to be introduced, information is required on the types of technologies (traditional or improved) that are currently being used and who uses them (women or men). Once this information is known, it is then necessary to identify suitable alternatives i.e.

improved designs etc and mechanisms of how this can be done. If improved technologies have already been introduced and are not being used, it is necessary to establish reasons for the non-adoption and to identify ways to overcome these constraints. A table has been developed to help capture this information (Table 7).

Table 7 Information on Existing Working Practices and Introduction of New Practices

Crop/enterprise	Current practices and reasons for their adoption	New/improved practices. If already introduced, reasons for non-adoption	Ways to introduce new technological interventions (if required) e.g. research on a particular aspect, training, demonstration, ensuring access to inputs or output markets

Various organisations and persons in each district/state can be contacted to help in collating information. These include, State Agricultural Universities, ICAR institutes, State Departments of Agriculture, Animal Husbandry, Fisheries, Forests, Soil Conservation units of farmers training centres, Krishi Vigyan Kendras, NGOs with technical and micro enterprise development skills, womens development corporations (Small Industries), industrial training centres, agro-input agencies, unemployed agricultural graduates, agri-consultancy organisations, and retired technical people from line departments and universities

4.2.2.3 Non-technological (backward and forward linkages)

Backward linkages refers to ensuring access and availability to a range of inputs and services required for production, such as, seeds, land for cultivation, grassland for grazing animals, community ponds for growing fish, fertiliser, irrigation water, pesticides, agricultural equipment and machinery, un-exploitative credit, entrepreneurship development services, fish spawns, vaccination etc.

Forward linkages refers to ensuring access to post harvest services, such as, markets, business skills training, better price realisation opportunities etc. In general, access and availability to many of these inputs and services are poor in rural areas. Working in groups rather than as individuals enables women to get better access to these services, but help is required in this process. Ways forward on this include:

- Linking women groups with existing programmes of the Panchayat, Department of Rural Development/ Social Welfare/Agriculture/ Horticulture/Soil Conservation/Women and Child Development, Tribal Development, etc. Women can access inputs (such as; pump set, seeds or knapsack sprayers) distributed at subsidised prices as part of many of the on-going programmes by these agencies as part of several programmes.
- Developing women groups into thrift groups to meet their immediate production and consumption needs and linking them to formal credit institutions.
- Developing water user committees to ensure equitable distribution of irrigation water.
- Mobilise groups to buy inputs and sell outputs collectively to save on transportation costs and reduce possibility of exploitation by small traders.
- Train one member of the group or a person from the village in artificial insemination and vaccination services.
- Influence revenue departments of panchayats to give preference to women groups while leasing common lands and community ponds.
- Using group savings to buy small machinery and develop custom hiring of the machinery on nominal rent.
- Training a group member or a person from the community on repair and maintenance of sprayers and pump sets.
- Training village artisans in making and repairing farm implements.
- Developing supply chain for inputs and outputs using members of the community.
- Getting one member of the group trained in specific business skills, such as, accounting, market survey.

There are many ways in which support can be provided to women groups. Most of the expertise required to meet these support requirements are available with different agencies and individuals such as research agencies, commodity boards, various government departments, panchayats, existing women groups, women development corporations, NGOs, market development services, credit institutions, etc. The success of new programmes and projects essentially rests on the strength of the partnerships that would be nurtured and strengthened during the project development phase. Managing partnerships at the district and block level should be considered as a key strategy of new programmes and projects. A table (Table 8) has been developed which can help in identifying the types of partnerships that need to be developed by the new programme or project.

4.2.3 Project development workshops

During the project development phase, it is necessary for the project partners within a district to come together in one forum (workshop/s) to share information, data and potential contributions and expertise each can provide for implementing the new programme or project.

Table 8 Outline of Partnerships Required for the New Programme or Project

Resource person/s or organisation required	Potential contribution of resource person or organisation (area of expertise)	Other specific inputs that could be provided by the resource person or organisation e.g. Training courses, facilities (labs, fields, equipment) halls, vehicles, personnel, funds, audio-visual equipment and materials, inputs for demonstrations and production marketing facilities, post- harvest facilities (grading, drying or packing) etc
DoA	Technical and organising SHGs	
Credit institutions	Credit schemes and guidelines	
NGOs	Organising and nurturing groups	
Entrepreneurship Development/ Market Development services		
Panchayat representatives, especially women representatives		
School teachers		
Other departments/Organisations e.g. Animal Husbandry, Horticulture, KVKs, Women development corporation, Health, Social welfare, Tribal affairs, Forestry, Soil conservation, Irrigation,		
Input agencies		
Farmers co-operatives/SHGs		
Women federations.		
Other persons e.g. link workers, convenors of other SHGs, educated unemployed youth		

Since the DoA will be taking the lead, it is their responsibility to plan and organise workshops for this purpose. The costs for holding the workshops, collecting baseline information, hiring of consultants (if necessary) and preparing the project proposal will be met by the Ministry of Agriculture.

4.2.4 Institutional Arrangements

Much of the success of new programmes and projects rests on how the various partners work together throughout the project period and beyond (from inception stage to implementation and evaluation). It is expected that each partner will bring complementary expertise and skills and these need to be properly articulated. The project team, therefore, has to be aware of possible conflicts of interest and should strive to reduce the incidence of this or have the ability to resolve issues as they arise. Meeting of the partners at regular intervals would help to do this. Clarity regarding individual and collective responsibilities and sharing of costs, human resources and infrastructure is important and needs to be clarified at the beginning of the programme or project.

Working in partnerships is not easy and many organisations do not have the skills to work as partners. Partnership skills are part of a range of capabilities that help organisations to become innovative and these are learnt through interacting with partners and networks. There is a need for new programmes and projects to be innovative in developing appropriate institutional arrangements. There is no blueprint that can be prescribed for generating optimal institutional arrangements but the project proposal does need to indicate in detail, the types of institutional arrangements that the project would be hoping to initiate. Project development workshops are a good starting point to help generate thinking on appropriate arrangements.

4.2.5 Learning

Opportunities for reflecting on the process of programme/project formulation and outcomes achieved should be an integral part of the programme/project and to be done at regular intervals. Taking stock of progress and constraints regularly will help with planning of future activities. The project teams at district and block levels should have sufficient flexibility to make mid year corrections and make appropriate changes in the budget. This requires creating a responsive and flexible management system that has the responsibility and authority to take decisions and make corrective actions at all levels (state, district, block and village).

4.2.6 Transparency and accountability

Transparency and accountability refers to the programme or project being open to evaluation and learning by other interested parties. Programme or project information on project partners, participants (women and women groups) fund flow, activity, achievements, evaluation reports etc should be open for others to learn from and will help to plan better programmes. The best way to present information is on web site. For instance, information on strategies on progress of this project on web sites of the department of agriculture of the state governments.

Financial and operational accountability is also important and the funding for this initiative would depend on the mechanisms being put in place to ensure accountability.

4.2.7 Costs

The Ministry of Agriculture would support all the operational costs of the new programme or project, except for the salary of staff, civil construction and purchase of new vehicles. However, the costs of facilitators hired for developing the programme or project, training costs (of DoA staff and women groups), costs involved in securing expertise from other organisations, would be provided.

Development of the project proposal document at the district level, which may take up to 6 months may involve some costs. This includes costs related to:

- getting the baseline information organised
- contacting organisations and individuals that could partner with the programme or project
- field visits to collect information
- workshops of all the different partners for project development
- hiring a facilitator or consultant to develop this document at the district level.

The DAC would also contribute funds to support the development of project proposals.

4.3 Review of Project Documents

The programme or project proposal, as developed through the approach presented in this document (and is supported with the required baseline information and analysis of the situation), will be reviewed by the Extension Division of the Ministry. Comments and suggestions will be communicated back within 6 weeks of submission of the proposal.

4.4 Preparation of the Work Plan

The work plan needs to be prepared keeping in view the Government of India guidelines in this regard. It should ideally indicate the following details against each intervention/activity:

- the units to be implemented in each year
- the per unit cost and the total cost envisaged and
- the lead organisation and the partners

The work plan should also describe how each of these interventions will be implemented, monitored and evaluated. Annual work plans for the second year onwards could be redrafted at the end of the previous year based on the lessons learnt in the previous years. Flexibility would be provided to move funds from one head to another if this could be adequately supported with appropriate reasons for doing so and keeping in view the final objectives set by the project and the total budget allocation.

4.5 Checklist for the Development of Project Proposals

A checklist for developing project proposals is given in Box 13 to help with ensuring that all parts of the programme or project development has been covered.

Box 13 Checklist for Development of Programmes and Projects

- Have you included information of existing women groups in the district/block and their activities and composition?
- Have you identified the project villages and discussed the rationale for selection ?
- Have you identified women support needs?
- Have you identified organisations and individuals that can support women groups?
- Have you identified locations where new groups have to be formed?
- Have you evaluated the support (resources, human power, infrastructure) that will be provided by the DoA?
- Have you identified organisations and individuals that could support the formation and strengthening of SHGs?
- Have you estimated the detailed costs required by the DoA and for hiring service/expertise of other organisations for project needs and wider capacity development of staff and farm women?
- Have you considered the human resources required for implementing the programme (top up funds for DoA staff and costs for additional human resources recruited / hired for the programme?)
- Have you specified costs that can be shared from state budgets?

References

- AFC (1999) Impact evaluation of women's training programme in Rajasthan under the World Bank's Assistance (Agriculture Development Project-ADP) Revised Final Report, New Delhi, Agricultural Finance Corporation Ltd.
- Arunachalam, S. (2002) Reaching the unreached: How can we use ICTs to empower the rural poor in the developing world through enhanced access to relevant information?, Paper presented at the IFLA General Conference, Glasgow, 18-24 August.
- Ashaletha, S. Ramachandran, C. Immanuel, S. Diwan, A.D. & Sathiadas, R. (2002) Changing roles of fisherwomen of India-Issues and Perspectives. IN: Singh Kohli, M.P. & Ratna Tiwari eds. Women in fisheries. Mumbai, Indian Society of Fisheries Professionals.
- Balaji, V. Knowledge System for Sustainable Food Security (<http://www.idrc.ca/telecentre/evaluation/nn>)
- Balakrishnan, R. (2001) Gender constraints for rural poverty alleviation, Paper prepared for the Expert Group Meeting on "Empowerment of women throughout the life cycle as a transformative strategy for poverty eradication, 26-29 November, New Delhi
- Balasubramaniam, M. (2002) Transfer of Technology Model in TANWA, IN: Proceedings of the National Workshop on Women in Agriculture: Farmer to Farmer Extension, Department of Agriculture and Co-operation, Ministry of Agriculture, Government of India.
- Buvinic & Gupta, G.R. (1997) Female headed households and female maintained families: are they worth targeting to reduce poverty in developing countries? Economic Development and Cultural Change, 45 (2).
- CABM (2001) An Impact Assessment Study of the TEWA project in Orissa, (Supported by DANIDA, Bhubaneswar), Centre for Agri-Business Management, Bhubaneswar
- CABM (2002) Case Studies on Best Practices in TEWA Project in Orissa, Study by DANIDA, Bhubaneswar, Centre for Agri-Business Management, Bhubaneswar
- DAC (2000) Policy Framework for Agricultural Extension, Department of Agriculture and Co-operation, Ministry of Agriculture, New Delhi, Government of India.
- DANIDA (1988) TANWA Review Mission Report (prepared by a joint GoI/GTN/DANIDA mission visiting Tamil Nadu), Danish International Development Agency.

- DANIDA (1995) Review of agricultural skills training and technical messages in the DANIDA funded woman farmers projects in India, Draft Report, Danish International Development Agency.
- DANIDA (1997) Training and Extension for Women in Agriculture (Phase II), Draft Review Report, Danish International Development Agency.
- Deshingkar, P. 1999, Report of the Review Workshop for the Staff of Training Women in Agriculture (ANTWA), 19-20 February 1999, submitted to the Royal Netherlands Embassy, New Delhi.
- DWCD (2001) Annual Report 2000-2001, New Delhi, Department of Women and Child Development.
- GoI (2002) India-2002, New Delhi, Publications Division, Ministry of Information and Broadcasting, Government of India.
- GoI 2001. Livestock Revolution in the new millenium, New Delhi Press Information Bureau, Government of India.
- Grover, I. (1997) Central Sector Scheme on Women in Agriculture: District Bulandshahar (Uttar Pradesh) A Report of Impact Assessment Study, Hisar, Haryana Agricultural University.
- Hegde, N.G. and Ghorpade, A.S, 1998, Empowerment of Rural Women through Self Help Groups- Experience of BAIF, Integrated Rural Development for Sustainable Livelihood, Pune, BAIF Development Research Foundation.
<http://www.ifad.org/gender/learning/sector/finance/6.htm>
- ICAR (2002) Annual Report 2001-2002, New Delhi, Indian Council of Agricultural Research, New Delhi
- IFAD (2000) Complete Evaluation of The Tamil Nadu Women's Development Project, International Fund for Agricultural Development, Report 340-IN, Rome http://www.ifad.org/evaluation/public_html/eksyst/doc/agreement/pi/tamil.htm
- IFAD (2000) India-Lessons on NGO Partnerships from a Women's Development Project in Tamil Nadu, (http://www.ifad.org/gender/learning/project/part/in_tamil.htm)
- IFAD (2001) India-Popular Women's Micro-Enterprises in Manipur, <http://www.ifad.org/gender/learning/sector/finance/7.htm>

- Jain, R. (2002) Group Marketing and the role of Women Producers IN: Proceedings of the National Workshop on Women in Agriculture: Farmer to Farmer Extension, Department of Agriculture and Co-operation, Ministry of Agriculture, Government of India.
- Jiggins, J., Samanta, R.K. & Janice E. O. (1997) Improving Women Farmer Access to Extension Services. IN: Swanson, B.E., Robert P.B. & Andrew J.S. eds. Improving Agricultural Extension- A Reference Manual, Rome, Food and Agricultural Organisation,
- Khot, S. (1999) Rural Women in Double Jeopardy- Women and Work Situation in Rural Areas (unpublished), (http://www.baif.com/additional_wom7.htm)
- KRIBHCO (2000) A guide on project's participatory approach , KRIBHCO Indo-British Rainfed Farming Project (East)
- Kumtakar, P. (1999a) Scope for Backyard poultry (BYP) development under the special training programme of the Madhya Pradesh Women in Agriculture (MAPWA) Project, IN: Proceedings of the Workshop on Poultry as a tool in poverty eradication and promotion of gender equality, Danish Agricultural and Rural Development Advisors Forum (<http://www.husdyr.kvl.dk/htm/php/tune.htm>)
- Kumtakar, V.A. (1999b) Backyard poultry system in the tribal areas of Shahpura Block in Jabalpur District, Madhya Pradesh, India, IN: Proceedings of the Workshop on Poultry as a Tool in poverty eradication and promotion of gender equality, Danish Agricultural and Rural Development Advisors Forum (<http://www.husdyr.kvl.dk/htm/php/tune.htm>)
- Murthy, R.K. (2001) ed. Building womens capacities-interventions in gender transformative training, New Delhi, Sage Publications.
- Nongbri, Tiplut. 2000. Empowering Women through Self-help Groups: A Case Study of Three Naga Villages, Manipur. Rome. International Fund for Agricultural Development.
- Prameela, V. (1990) A study on knowledge and participation of rural women in agricultural operations with respect to paddy crop in Kurnool district of Andhra Pradesh, M.Sc Ag. Thesis (unpublished) submitted to the University of Agricultural Sciences, Bangalore.
- Ramachandran (2002) IN: Proceedings of the National Workshop on Women in Agriculture: Farmer to Farmer Extension, Department of Agriculture and Co-operation, Ministry of Agriculture, Government of India.

- Ramkumar, S. & Rao, S.V.N. (2001) Cattle rearing as a livelihood activity of the landless in Pondicherry. IN: Ramkumar, S. Garforth C. Rao, S.V.N. & Waldie K. eds. Landless Livestock Farming: Problems and Prospects. Workshop Proceedings, Proceedings of the Workshop, Rajiv Gandhi College of Veterinary and Animal Sciences, Pondicherry.
- Rangnekar, S. (1998) The role of women in small-holder rainfed and mixed farming in India, Proceedings of the Workshop "Women in Agriculture and Modern Communication technology- Proceedings of a Workshop" (<http://www.husdyr.kv1.dk/htm/php/tune98/3-sangeetarangnekar.html>)
- Rishi Kumar, V (2002) Cooptions tech designing ASPs for rural tracks. The Hindu Business Line, 17th October.
- Samantray, K. & Pathak, S.C. (2001) An overview of women in the indian fisheries sector and suggestions for improvement of their socio-economic status. IN: Proceedings of the Global Symposium on Women in Fisheries, Sixth Asian Fisheries Forum, 29 November, Kaohsiung, Taiwan, ICLARM, Malaysia.
- Seth, A. & Bilgi, M. (2002) Report of the Ergonomics Evaluation Visit to the DFID-Gramin Vikas Trust East India Rainfed Farming Project, Silsoe Research Institute, Internal report IDG/02/09
- Singh, G. Singh, G. & Kotwaliwale, N. (1998) Mechanisation and agro-processing technologies for women in agriculture, Paper presented at the AIT-GASAT Asia Conference, 4-7 August, Bangkok, Thailand.
- Singh, K. (1999) Rural Development: Principles, Policies and Management, New Delhi, Sage Publications.
- Sood, A.D. (2001) How to wire rural India: Problems and Possibilities of Digital Development, Economic and Political Weekly, 27 October.
- Sreekumar, B. 2001. Women in Agriculture: An evaluation of the central sector scheme in Palakkad District, Discussion Paper No.30, Kerala Research Programme on Local Level Development, Thiruvananthapuram, Centre for Development Studies.
- UNDP (1995) Human Development Report 1995, United Nations Development Programme, New York.

Annex I - Programmes for Rural Women - A brief Overview

1. Programmes with Specific Focus on Farm Women

The first major project to address the training and extension needs of woman farmers in India was *The Women and Youth Training and Extension Project* (WYTEP) implemented by the Department of Agriculture, Government of Karnataka, with funding from the Danish International Development Assistance (DANIDA) in 1982. Since then, DANIDA has funded three more projects in another three states, Tamil Nadu, (*Tamil Nadu Women in Agriculture Project*, TANWA), Orissa (*Training and Extension for Women in Agriculture Project*, TEWA) and Madhya Pradesh (*Madhya Pradesh Women in Agriculture Project*, MAPWA):

A synopsis of all the projects is given in Table A1.

1.1 Women Youth Training and Extension Project (WYTEP), Karnataka

WYTEP was implemented by the Department of Agriculture, Government of Karnataka, with funding from the Danish International Development Assistance (Danida) in 1983. The project is now in its third phase of implementation with a development objective of securing the utilization of women's potential in agricultural production on small and marginal holdings for the betterment of quality of life for all the members of the family.

Phase I and II

The project focused on activities specific to woman farmers including:

- selection of crop and variety
- seed selection and treatment
- sowing and transplanting
- application of fertilizer both during sowing and as top dressing
- weed control, integrated pest management and disease control
- harvesting and post-harvest activities including processing, storage, etc,

The main components in the first two phases were:

- Training women farmers in technologies relevant to their role in agriculture – for this, training centres were established and equipped to provide residential training. There are now 16 training centres in the state. The project has also collaborated with other allied government line departments in providing training in sericulture, animal husbandry and horticulture activities, to widen the scope of livelihood options and opportunities available to women farmers.

- Providing extension services to women farmers through activities such as pre-seasonal camps, demonstrations done at the village level and providing regular support to them.
- Organizing women farmers into groups to enable them to learn from each other, take up collective action in procuring inputs for agriculture and allied activities. Groups were strengthened through group leadership which was developed through link worker training. Eligible groups were also provided seed money to promote savings and credit activities.

The main components of Phase III are:

- **Mainstreaming Gender in Agriculture Extension.** The general extension system (GES) and its field extension team (FET) take on the responsibility for woman farmers extension services. Prior to this, the extension services for woman farmers was provided largely by women officers of the DoA. It is hoped that, women farmers are able to reach and use the services that the extension service provides. Further more, the Agriculture Department is taking up extensive staff development activities to make the system gender responsive and to keep the needs of women farmers at the forefront of planning and implementing agricultural programmes.
- **Developing and disseminating relevant technologies specifically for women.** In order to pay attention to the technological problems faced by women in small and marginal holdings, funds will be provided at both the District and State levels (to be managed by the District level Technical Advisory Committees and the State level Technical Advisory body) to develop and disseminate technologies specifically for women.
- **Providing *gram panchayat* funding for women farmers.** The main objective here is to provide opportunities and funds to *gram panchayats* so that they develop an interest in the extension activities of women farmers. This is envisaged as an effort in 'engendering the GP budget' in a critical sector like agriculture at the most basic unit of decentralized democracy. This will be piloted in a few GPs in the first year before expansion to more GPs.

1.2 Tamil Nadu Women in Agriculture (TANWA), Tamil Nadu

The Project has been operational since October 1986. The project was initially implemented in six districts of Tamil Nadu and then expanded into ten districts. Phase II of this Project is was initiated in 1993 covering all the districts (except Chennai) and would end in March 2003.

The main objectives of the project were:

- to increase agricultural productivity and to improve the economic and food security of small and marginal women farmers.
- enable women farmers to choose and adopt relevant agricultural technologies and practices.

- to disseminate agricultural knowledge and skills from women farmers to fellow women farmers.
- to improve women's access to and improve their ability to use existing agricultural services

Village based training programmes were also planned and conducted on the following aspects:

- Increasing fertiliser use efficiency
- Organic manure conservation (FYM, compost enriched FYM)
- Use of bio-fertiliser
- Tree cropping
- Field identification of pest/diseases
- Seed treatment
- Rat control
- Grain storage
- Crop wise fertiliser application and plant protection measures
- Communication skills

After the training, follow-up visits were made (ten visits spread over two years) by women agricultural officers to provide guidance and support to the trained woman farmers on how to adopt the skills learnt during the village level training.

Specialised training programmes were also organised for 1-2 days in other topics related to agriculture, for example, animal husbandry, agro-forestry, cash crops, sericulture, and pisciculture.

Trained women farmers were also encouraged to establish women's groups in their villages to share their knowledge and experiences with others.

1.3 Training and Extension for Women in Agriculture (TEWA), Orissa

The TEWA project (funded by DANIDA) was implemented in Orissa in 1987 by the Department of Agriculture (Government of Orissa). The first phase of the project covered four districts and was completed in 1995. The second phase covering an additional four districts commenced in 1995 and is expected to continue till March 2003.

The target group under the TEWA project were the farm families with small and marginal land holdings who were actively involved in agriculture activities. Lady village agricultural workers (LVAWs) after having worked with women farmers for two years, enter into the general extension system to provide extension and capacity building support to the target group.

Through training, extension and field visits to women farmers, the TEWA project has concentrated on:

- Creating awareness of increasing agricultural production
- Improving accessibility of local agricultural/allied extension staff to woman farmers and vice versa.
- Improving the adaptability of messages on seed testing, seed treatment, planting of paddy seedlings, maintenance of plant population measures, raising backyard kitchen gardens.
- Enhancing the adaptability of new messages on the use of bacteria culture in pulses and oilseeds, rodent control for storage of grains, soil health management practices, rainfed farming technologies, water management, integrated nutrient management, integrated pest management and post harvest technology.
- Preparation and use of bio-fertilisers
- Crop diversification experiments such as sunflower, off season vegetables, flower and fruit cultivation, mushroom cultivation, dairying, poultry, fishery and sericulture.

1.4 Madhya Pradesh Women in Agriculture (MAPWA), Madhya Pradesh

MAPWA is a skill oriented agriculture training and extension project for woman farmers which was launched in 9 districts of Madhya Pradesh in 1993. The second phase of the project was initiated in 2002 covering all the remaining districts. The main foci of MAPWA were:

- Village based training for women farmers by a team of 2 agricultural development officers (for farm women training) during the lean season followed by 3 follow-up visits per year over a duration of 2 years. These visits were organised after 20-25 day intervals subsequent to the completion of village based training.
- Specialised training on income generation activities in agriculture and allied agriculture, for example, poultry rearing, mushroom production and horticulture for the women farmers who successfully completed village based training.

In Gujarat and Andhra Pradesh similar programmes have been under implementation with funding assistance from the Government of Netherlands. These are: *Training of Women in Agriculture Project (TWA) in Gujarat* and the *Training of Women in Agriculture Project (ANTWA) in Andhra Pradesh*. The respective Departments of Agriculture are responsible for their implementation.

1.5 Training of Women in Agriculture (TWA), Gujarat

The TWA project was a bilateral funded project by the Dutch Government and implemented by the Department of Agriculture through farmer training centres (FTCs) in selected districts. Phase

I of the project was launched in 1989 in six districts of Gujarat. This was followed by phase II in 1997 which covered an additional six districts and is expected to end in 2003.

Five day training programmes were organised by the FTCs each year for about 25 women farmers selected from a cluster of 2-3 villages. Village based training was also organised at the village level for those women farmers who live far away from the FTCs. Specialised training of 7-10 days duration was organised each year for those who were interested in agro-based enterprises to generate additional income. The specialised training was given in dairying, vegetable cultivation, animal husbandry and horticulture.

The trained women farmers along with untrained women farmers from the villages were formed into charcha mandals. The FTC organised three days training courses each year for about 25 leaders of charcha mandals. Pre-seasonal follow-up training camps were also organised by the FTCs at the village level during both kharif and rabi season.

1.6 Training of Women in Agriculture Project (ANTWA) in Andhra Pradesh

The ANTWA project was initiated in 1994 to acquaint women farmers who had small and marginal land holdings with improved technological skills in agriculture through a training cum extension program. The project covered six districts in Phase I and was completed in 2001. Phase II was initiated in 2001 and covered an additional six districts in partnership with Andhra Pradesh Womens' Cooperative Finance Corporation (APWCFC).

The main objectives of the project were:

- To train women farmers with small and marginal landholdings with the latest agricultural technologies and practices which were relevant to their farming systems.
- To improve the ability of the trained women farmers to utilise the existing agriculture extension services
- To develop and increase knowledge of women farmers through agricultural training and providing agricultural extension service support.

These objectives were to be met through the two major components of the program; training and extension. Training was done at the Farmers Training Centres (FTCs) and extension support is provided by Agriculture Officers specially posted in the sub-division for this project.

Village based training based on locally relevant, low or no cost technologies, was the first major activity. FTC staff followed up the training by visits to the villages and organizing pre-seasonal training to discuss specific requirements of the cropping season.

For those who wanted to gain more in-depth information on a particular subject, specialised training was provided. A study tour within the state was also arranged for trained woman farmers to provide them with exposure to improved farming techniques.

1.7 Central Sector Scheme of Women in Agriculture (CSSWA)

The central sector scheme on *Women in Agriculture* was launched on a pilot basis under the Government of India's Eighth Plan. This was done in one district each in 7 states (Punjab, Haryana, Uttar Pradesh, Himachal Pradesh, Maharashtra, Kerala and Rajasthan). The project was extended during the Ninth Plan to cover one district in each of 8 North-Eastern Hill States (Manipur, Meghalaya, Mizoram, Arunachal Pradesh, Nagaland, Tripura, Assam and Sikkim).

1.8 UNDP-Government of India sub programme on food security

Under the United Nations Development Programme - Government of India sub programme on food security, four programmes specifically focussing on women in agriculture, have been implemented since 1999. Table A2 provides a summary of the major features of these programmes.

Other programmes for woman farmers include the "*Women's Training Programme*" under World Bank assisted Agricultural Development Project (ADP). The programme was launched in 1992 to cover 14 districts of the state of Rajasthan. More recently, the state of Uttaranchal has initiated a project on *Women in Agriculture* in 68 blocks of the state covering 340 women groups and the activities include training, study tours, exhibition of products, demonstrations and seminars.

Table A1 Programmes implemented by the state departments of agriculture to provide training and extension to women working in agriculture

Project	Coverage	Main activities	Implementing Agency	Budget (Rs.)
Danish Assisted Women and Youth Training and Extension Project (WYTEP) Karnataka	Phase I (1982-89) 10 Districts Phase II (1989-2000) extended to all districts except one Phase III (June 2000-present)	Train women farmers and youths who have small and marginal land holdings Provide institutional (residential) training courses at FTCs. Pre-season village based training Link workers training Specialised training in agro-based disciplines Demonstrations Promote savings and credit One assistant woman agricultural officer located at each taluka as part of the extension system and acting as the nodal officer of the programme.	DoA	Phase I 47.08 million Phase II 284.0 million Phase III 459.0 million
Danish Assisted Tamil Nadu Women in Agriculture (TANWA)	Phase I (1986) 6 districts Phase II (1993 to March 2003) extended to all districts except one	Train small and marginal women farmers. Women agricultural officers provide village based skills training with follow-up visits Specialised training in agriculture and allied enterprises Organisation of woman farmers groups Conferences for women farmers	DoA	Phase I 43.74 million Phase II 339.2 million
Danish Assisted Training and Extension for Women in Agriculture (TEWA)	Phase I (1998-1995) 4 districts Phase II (1995-2003) extended to 4 more districts	Training and visits approach to contacting women farmers. Group meetings with women farmers. Provide trainers training	DoA	Phase I 33.59 million Phase II 118.46 million

Danish Assisted Madhya Pradesh Women in Agriculture (MAPWA)	Phase I (1993-2002) 9 Districts Phase II (to cover 6 more districts)	Provide village based training Specialised training Follow-up/support visits Demonstrations Woman farmers conferences	DoA	Phase I 62.4 million Phase II 87.4 million
Dutch Assisted Training of Women in Agriculture (TWA) Gujarat	Phase I (1989) 6 Districts Phase II (1997 to 2003) 12 districts (extended to 6 more districts)	Provide training to women farmers with small and marginal land holdings Training at FTCs Village based training Specialised institutional training for those interested in enterprise development Support/follow-up training camps (pre-seasonal) Convenor training Study tours Mahila Krishi Melas Charcha mandals Group discussion forums	DoA	Phase I 50.00 Million Phase II 121.30 Million
Dutch Assisted Andhra Pradesh training of Women in Agriculture (ANTWA)	Phase I (1994-2001) 6 Dts Phase II (2001-2007) 12 districts (extended to 6 more districts)	Training to small and marginal women farmers in technologies Village based training Specialised institutional training for those interested to take up enterprises Follow-up training (pre-seasonal) Study tour and result demonstrations Charcha mandals	Phase I DoA & Phase II DoA & AP Womens Development Corporation	Phase I 57.10 Million Phase II 440.35 Million
Central Sector Scheme of Women in Agriculture	VIII Plan 7 Districts (1 in each state) IX Plan 15 districts (7 earlier districts and 1 district each in 8 NEH states)	Formation of woman farmers groups (450 FWGs as SHGs) 30 in a Dt. Training of Women in technologies every year Link workers (Convenors) and Facilitators c. Result demonstrations d. mahila goshtis e. study tours	DoA	VIII Plan 16.5 million IX Plan 49.6 million

Table A2 UNDP- Government of India Food Security Sub-Programme

Project	Coverage	Main activities	Implementing Agency	Budget (Rs.)
Strengthening NRM on sustainable livelihoods for women in Tribal Orissa	7 tribal districts of Orissa	Supporting and enabling tribal and landless women's groups and those with marginal landholdings. Micro-capital assistance to women's groups Provide implementation and infra-structural support to women farmers. Women's skill enhancement.	Institute for Management of Agricultural Extension (IMAGE) Bhubaneshwar	85.5 million
Additional support to cyclone affected districts in Orissa	4 selected cyclone affected districts	Formation of women farmer groups. Micro-capital assistance to women self help groups. Implementation and infra-structural support to Self help groups.	IMAGE Bhubaneshwar	14.95 million
Empowerment of women farmers on food security in Uttar Pradesh	6 districts of Uttar Pradesh	Initiate and strengthen a network of resource support groups to work in partnership with the Agricultural Extension system. Build woman farmers groups and provide micro-capital assistance. Improve access of women groups to technology and other services. Provide farm equipment. Provide long term instruments to groups for land up-gradation. Direct training and extension to farmer groups. Build capacity of SIMA to act as a state level resource centre on Sustainable Agriculture and Women in Agriculture.	State Institute for Management of Agriculture (SIMA), Rehmankheda	70.4 million

Sustainable dryland agriculture in Andhra Pradesh	5 Districts	<p>Technical and infrastructural support to groups of landless women and agricultural labourers.</p> <p>Technical (training, extension, input support by DoA. Improved information services at mandal level. Exposure visits.</p> <p>Demonstrations on leased land of groups such as Mahila ghosties, kisan melas.</p> <p>Micro-capital assistance.</p> <p>Provision of farm equipment to groups.</p> <p>Long term investment in land up gradation.</p> <p>Alternative distribution systems for community grain storage bins, seed banks and other infrastructure requirements.</p> <p>Capacity and knowledge building in dry-land agriculture e.g. for INM, IPM</p>	<p>State Agriculture Management Extension and Training Institute (SAMETI) Hyderabad Partners DoA, AP Mahila Samatha Society, UNDP South Asia Poverty Alleviation Programme & Centre for Environmental Concerns (CEC)</p>	134.2 million
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2. Programmes with Women in Agricultural Communities as an Important Focus

Programmes and projects that have a broader development agenda but contain a significant component on women in agriculture have been under implementation in India. For example, the DFID funded Eastern India Rainfed Farming Project, the IFAD funded Tamil Nadu Women Development Project, the Uttar Pradesh Sodic Land Reclamation Project, the “Kudumbashree” programme supported by the State Poverty Eradication Mission, Kerala) and the NDDDB supported Women Co-operative Dairy Programme. A summary of these projects and programmes is presented in Box A1.

3. Other Rural Women’s Development and Empowerment Programmes

A number of programmes have been implemented by other government departments, such as, the Department of Women and Child Development, which complement and supplement the programmes offered by the state departments of agriculture. The major programmes are:

3.1 Indira Mahila Yojana (IMY)

The IMY project was launched in 1995 and has been replaced by the Swayamsidha scheme in 2001. The scheme was implemented in 238 blocks in the country with the aim of creating self-help groups (SHGs) for the empowerment of women. The main strategy of the scheme was to create an organisational base for women so that they could come together and discuss their needs and requirements from the existing departmental programmes of the State and Central Governments. By 1999, 40,000 SHGs had been formed under the scheme.

The programme also envisaged the development of Indira Mahila Kendras (IMKs) at the Anganwadi level and integrating or associating with other groups formed under other programmes, such as, health and adult literacy to provide the grassroots level organisation for women. It has been proved by several experiments in different parts of the country that women SHGs become a very strong medium for enabling access to information, knowledge and resources.

3.2 Swayamsidha (IWEP)

The Swayamsidha, is an integrated scheme for women’s empowerment (IWEP) which was launched in 2001 and replaced the IMY scheme. The IWEP programme was based on the SHG philosophy but was also aimed at empowerment of women through generating awareness, economic empowerment and convergence of various schemes.

The vision of the IWEP was to empower women so that they would

- demand their rights from their family, community and government
- have increased access to and control over, material, social and political resources

Box A1 Summary of programmes with significant components on women in agricultural communities

DFID assisted Eastern India Rainfed Farming Project (EIRFP)

Implementing agency: Gramin Vikas Trust (GVT), an NGO established by the Krishi Bharati Cooperative
Originally conceived in 1994 as a renewable natural resources project, the EIRFP commenced building on the earlier Hindustan Fertiliser Company Rainfed Farming Project (1989-95). The projects purpose was to initiate a process of widespread and sustainable renewable natural resources development using flexible, cost-effective and participatory approaches to improving livelihoods of poor women and men in rainfed upland areas of nine districts across three states (Jharkand, Orissa and West Bengal). The overall focus of the project shifted from farming systems to facilitation, capacity building and working with governments, panchyats and NGOs. It has three main components: a) Integrated development of farming systems in 250 core villages, involving identifying and testing technologies, design, construction and management of productive assets and undertaking of other activities in groups b) spreading easily transferable technologies to surrounding villages using different extension methods c) creating awareness, changing attitudes and developing skills in state government agencies to enable them to work together with NGOs in a participatory way.

IFAD assisted Tamil Nadu Women Development Project

Implementation agency: Tamil Nadu Corporation of Women Development, Government of Tamil Nadu with partners, such as, the Indian Bank and NGOs

Originally programmed as an agriculture and land-based project in 1989. In the year of launch, it evolved into a movement for economic empowerment of women, through formation and careful nurturing of self help groups (SHGs) with the help of NGOs. Credit worth over Rs.800 million was disbursed to about 1,20,960 women in 5207 SHGs in a span of about nine years. The project officially came to a close on December 1998. However, post project activities involving release of capital development fund (CDF) continues to provide loans to unassisted groups (with subsidy) and provides training. More than half of the loans disbursed under this project were spent on livestock activities, for example, the purchase of dairy cows, goats and ewes that provided landless and small holder women a daily income. Other income generating activities included bee keeping; cultivation of jasmine, mangoes, betel, grapes and coconut seedlings; rope making, fishnet production and repair, mat weaving, tailoring and pottery.

U.P. Sodic Land Reclamation Project

Implementation agency: Uttar Pradesh Bhumi Sudhar Nigam (U P Land Development Co-operation) with partners including NGOs

This project, initiated in 1993, had the primary objective of sustainable reclamation of sodic lands and achieving improved agricultural productivity in reclaimed lands. At the same time, it strengthened local institutions and fostered effective management of reclamation activities and other development programmes with a strong beneficiary participation. At the local level, beneficiaries organised and assisted by NGOs implemented the project. The project has also fostered the formation of women's self-help groups to improve the socio-economic well being of village families. Developed initially around the concept of group savings, the groups have evolved into important centres of village economic activity. The groups undertook a wide range of micro-enterprises, using bank credit, for dairy farming, sewing, raising tree nurseries and trading.

Kudumbashree Programme

Implementation agency: State Poverty Eradication Mission, Kerala with partners including peoples representatives and officials of the local self government organisations

Kudumbashree is a mission formed for the total eradication of absolute poverty through concerted community action under the leadership of local self government, by facilitating the organisation of poor women to combine self-help with demand led convergence of available services and resources. Through Kudumbashree, the convergence of ideas, resources, material and dovetailing of all anti-poverty programmes of various departments of the State as well as Central Government was envisaged. To facilitate the women who are below the poverty line (BPL) to save and to provide them cost effective and easy credit, Kudumbashree promoted thrift mobilisation by setting thrift and credit societies at Neighbourhood Group (NHG) level. To promote income generation activities, suitable skill upgrading training was given to women. Kudumbashree viewed micro-enterprise development as an opportunity for providing gainful employment, improving income and living standards to the people who live below poverty line. The programme also provided the necessary resources, support, facilities and backward and forward linkages. Some of the groups also engaged in agricultural related enterprises, such as, vegetable farming, agricultural nurseries, coconut oil extraction units, cultivation of medicinal plants, curry powder units, production and marketing of various dairy products.

Women's Dairy Cooperative Leadership Programme

Implementation agency: National Dairy Development Board (NDDB)

In 1995, the NDDB, initiated the Women's Dairy Co-operative Leadership Programme (WDCLP) on a pilot basis in four districts in Western India. The success of this programme led to the replication of other unions throughout the country. Other interventions included organising all Women's Dairy Co-operative Societies (WDCS) and Women Thrift Groups (WTG). In June 2001, there were 10,492 Women's Dairy Co-operatives. These activities were organised to raise women's awareness both of their rights and responsibilities as co-operative members, to encourage involvement in social and economic activities, leadership development, and increased participation of women in the membership and governance and empowerment of women.

- have enhanced awareness and improved skills
- be able to raise issues of common concern through mobilization and networking

The IWEP created approximately 53000 SHGs, approximately 26500 Village Societies and 650 Block Societies which has benefited about 930 000 women so far.

3.3 Rural Women's Development and Empowerment (Swa-Shakti) Project

The Rural Women's Development and Empowerment Project, also known as the Swa-Shakti Project, was sanctioned in 1998 as a centrally sponsored project for a period of 5 years. The overall objective of the project was to strengthen the processes involved in the creation of an environment to empower women. The specific objectives were to:

- establish 12000 self-reliant women's Self-Help-Groups (SHGs) (each having 15-20 members) to improve the quality of women lives via enabling greater access to, and control over resources
- sensitise and strengthen support agencies institutional capacities to pro-actively address women's needs
- develop linkages between SHGs and lending institutions to ensure women's continued access to credit facilities for income generation activities
- enhance women's access to resources to reduce drudgery and enable a better quality of life
- increase control over income and spending, through involvement in income generating activities

3.4 Distance Education Programme

SHGs have emerged as one of the major strategies to empower women. However, the experience of various schemes has shown that the sustainability of the majority of the SHGs was a problem and one of the major reasons was a lack of proper training. Incomplete or ineffective training in the formation of SHGs meant that the full potential of women's groups could not be realised. The vast geographical canvas also impeded timely transmission of messages without distortion. The project called "Distance Education for Women's Development & Empowerment" aimed to address some of these problems. In order to enhance the capacity of field level functionaries and other development related practitioners, the Department of Women and Child Development initiated a collaborative project with Indira Gandhi National Open University (IGNOU) and the Indian Space Research Organisation (ISRO) to develop a certificate course, using distance education, on Women's Group Mobilisation and Empowerment.

3.5 Support to training and employment programme for women (STEP)

The STEP programme was launched in 1987 to provide skills and new knowledge to poor and assetless women working in the traditional sectors, such as agriculture, animal husbandry, dairying, fisheries, handlooms, handicrafts, khadi and village industries, sericulture, social forestry and wasteland development to enhance and broaden their employment opportunities including self-employment and development of entrepreneurial skills. Women beneficiaries were organised into groups or co-operatives. A package of services, such as, extension, inputs, market linkages, etc. was provided as well as linkages with credit for transfer of assets. The project showed that women in the dairying sector have been receiving the most support, followed by handlooms sector, handicrafts, sericulture and poultry.

3.6 Establishment of employment-cum-income generation-cum-production units

The employment-cum-income generation-cum-production units programme was launched in 1982 with funding from NORAD (Norwegian Agency for Development Cooperation). Its aim was to improve the lives of poor women through providing financial assistance to women's development corporations, public sector corporations, autonomous bodies and voluntary organisations so that they could train rural women, mostly in trades that were non-traditional to them, and to ensure their employment in these areas. The trades included electronics, watch assembling, computer programming, garment making, secretarial practices, community health work, embroidery and weaving. Since the start of the project, 1477 training projects benefiting 2.28 lakh women have been approved.

3.7 Rashtriya Mahila Kosh

The Rashtriya Mahila Kosh (RMK) is a registered society sponsored by the Department of Women and Child Development, Ministry of Human Resources Development, Government of India. It was established in 1993. The main objective of RMK is to facilitate credit support or micro-finance to poor women, as an instrument of socio-economic change and development. RMK mainly channels its support through non-government organisations, women development corporations, cooperative societies and Indira Mahila Block Samities (under the Indira Mahila Yojana) and suitable state government agencies. RMK encourages the formation and promotion of women's SHGs by providing interest-free loans, particularly in relatively un-served areas. Rs.4000 is made available for the formation of one SHG, with up to Rs.1 lakh being made available to NGOs for the formation and stabilisation of 25 SHGs over a period of one year. During 2000-2001, the RMK has sanctioned Rs.50.40 lakh to 67 organisations under the scheme.

3.8 Others

NABARD has constituted a "Credit and Financial Service Fund" to support credit innovations to improve the outreach of credit to the rural poor. To date, over 3,70,490 rural poor have been linked to commercial banks, regional rural banks and co-operative banks in 22 states and 2 union territories across India (Ramachandran, 2002).

A number of Non Governmental Organisations (NGOs) in India have implemented programmes for empowerment of women, with a special focus on income generation through organising women SHGs (thrift and credit), linking members to institutional credit and training programmes, such as, in crop production, value addition and marketing. NGOs such as BAIF, MYRADA and SEWA have several years of experience in implementing such programmes and are also training staff of other organisations in skills related to implementing development programmes for women.

While most of the capacity building programmes implemented by the government and NGOs could be classified as gender neutral or gender ameliorative, some NGOs have taken up more substantial programmes that could be called as gender transformative training of poor women. Examples of this include, training programmes of NGOs such as Action India, Jagori and Nirantar in New Delhi, Deccan Development Society and ASMITA in Andhra Pradesh, RUSEC in Tamil Nadu, Prayas, Astah, SARTHI and PEDO in Rajasthan and Gujarat and SPARC in Maharashtra. More detailed information and case studies on gender transformative training can be found in *Building Women's Capacities-Interventions in gender Transformation*, edited by Ranajani K.Murthy, Sage Publications, New Delhi (2001).

To date, there are a total of 6,85,155 women's representatives in *Gram Panchayats*, 37,071 representatives in *Panchayat Samitis* and 3,861 representatives in *Zila Parishads*. Overall, in 2000 there were 7,26,877 women representatives in *Panchayat Raj* Institutions (PRI). These women representatives could play a very important role in promoting rural women programmes and in widening the reach of woman farmers programmes to more and more women. Capacity building of women PRI members to enhance their role in women programmes ought to be a priority.

Annex II - Brain Storming Session on Women in Agriculture

Brainstorming Session To Identify Themes For Women In Agriculture Programmes For The Govt Of India

Delhi April 18th 2002

Representatives from DFID, DANIDA, DUTCH, World Bank as well as key senior members of the Government of India, Ministry of Agriculture, Department of Agriculture and Co-operation attended the one day session. The day was spent by each of the donors describing their project experiences but specifically concentrating on the constraints they faced in implementing programmes. The constraints then led to a process of making suggestions as to what activities/programmes the GoI need to be developing to improve the lives of women who work in agriculture. These suggestions are considered to be themes for the cafeteria. The themes for the women in agriculture cafeteria are:

- Mobilisation of groups – community resources persons.
- Groups – capacity building, training and skill development, commercial development.
- Linkages and support – resource/information centers, hire schemes, convergence with other projects, co-ordination of inputs, marketing, credit, diversification, private sector.
- Communication and media support to extension – pictorial material, T.V.
- Technology – development, identification, evaluation, adaptation for women specific technology to reduce women's workload (production and post harvest technology).
- Staffing – increase number of women extension workers.
- Training and sensitisation for policy makers, implementing agencies, extension workers (women and men).
- Sustainability.

The next stages of programme development will be for Catalyst Management and NCAP to visit project and liaise with them regarding existing literature, guidelines and case studies which will needs to be collated and screened accordingly to fit into the cafeteria. The time scale for the first draft of the cafeteria of programme is July/August 2002.

**Mainstreaming Women in Agriculture Under the Xth Plan:
Finding Ways Forward**

- 0900** **Part I**
- 0915** Welcome and Introduction of Participants by Tahseen Jafry
- 0930** Govt of India Perspective by V V Sadamate and Sneh Wadhwa
- 0945** Framework for Discussion by M S Ashok
- 1000-1030** **Part II Donor Project Experiences and Identification of Themes**
- Experiences from Netherlands funded programme in Andhra Pradesh by Jhansi Rani
- Experiences from Government of Gujarat by Geeta Ben
- Experiences from DFID funded projects in Eastern and Western India by R Maiti
- Experiences from DANIDA projects in Karnataka and Tamil Nadu by Poornima Vyasulu
- Experiences from MANAGE and NATP by G R Desai, Uma Rani and Sanat Mishra
- a.** **Lunch**
- 1400-1530** **Part III Addressing Prioritised Themes**
- 1530-1600** **Part IV Next Steps**

List of Participants

Ashok Seth	-	Agricultural Consultant
Dr Desai	-	National co-ordinator NATP
Dr V V Sadamate	-	Additional Commissioner Agriculture GoI
Geeta Ben	-	Govt of Gujarat and Netherlands project
Jhansi Rani	-	Gender consultant, Netherlands project
M A Ashok	-	Catalyst Cirrus Management Services
Poornima Vyasulu	-	Gender consultant, DANIDA project
R K Maiti	-	GVT national co-ordinator
Rasheed Sulaiman	-	National Center for Agricultural Research and Policy Research
Sanat Mishra	-	NATP Orissa State Consultant
Sneh Wadhwa	-	Women's programme co-ordinator, GoI
Tahseen Jafry	-	Silsoe Research Institute
Uma Rani	-	NATP AP state consultant

Annex III - List of improved Agricultural equipment developed for Women in India

Operation Field preparation In hilly areas	Traditional Technology Spade	Improved Technology Simple hand tools/power packs for seed bed preparation
Sowing/planting	Hand dropping, pushing seedling in mud	Improved multi-row drills for seedling/ fertiliser application Rotary dibblers, jab planter Manual seed drill/seed cum fertiliser drill Animal and power operated seed cum fertiliser drill 6 row rice transplanter
Fertiliser application	Manual broadcasting	Fertiliser broadcaster
Weeding/hoeing/ thinning	Khurpi, kudali, spade	Manual weeder, wheel hoe, garden rake
Irrigation	Flooding	Sprinkler and drip irrigation system
Spraying/dusting	Hand sprayer/duster without safety devices	Hand operated/foot operated sprayer with safety devices
Harvesting	Sickle	Serrated sickle, self propelled reaper of 1 m size
Threshing	Manual beating Bullock treading	Mechanical power thresher Pedal operated thresher Strippers
Preparation of soil and filling of polybags	Hand	Power operated hammer hills Hand scoop for filling poly bags
Watering	Bucket and mugs	Watering can, Wheel barrow for bringing water
Pruning/budding/ grafting	Local knives, shears	Improved horticultural tools
Pit digging	Khurpi, spade	Augers and post hold diggers
Seed treatment	Hand mixing of seed with chemicals	Manually operated seed treatment drums
Cleaning/grading	Manual using cleaning basket/wire screens	Hand/pedal operated cleaners for grains/seeds Manual power operated cleaners, Winnowers Power operated graders

Drying	Sun drying Drying in cribs	Solar dryers Oil fired batch dryers Power operated dryers Agricultural waste fired dryers
Storage	Local storage structure made of clay, straw, bamboo, etc	Metallic storage structures
Milling	Hand mortar and pestle Foot operated Dhenki Hand operated stone grinders	Pedal operated grain mill Power operated grain mill, dal mill Wet grinder
Parboiling	Using cemented tank, metallic kettles and traditional methods of sun drying and milling	Parboiling equipment
Puffing and flaking	Using earthen pot, karhi, stirrer, broom, basket, oven, dhenki for milling	Rice puffing machine Flaking machine
Shelling, de-husking, decortication	Manual Knife.spike	Manual and power operated de-hullers Decorticators Hand shellers
Oil expression	Ghani	Portable power ghani Table oil expellers Screw expellers
Peeling, pulping, slicing, polishing	Knives, spikes etc	Manual and power operated peeler and slicer
Grinding of spices	Hand operated pounder	Mills/pulverisers (power operated)
Cream separation from milk, khoa making	Hand operated churns, manual methods	Power operated churns, khoa machines
Pappad making	Rolling pins	Hand/pedal and power operated presses
Leaf cup plate making	Manual	Power operated machine

Source: Gajendra Singh, Gyanendra Singh and Nachiket Kotwaliwale (1998) Mechanisation and Agro-Processing technologies for Women in Agriculture, Paper presented at the AIT-GASAT Asia Conference (August 4-7, 1998).

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NCAP Working Papers

1. Ramesh Chand (2001) Trade Liberalisation, Grain Trade Pattern and Food Security in Asia.
2. Sushil Pandey, B. C. Barah and L. Velasco (2002) Patterns of Rice Productivity Growth in Eastern India: Implications for Research and Policy.
3. Anjani Kumar, P. K. Joshi and Badruddin (2002) Export Performance of Indian Fisheries Sector: Strength and Challenges Ahead.

NCAP has been established by the Indian Council of Agricultural Research (ICAR) with a view to upgrading agricultural economics research through integration of economic input in planning, designing, and evaluation of agricultural research programmes and strengthening the competence in agricultural policy analysis within the Council. The Centre is assigned a leadership role in this area not only for various ICAR Institutes but also for the State Agricultural Universities. With a view to making agricultural research a more effective instrument for agricultural and rural change and strengthening the policy making and planning machinery, the Centre undertakes and sponsors research in agricultural economics relating to the problems of regional and national importance.