Annual Report 2010-11

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AME FOUNDATION

BELIEVES IN

"HELPING PEOPLE TO HELP THEMSELVES"

AMEF is a resource organization. It seeks to empower dry land farmers in degraded ecological situations on the Deccan Plateau, in improving their own livelihoods, along with a sensitivity to gender and equity concerns. Pursuing this goal, it works with farming communities, like-minded NGOs and concerned government agencies in creating and testing technological options, for wider application. In the process, it strives to forge institutional synergy among the interacting bio mass actors, playing a catalytic and facilitative role.

AMEF is motivated by a deep-going concern. The initial transformation in Indian agriculture became possible through the Green Revolution technology, which benefited the better-endowed regions and resource-rich farmers, using expensive purchased farm inputs. But, it bypassed the vast dry farming tracts. Trapped in these areas are a large number of small and marginal farmers struggling to make a living, with their depleted environmental assets, eroded soils and rapidly sinking ground water resources. Therefore, a second transformation has become necessary. Working with these families, searching for alternative farming options is a matter of great socio-economic and strategic concern, today.

Does AMEF create something out of nothing? Hardly the case. Adopting the PTD and FFS approaches, AMEF teams up with responsive farmers groups, interested NGOs and development agencies to locally explore new ways of managing the available natural resources more efficiently. In the process, new perceptions are generated, new insights are gained and new approaches are devised, combining the traditional knowledge with scientific findings. Thus, farmers are enabled to progress one step beyond the present.

CONTENTS

1. AME FOUNDATION – GENESIS and FOCUS

Agriculture sector, the primary source of livelihoods for nearly 67% of the population in India is displaying a sluggish growth. Small holders constitute the farming majority (around 70%). More than 60% of them are rain fed farmers. It is reckoned that in future, bulk of the food needs of the nation has to come from rain fed areas, as the irrigated areas have almost neared their peak, while the scope for further increase of irrigation is negligible.

Today, we are left with depleted farmlands, degraded farm environment and demotivated farm population who have nowhere else to go. Farmlands, under cultivation for generations, are getting depleted of their finer soil fractions, fertility and water holding capacity. Further, the degradation of the farm environment is aggravating the situation. Farming in regions like Deccan Plateau of Southern India with low and uncertain rainfall conditions is increasingly becoming unviable with inappropriate land-use practices and depleted vegetation. Challenges to feed and to fulfill the needs of a growing population in a sustainable way require a better and more comprehensive insight into ecologically sound crop production processes, especially in fragile environments of resource-poor areas of the Deccan Plateau.

While the development programmes focus on a small section of elite, frontline farmers who are able to cope with the changes around them, the majority of small holders who are risk shy have nowhere else to go. AMEF focuses on building the capacities of these farming majority to deal with their own situations better.

AME Foundation (AMEF), over the years, with its deep-rooted interest in sustainable agriculture (SA), has been seeking ways to fulfill its mission of empowering the dry land farmers in degraded ecological situations on the Deccan Plateau, in improving their own livelihoods, along with gender and social equity concerns. Born as a training agency in 1982, in a temperate climate in The Netherlands, AME has moved into a tropical region in 1986. Going beyond the training of agricultural environmentalists, AMEF has entered into field situations to forge innovative farming practices combining the traditional and the modern methods.

Presently, AMEF is working as a development-oriented, non-government organization, devoted to promoting ecological farming alternatives among small and marginal farmers engaged in dry land farming. The twin objectives of AMEF are: improving the livelihoods of the farm families in dry lands and addressing the environmental concerns. The focus, thus, includes improvement and promotion of alternative farming practices to bolster food security, strengthen livelihoods, address environment issues and promote more sustainable agricultural practices. It adopts participatory approaches that recognise local knowledge systems and involves local farmers' groups, community-based organizations (CBOs), non-government organizations (NGOs), government departments and other biomass actors in the development process.

The **focal activities** of the organization are given below:

1. **Generating alternative farming practices:** Beginning with on-farm crop improvements by means of Farmer Field School (FFS) and Participatory Technology Development (PTD) processes, technologies related to natural resource conservation and utilisation (NRC and NRU) get generated leading to alternative land use practices. This, in turn, helps to conserve and develop the farm resources and rebuild the environmental support to farming. In the process, the farmers' innovating capacities get enhanced.

2. **Forging gender equity social processes:** AMEF seeks to mitigate and ameliorate the inequality based on gender, caste and economic status. Thus, AMEF addresses these issues while planning and implementing its activities.
3. **Capacity building of farming groups through experiential learning methods:** AMEF has a firm conviction and believes that farming is what a farmer does. Therefore, if durable changes in farming are intended, it is necessary that, the farmers' perception is widened, insights deepened, attitudes modified and managerial abilities are upgraded. Therefore **human resource development** is the key. AMEF specializes in participatory and empowering education processes like Farmer Field Schools to guide farming communities.
4. **Focus on building capacities of Rural Youth as Sustainable Agriculture Promoters:** For the large and still growing rural population, agriculture still remains a major means of livelihood. For sustainable rural development**,** building the capacities of the rural youth to gainfully practice farming as well as guide their own farming communities is crucial. It enables **rural youth** to gain confidence in handling their resources better, get better returns as well as help them to get better social recognition which is so necessary for them to remain in villages.
5. **Building NGO network:** For scaling up of eco-friendly initiatives, AMEF interacts and strengthens the NGO networks involved in the land-based activities. By using training situations created in the cluster villages, capacity building of partner NGOs forms the major portion of AMEF's work.
6. **Developing institutional linkages:** AMEF seeks to build linkages with state, national, international research and development organizations to harness the technologies and methodologies for accessing information and involve such agencies to move towards participatory research and development approaches.
7. **Information sharing strategies:** Documentation and dissemination on technology and methodology of ecological agriculture form an important responsibility of AMEF. It brings out manuals, guidelines, workshop proceedings, working papers, case studies etc.
8. **LEISA India publication:** AMEF intends to develop LEISA as a preferred platform for promoting eco-farming alternatives and reach more persons and institutions interested in sustainable agriculture. AMEF in collaboration with ILEIA works to enhance the capacities of NGOs and others in documenting and disseminating experiences on sustainable agriculture.

In attaining the twin objectives of improving livelihoods and addressing environmental concerns, AMEF builds its operational strategies based on the fact that the farmer is the primary user of the land resources. Therefore, AMEF begins working with the farm families, farm resources and farming systems. A start is made in village clusters with groups of farmers, using LEISA technologies. This is used as a springboard for scaling up LEISA practices and as a training base for development agencies and practicing farmers.

So far, AMEF had been using combination of methodologies in implementing the focal activities. Empowering learning processes like Farmer Field Schools and Participatory Technology Development are used. While the primary objective remains promoting SA in the dry lands of Deccan Plateau, AMEF is making earnest efforts to address the issue of natural resource management in some pockets of rainfed and irrigated rice areas through the "System of Rice Intensification" principles. Also, the principles of SRI are being tried out in Ragi and Red gram. On a modest scale, has been promoting revival of farmer preferred local varieties and promotion of home gardens with urban citizens.

2. AREAS OF OPERATION

AME Foundation initially operated through Area Units (AU) located at Dharwad and Chintamani in Karnataka, Anantapur in Andhra Pradesh and Dharmapuri in Tamil Nadu with outreach area in Kolar. After the conclusion of the FAO programme in December 2008, with abrupt disruption in fund flows, AMEF had to find ways to survive and continue its activities. There were spirited efforts by each area unit to mobilize resources. However, by the end of the year 2009, out of the four area units, Dharwad and Dharmapuri were seen to be able to support themselves in the financial year 2009-2010. After prolonged internal discussions within the organization at all levels, the Board recommended closure of units in Anantapur and Chintamani with effect from 01.01.2010. During 2010-11, area unit Tiruchi was restarted and Dharmapuri was closed. Thus, the Area units were located at Dharwad and Tiruchi while field activities continued in Anantapur, Chintamani and Dharmapuri with the support of trained rural youth and field staff.

3. THE PROGRAMMES

The major projects implemented included

3.1. Pilot project on augmenting the productivity of lead crops / activities through adoption of sustainable agriculture practices in Kolar District – supported by NABARD

3.2. Promoting LEISA for improving livelihood of dry land farmers through Farmer Field School (FFS) – supported by NABARD

3.3. SRI Programme in the sandbox – supported by Deshpande Foundation

3.4. Producing more food grain with less water – supported by WWF

3.5. Promoting agrobiodiversity - Community managed germplasm banks to preserve agro biodiversity – supported by GEF

3.6. The Growing Connection – supported by FAO

3.7. Introducing forage innovations to improve farm income of woman dairy farmers of Tamil Nadu – supported by Department of Science and Technology

3.8. LEISA India programme

3.1 Pilot project on augmenting the productivity of lead crops/ activities through adoption of sustainable agriculture practices in Kolar District

A three year pilot project on augmenting the productivity of lead crops/ activities through adoption of sustainable agriculture practices was initiated in collaboration with NABARD during the year 2010. The main focus of the project was to reduce the yield gap in the major crops in the area, reduce the use of chemicals and cost of production and facilitate seed production among farmers. The three year project was implemented on a pilot basis in 5 villages in Bangarpet, Karnataka

Farmer observing Red gram crop with luxuriant growth

The project on augmenting the productivity of lead crops / activities through adoption of sustainable agriculture practices was initiated in collaboration with NABARD during the year 2010. The three year project was implemented on a pilot basis in 5 villages in Bangarpet, Karnataka (Balamande, Bodapatti, Boyilur, D.P.Halli and Gullahalli villages) with the following objectives.

- To improve and stabilize the yields and reduce the yield gap in the lead crops
- To enable the local production of quality seeds
- To reduce the usage of chemicals and thereby the cost of production
- Build a cadre of rural youth trained in promotion of sustainable agriculture.

Processes

PRAs were organized to understand the current status of agriculture and the scope of improving yields. Farmers were organized into groups in all the five villages. Twenty training events were conducted with farmer groups on SA and SRI activities. 260 farmers were trained on Ragi, Redgram and SRI paddy. Farmers were taken on study tours (2 visits to Krishi Mela at UASB, 1 Visit to AMEF project area at TN and 1 visit to AMEF project area at AP).

Cluster Development Committee (CDC) and District Level Monitoring and Review Committee (DLMRC) represented by all line departments were formed. They have been meeting regularly, reviewing the progress and preparing action plans.

An intensive Training of Facilitators (ToF) has been organized for 22 **rural youth** enabling them to learn Low External Input Sustainable Agriculture (LEISA) Practices and facilitation skills to conduct participatory learning processes like Farmer Field Schools. These trained youth are conducting Farmer Field Schools in villages.

Results

Stabilising yields and reducing yield gap

To stabilize and sustain yields, farmers were motivated to practice Sustainable Agriculture (SA) practices which included soil moisture conservation practices, soil fertility improvement practices and various agronomic practices based on the crop choice.

Around 124 farmers adopted SA practices and 64 farmers adopted SRI principles in Ragi. Farmers adopting SRI practices in Ragi, on an average, harvested around 12.5 quintals per acre, against the normal 8.5 q/ac, thus getting 48% improvement in the yield.

40 farmers adopted SRI in Paddy and got 33% more yield compared to conventional paddy grown in the area. A sample data of 15 farmers revealed that farmers on an average received 8 quintals more per acre than the normal yield of 24 quintals per acre.

Consequently the net incomes also increased. SRI ragi farmers got 21% more net income and SRI paddy farmers realized around 29% increased net incomes.

Yield details of crops in comparison with baseline

Sl No	Crop	Yield details in q/acre			Remarks
		Baseline	*FP 2010-11*	*SA plots 2010-11*	*% increase in SA plots against baseline*
1	Groundnut (sample size: 10 out of 10)	2.5	3.5	5.5	120%
2	Ragi (sample size: 25 out of 64 farmers)	8.5	10.5	12.5	47%
3	Paddy (sample size 15 out of 40 farmers)	24	25	32 (SRI plots)	33%
4	Same (sample size: 2 out of 2 farmers)	3.5 (local var)	-	5.5	57%
5	Red gram (sample size:12 out of 40)	2.5	4.5 (TTB-7)	6 (BRG-1&2)	140%
6	Rajalu (4 farmers)	-	-	-	Farmers have taken up first time

Seed production

Fifty two farmers have been enabled to take up seed production activity in 5 different crops in Kharif 2010, namely Groundnut (10 farmers on 5 ac), Redgram (11 farmers on 6 ac),, Ragi (25 farmers on 12 ac), Same (2 farmers on 1 ac) and Rajalu (4 farmers on 0.10 ac).

Seeds of Ragi (MRI), Redgram (BRG 1 and BRG2) and groundnut (TMV2) were procured from UAS, Bangalore for seed multiplication. Farmers along with Seed production techniques also followed SA practices while growing crops for seed production. The harvests have been good and now farmers are ready with seeds available to be shared with other farmers in the region. Quantity of seed available for distribution for next season – Groundnut – 5q, Red gram – 5q, Ragi – 12q, Same – 1.5q. Plans have been made to distribute seed to around 400 farmers for the Kharif 2011 season

Sl.No	Crops	Variety	Area (Acres)	No of farmers	Average Yield Q/acre /Total	Qty available for distribution (Quintal)	No.of Farmers / area in acres enrolled for seed production for next season
1	Groundnut	TMV-2	5	10	5.5 / 27.5	5	20 / 10
2	Red gram	BRG-1 and BRG-2	6	11	6 / 36	5	125 / 125
3	Ragi	MR-1	12	25	12.5 / 150	12	240 / 240
4	Same	OLM-203	1	2	5.5 / 5.5	1.5	20 / 20
5	Rajalu	Suvarna	0.10	4	-	-	10 / 10

Reduced usage of chemicals and cost of production in vegetables

A season long FFS in tomato was organized with 100 farmers belonging to 5 groups in five villages. FFS enabled farmers to practice eco friendly alternatives leading to reduced cost of cultivation.

Field days

SRI Ragi Field day was organized at Boyilur on 19 November 2010, in the field of Sri Pillappa. More than 100 farmers participated in the programme and exchanged ideas. AGM NABARD Kolar, Assistant Director, Department of Agriculture; Asst. Director - Animal Husbandry, Bangarpet, P.D.O. Balamande, members of CDC, Village Panchayat and SHG group participated. All the participants visited the SRI Ragi plots and interacted with each other.

SRI Paddy field day was organized on 25 November 2010 in the field of Sri M.Srinivas, in **B**alamande. More than 100 farmers participated along with AGM, NABARD Kolar, Taluk Panchayat President, Krishika Samaja President, Officials from departments of Animal Husbandary, Sericulture and Horticulture, C.D.C president and other village Panchayat members. Farmers and guests visited the SRI Paddy fields and had discussions about the cultivation of the crop in detail.

A field day on SRI Redgram was organized in the field of Sri N.Venkatesh in Gullahalli on 30 November 2010. More than 150 farmers participated. Other prominent invitees were AGM, NABARD Kolar, AMEF staff, Taluk Panchayath President, Krishika samaja President, Officials from Agriculture and Veterinary departments. Members of SHG group and village panchayat also participated in the programme.

Three field days on “SRI Paddy” were organized in Hasarambi, Madikoppa and Nyasargi villages. Farmers shared their experience in adoption of wider spacing, weeders utilization and treating with bio agents in harnessing more productivity in paddy. Notable invitees included Ex-MLA of Dharwad taluk, Bank Managers, Assistant Director – Agriculture Department, Director- Deshpande Foundation and representatives from village, taluk and zilla panchayats.

SRI shows the way for food and income security

Narayanamma is a farm woman doing farming on three acres of land in a small village called Balamande in Bangarpet taluk, of Kolar district (Karnataka). She lost her husband and had to take care of her family consisting of five elders and two children. She has been cultivating paddy using conventional methods, with the water available from the open well, sufficient to irrigate 15 guntas (0.37 acre). But from the last two years, there was a loss in the yield owing to lack of water during panicle formation stage. Hence, she had to shift to ragi and other crops. To compensate the loss of paddy, she started buying rice from the market for household consumption.

In 2010-11, Narayanamma decided to follow SRI method of paddy on 20 guntas of land, under the guidance of AMEF. She transplanted 13 days young seedlings using rope markers. She weeded the field thrice, twice using a cono weeder. With alternate wetting and drying, she was able to manage with the water available in the well. Narayanamma harvested 18 quintals of paddy. She is happy that not only her family requirements could be met, but generated surplus which could be marketed. Now more farmers in her village are motivated to adopt SRI practices.

3.2 Promoting LEISA for improving livelihood of dry land farmers through Farmer Field School (FFS)

The two-year NABARD – AMEF project came into effect on 1st April 2009. The focus of the programme was to promote sustainable agriculture among small farmers through Farmer Field School methodology. The farmer groups were enabled to practice sustainable agriculture and later graduated into Farmer clubs with the support of NABARD.

Farmer participants during a FFS session

The project on "Promoting LEISA for improving livelihood of dryland farmers through Farmer Field Schools (FFS)" was implemented in 4 villages of Hubli taluk (Inamveerapur, Kurdikeri, Karadikoppa, Bommasamudra) with NABARD's support. The objectives of the programme are:

- Strengthening and supporting of existing FFS for better adoption & dissemination of LEISA technologies in Dry farming.
- Supporting and encouraging Participatory Technology Development process
- Reducing chemicals in vegetable cultivation and improving yields in dry lands

Processes

- Farmers were organised into groups. They conducted meetings regularly and were also into savings habit.
- Training was organized on Group Strengthening to SHG members of Kurdikeri, Kardikoppa, Bommasamudra and Inamveerapu., Resource person, Mrs. Rathna Kulkarni from RAPID, Dharwad and Mr. Hosamani from Bharatiya Grameen Seva samsthe, Kundagol gave training

to participants on purpose of formation of groups, importance of savings and maintenance of accounts and SHG books

- A five-day residential 'ToT' Training Programme was conducted in 'RUDSETI Training Center' at Dharwad, from 19th to 23rd October 2010. The main objectives of the programme were to equip the participants to deal with various issues in land, water and crop management, making use of LEISA techniques and FFS methodology. Participants were trained on eco-friendly crop management practices, Integrated Nutrient Management Practices and Integrated Pest and Disease Management Practices. The Course Curriculum was developed based on the findings of the Baseline survey, opinion of farmers and similar past experiences of AME Foundation. A team of five facilitators from AME Foundation with the help of other Resource Persons facilitated the programme. Twenty three participants, including three women participated in the programme.

- 6 days TOT on Sustainble Agriculture & FFS was organised for the volunteers from 14th to 19th Feb 2011. Volunteers and farmer representatives of Bommasamudra, Kardikoppa and Kurdikeri Inamveerapur actively participated in the training programme,
- Group members of Bommasamudra, Kardikoppa and Kurdikeri Inamveerapur were oriented on FFS. Members were oriented on FFS concept, objectives and method of conducting FFS.
- FFS group members were trained on Floriculture by KVK, UAS Dharwad and distributed the Horticulture seedlings and Kitchen Garden seeds
- BLOTP was conducted at Inamveerapur, Hubli taluk of Dharwad District. All the 4 FFS groups were registered as Farmers clubs.
- A Block Level Bankers Committee meeting was organised at Hubli on 14th Jan 2011.

Results

The following results have been possible owing to farmers enthusiastic participation in Farmer Field Schools as well as excellent support from NABARD.

1. Adoption and dissemination of LEISA technologies in Dry farming

80 Farmers from 4 villages organized into 4 FFS groups are undergoing trainings through Farmer Field Schools. Two FFS in tomato and two in sorghum cropping system have been organised. They have adopted 8-10 alternative practices on in-situ rain water management, soil fertility improvement and improved cropping practices, in combination.

Some of LEISA practices include cultivation across slope, Vermicomposting, SRI, Planting of Horticulture plants (Mango, sapota, lime, curry leaves, amla), Azolla cultivation; Seed treatment with bio agents; Use of Improved Seeds (soyabeans); Glyricidia cuttings on bunds. Farmers adopted backyard kitchen garden for nutritional & income security

After undergoing FFS, they are able to understand as well as practice and exchange their learnings in farmer meets and field days, more confidently. Some of them are potentially developing as lead farmers capable of enabling farmer to farmer spread of practices. Also, these groups have undergone intensive training on Group management.

Farmer groups of Kallapur, Ramapur, Veerapur, Amblikoppa, Haletegur and Madikoppa villages were converted to farmer clubs under the BLOTP programme. With the support of NABARD, the groups

were provided an orientation training. After being organized as NABARD farmer clubs, they are availing other development opportunities. Farmers were enabled to form Joint Liability Groups to purchase milch animals

2. Participatory Technology Development process

Varietal trials have been taken up in Tomato and sorghum. In Inamveerapur and Bommasamudra villages, FFS group farmers have taken up Long term experiment in Sorghum crop (varietal trial with M35 -1 & local variety Annigere) in two collaborator farmers field along with adopting LEISA technologies in the field. In Kardikoppa and Kurdikere villages, FFS group farmers have taken up Long Term Experiments in Tomato crop (varietal trial with Mrityunjaya, GS1, DMT1, DMT2) in two collaborator farmers field. They raised the nursery of different tomato varieties.

In Kurdikeri and Kardikoppa villages in Dharwad, trials were taken up in different varieties of tomato crop. Farmers have planted marigold as trap crop and followed raised bed nursery using seeds treated with bioagents, to get disease free healthy seedlings.

3. Reducing chemicals in vegetable cultivation and improving yields in dry lands

The farmers have used botanicals in tomato for controlling the pest. Farmers have taken up Marigold as trap crop to control fruit borer.

3.3 SRI Programme in the Sandbox

To address the issue of water use, which is a scarce resource in our working areas, AMEF started promoting SRI in a small way during 2004-05. This was upscaled with the support of Deshpande Foundation in the sandbox area (Dharwad) from 2008 onwards. SRI has been promoted both in the irrigated as well as in the rainfed areas.

Farmers during a sharing event

SRI promotion was implemented in 12 villages in Dharwad taluk and 18 villages in Kalaghatagi taluk in Dharwad district.

Processes

Gram sabhas and village meetings were organized to create awareness about SRI among the farmers. The farmers were trained on SRI principles. Wall paintings and banners were exhibited and pamphlets were distributed to farmers in 30 villages in the district, creating awareness about advantages of SRI method of paddy cultivation.

Organised two internal study tours between the different clusters. Farmers shared how they adopted SRI & got better yields with reduced costs during the interactions with new farmers. The changes in SRI were observed by the visiting farmers.

Training of Trainers on SRI was organized for 6 days to train rural youth on SRI principles so that they provide hand holding support to the farmers during the sowing season. Around 56 volunteers got trained in two Trainings, to help the farmers in sowing, train them on SRI and to provide field support during the season.

The SRI volunteers were trained on the SRI data collection process. Formats were developed to record the information on SRI such as farmers profile, plant growth parameters, yield parameters & cost of cultivation. Under the project, information at three different stages is collected from a sample size of 200 farmers.

SRI adoption

Around 4671 farmers adopted SRI covering around 2108 acres in 33 villages of Dharwad and Kalaghatagi taluks by AMEF directly in Kharif and Rabi seasons, Farmers were empowered through Farmer Field School (FFS) methodologies. They were sensitized on principles of SRI. The farmers realized the benefits of SRI and more number of farmers showed interest in adopting SRI. Rural youth trained on SRI principles were instrumental in motivating the farmers to adopt SRI by assisting them in field during the sowing operation.

Farmers reduced the seed rate from 40 kg to 5 kg/acre. They were used to spacing of 6-7 inches between the rows in convectional cultivation. They adopted a spacing of 10- 12 inches in SRI.

Profuse weed growth was the biggest constraint faced by SRI farmers. But farmers adopted ecological methods to control weeds as well as pests. They planted Glylricidea cuttings all along the borders of SRI paddy and included sun hemp as an intercrop. These practices effectively controlled weed on one hand and improved soil fertility on the other. The group members released predators (Trichogramma chelonis) in controlling pests in paddy crop. Biological methods like growing Azolla and sowing paddy seeds along with sunhemp also helped in controlling weeds.

AMEF had an opportunity to share its work with the State Chief Minister Shri. Yediyurappa during his visit to Deshpande Foundation in Hubli to felicitate Dr. Gururaj Deshpande.

AMEF exhibited the work done in the sandbox area on promoting SRI and LEISA practices. Also, around 1000visitors who participated in the event visited AMEF stall and appreciated the work.

Around ten trainings were organized for the farmers on weed management in SRI. Different methods of weed management were covered in the training. The farmers got educated that the local intercultivator can be modified and used for weed management in the rainfed SRI.

Farmers also tried out different weeders, like roto weeder, cono weeder and cycle weeder in SRI paddy. These were modified based on the need, with the help of local artisans. Now, farmers are able to manage 70% of the weeds.

Training on the Integrated Pest and disease management was organized. Farmers understood about the major pest and diseases in paddy and use of Trichogramma sp. This has helped in controlling stem borer and leaf miner infestation to some extent as they become endemic pests in the area.

Two trainings on Spices and Condiments were organized with the help of KVK to the FFS group famers from 1 to 2nd Feb 2011.

Results

The farmers have seen the result in terms of increase in yield under rainfed conditions. They got 13 quintal/ acre under SRI whereas under conventional practice it was 11 quintal/acre. Under transplanted conditions, farmers got 16 quintals/ acre under SRI which was 3 quintals more than the conventional practice.

Farmers have established SRI-Info centers in their own villages at Dharwad area. The main purpose is to share about SRI to other farmers. The farmers manage the centers. The critical inputs like, bio fertilizers, markers, weeders are kept in the center for use by farmers during the season.

Challenges

The SRI promotion in rainfed conditions as a programme was a challenge. The higher adoption rate of SRI resulting in more number of farmers adopting SRI is mainly due to the facilitation by participatory learning processes, hand holding support by trained rural youth, and appropriate scaling up strategies. The enhanced yield upto 18 to 22 % with reduced cost was possible owing to enhanced confidence levels which was almost unimaginable at the beginning of the season.

SRI has also allowed judicious use of farm inputs like seed and water. If done systematically, SRI has potential to spread further. However, there are challenges in upscaling SRI in terms of preparing Human resources. On one hand, there is a need for large number of trained local extension workers who need to be physically present in the farmers field at the time of first sowing. Also, it is to be noted here that the sowing operation for all farmers gets completed in a week's time. On the other hand, in order to motivate large number of farmers spread across villages, it is necessary to begin community mobilization, group formation & early skill training events to prepare farmers to be ready. Farmers should be encouraged to use the local implements if they are available with them. That helps to adopt and continue SRI. Continuous follow up is necessary to motivate the farmers.

Technical support by AMEF to SKDRDP

AME Foundation was identified as technical resource organization to support SKDRDP in spreading SRI under its NABARD supported programme. NABARD supported program is being implemented by SKDRDP in nine districts of its operational areas in Dharmasthala in Karnataka.

It was agreed that AMEF would provide support in building capacities of SKDRDP staff on SRI and process documentation after reviewing the training gaps. Accordingly, the following support was provided. Around 35 agriculture officers of SKDRDP were trained as facilitators and farmers were trained on SRI during 2009. During the reporting period training on data analysis, compilation of data and PTD design was conducted to Agriculture Officers at Belthangadi. They were also oriented on developing data collection formats. Field visit was carried out to backstop the SKDRDP program, to guide the farmers about SRI principles and practices and to educate farmers on eco-friendly practices. Farmers who adopted SRI shared that number of tillers in SRI is more in comparison to conventional practice. Few farmers experienced cost reduction on labour due to usage of weeders.

The trained SKDRDP staff, in turn motivated around 6000 farmers to adopt SRI Paddy covering 5500 acres in 9 districts.

3.4 Producing more food grain with less water

AME Foundation in collaboration with WWF - ICRISAT has been implementing the three-year SRI project titled "Producing more food grain with less water" from 2007-08 onwards. The main thrust of the project in its final year was to scale up SRI paddy, promote SRI principles in finger millet and Red gram and facilitate integration of local ideas, innovations and adaptations through PTD trials.

Farmer in Anantapur using a weeder in SRI paddy crop

AMEF has promoted and scaled up SRI method of paddy cultivation since three years in Andhra Pradesh, Karnataka and Tamil Nadu – identifying farmer needs and building farmer capacities with requisite skills and knowledge. The lessons learnt in the previous phases of the project, the discussions between WWF and AMEF, and the suggestions made during several evaluation visits form the basis for the implementation of activities during this year. The major focus has been promotion and up scaling of SRI in paddy and introduction of SRI principles in other crops such as Ragi and Red gram.

The major objectives of the programme are

- Promotion of SRI paddy in new villages and scaling up in the areas where SRI paddy has been initiated in the earlier years (old villages)
- Promotion and scaling up of SRI principles in finger millet
- Promotion of SRI principles in Red gram
- Conducting PTD trials integrating local ideas and innovations

- Studying water use efficiency for assessing system benefits attained through SRI in comparison with conventional rice farming method
- Documenting and Sharing – process documentation/ studies/ handouts/ and annual sharing events

AMEF worked directly with farmer groups as well as through partnership with NGOs**.** To work with farmer groups, AMEF identified and trained rural youth to serve as rural extension mechanism. They were trained through TOTs (Training of Trainers), organized in Dharwad, Kolar and Tiruchi. TOTs enabled rural youth to gain knowledge on SRI as well as facilitation skills for guiding participatory learning processes. These trained youth conducted grama sabhas and awareness workshops; identified potential SRI farmers; Provided field guidance and training. As these rural youth are locally available, ensuring regular support to farming communities, the farmers became confident to try out alternatives.

AMEF worked in partnership with NGOs too. In Pudukkotai, Tamil Nadu and in AP, the SRI was promoted in association with partner NGOs. In Andhra Pradesh, under the guidance of AMEF, two partner NGOs, namely AVF and ARDS promoted SRI in Ananthapur and Chittoor districts in 30 villages by reaching 577 farmers. AVF is working as partner NGO with AMEF since one year and ARDS has started working with AMEF during the year. In Tamil Nadu, AMEF worked in partnership with Aranya Commune. The partner NGO promoted SRI with 63 farmers in 5 villages.

Capacity building activities

The activities included need based specific modular training events, organization of sharing events, establishment of SRI information centres for continued and wider sharing.

Modular training events were organized on seed selection and treatment, nursery management, transplanting, water management, weed management, integrated pest management. These trainings helped the farmers to adopt SRI practices. In total, 278 trainings were conducted during the Kharif and Rabi season in all the three states. A number of sessions were organized to create opportunities for sharing experiences. For example study tours, field days etc**.**

SRI in Paddy

SRI in paddy crop was promoted among 3855 farmers in1889 acres across three states during 2010-11. This was against a plan of reaching 3100 farmers in 1550 acres in 70 villages across three states. Thus, 24% more number farmers and 14% more area was covered during this year of intervention.

SRI was promoted in Kharif as well as rabi seasons. During Kharif, SRI was promoted with 2484 farmers in 1228 acres in 63 villages. The outreach in Kharif was more in Karnataka due to favorable weather conditions. Around 1703 farmers in Karnataka adopted SRI in paddy. On the other hand, owing to delayed onset of rainfall, only 271 farmers in Andhra Pradesh and 510 farmers in Tamil Nadu could go in for SRI. However, farmers who could not go in for SRI in Kharif were motivated to take it up in the Rabi season. Around 308 farmers in AP and 1010 farmers in Tamil Nadu adopted SRI during the Rabi season.

State	No. of farmers adopting SRI in paddy		
	Kharif	**Rabi**	**Total**
Andhra Pradesh	271	308	579
Karnataka	1703	-	1703
Tamil Nadu	510	1063	1573
TOTAL	**2484**	**1371**	**3855**

SRI was promoted in transplanted conditions as well as rain fed conditions. SRI in transplanted paddy was promoted among 2288 farmers covering 1061 acres across three states. Around 1567 farmers adopted SRI under rainfed conditions on 728 acres.

State	No. of farmers adopting SRI in paddy		
	Transplanted	**Rainfed**	**Total**
Andhra Pradesh	513	66	579
Karnataka	202	1501	1703
Tamil Nadu	1573	-	1573
TOTAL	**2288**	**1567**	**3855**

SRI in Rainfed paddy

AMEF has successfully promoted SRI in Rainfed conditions in Dharwad since last year. During the year, **number of farmers practicing SRI has almost doubled**. Also, farmers in Andhra Pradesh have adopted SRI in rain fed areas for the first time in our working areas. In Dharwad area, farmers were using six coulters seed drills in rainfed conditions. As part of PTD, these were modified to four coulters with a distance of 25 cm between each coulter. The seed rate was reduced drastically from 30 kg to 5kg. Fine quality of FYM was mixed to make up the volume of seeds (30kg**),** which helped for easy and sparse fall of seeds.

SRI principles in dry land finger millet (Ragi)

Though it was planned to reach 200 farmers, around 290 farmers from 14 villages in Kolar and Chikkaballapur districts in Karnataka adopted SRI principles in 207 acres of finger millet crop. Improved yields during the previous year (2-3 quintals), crop not getting lodged owing to better root growth, convinced the farmers to adopt SRI principles in Ragi during this year also.

The SRI principles followed by farmers in Ragi were the following:

- Seed rate of 2 Kg/acre
- Young seedlings – Sixteen to eighteen days' young seedlings were planted by farmers. Since the rainfall is erratic in the region, to harvest adequate moisture at right time and to make use of right aged seedlings for transplanting, farmers practiced system of forming **staggered nurseries**. It is a method of forming two to three beds with 2 kg seeds in each bed, with an interval of a week or 10 days.
- Wider spacing - Square planting with one seedling per hill and 1ftx1ft spacing.
- Weed management in right time

- Farmers followed insitu rain water management

SRI principles in Red gram

Generally, in Kolar district, Red gram is grown as an intercrop in Groundnut and Ragi crops under rain fed conditions. Because of the good price in the market, currently, the area under Red gram as sole crop is increasing. However, the erratic rain in the district is affecting the sowing operations to be taken up at right time (during May-June), resulting in lesser yield. As the crop is gaining importance, both in terms of nutritional value as well as economic returns, AMEF explored adopting the principles of 'producing more with less' in red gram.

In areas where Red gram is grown as a sole crop, the following principles of SRI (Lesser seed rate, wider spacing) were tried out in Kolar region.

- Wider spacing of 3.5X1.5ft (Row to plant)
- Seed rate of 3 to 4 kg seeds /acre (conventional-6-8 kgs/acre)
- Weed management using local hoe or with Cycle weeder

Around 35 farmers of five villages in Bangarpet taluk, Kolar district adopted SRI practices in 16 acres of Red gram.

Along with few SRI principles, farmers have also followed Sustainable Agriculture (SA) practices like, sowing across the slope, conservation furrows, addition of organic manure, seed treatment with biologicals and IPM practices. The farmers did nipping of young shoots after 30th day of planting in order to encourage more number of branches. Additionally, nurseries are being raised during (May-June) in polythene covers, so as to transplant right aged seedlings when conditions are favorable.

Field Results

SRI Paddy (Kharif, Rabi, Rainfed conditions)

A sample of 30 farmers in Kolar, 111 in Tamil Nadu and 20 in AP were selected to compare the yield and income from conventional paddy and SRI paddy during the Kharif season.

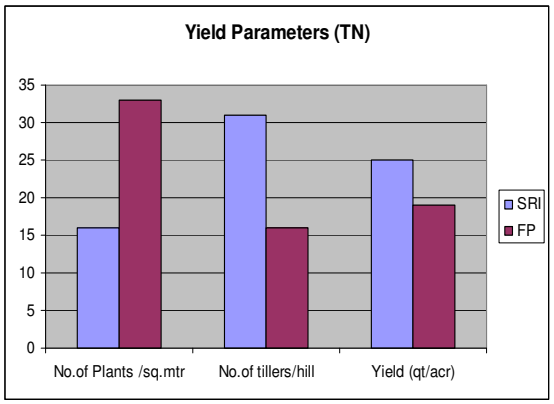
The average age of seedlings in transplanting varied from 14 days to 16 days and seed rate varied from 2 to 3 kg per acre in all three regions. On an average 36 tillers per hill were observed in AP, whereas 35 tillers in Karnataka and 30 tillers in Tamil Nadu were observed per hill. It was observed that the farmers from all the regions have received more net income by following SRI practices. The cost of cultivation in SRI paddy was lower in all the areas as compared to conventional paddy. The net returns improved by 44% in Karnataka, 164% in Tamil Nadu and 26% in AP.

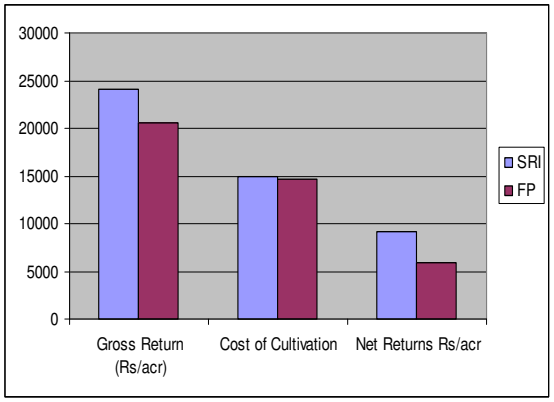
	Andhra Pradesh			**Karnataka**			**Tamil Nadu**		
	Transplanted		Rainfed	Transplanted		Rainfed	Transplanted		Rainfed
	Kharif	Rabi		Kharif	Rabi		Kharif	Rabi	
Sample size	20	30	16	30	-	35	111	67	-
Yield (q/ac)	30	30	16	22	-	10	22.3	25	-
Cost of Cultivation (Rs/ac)	11767	11670	8000	6000	-	3585	14997	14901	-
Gross Returns (Rs/ac)	32000	31265	17000	25700	-	11000	25389	24078	-
Net Returns (Rs/ac)	20233	19595	9000	19700	-	7415	10392	9177	-

In **Rabi transplanted paddy**, the number of tillers was almost double in Tamil Nadu (16 tillers in traditional practice and 31 in SRI method), where as in Andhra Pradesh the number of tillers in SRI method is 126% more in comparison with farmer's method. However the yield obtained under SRI method in both the states is almost equal (31% more yield in TN and 30% more in AP in comparison with traditional practice)

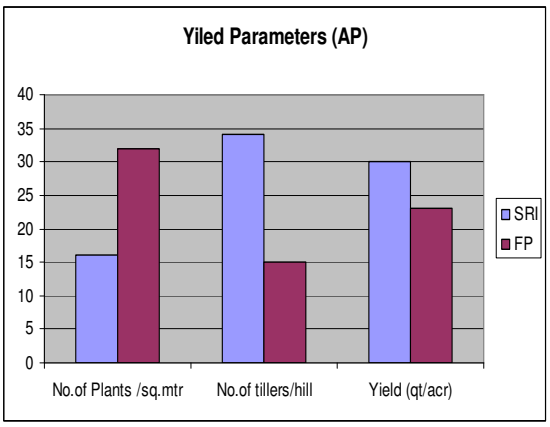
It was observed from the data analyzed from AP and TN that farmers received more net income during Rabi season also. The net income increased to the extent of 54% in Tamil Nadu and 44% in Andhra Pradesh.

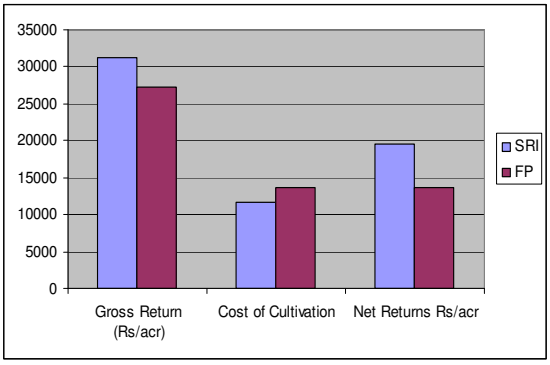
Tamil Nadu





Andhra Pradesh



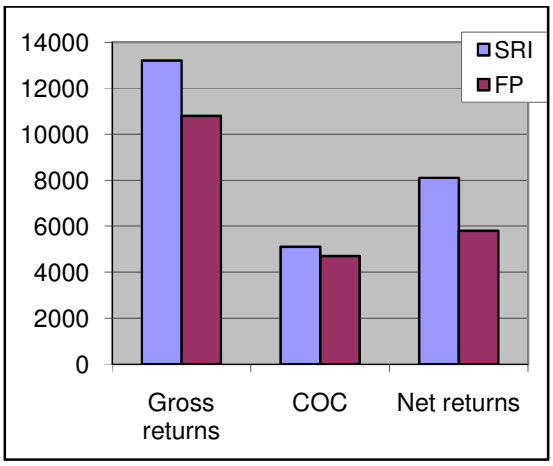


Under **rainfed** conditions, the number of tillers is 263% more in case of Andhra Pradesh and 163% and 60% more than the traditional practice in Kolar and Dharawad regions. The yield improvements in SRI are: 50%, 25% and 78% in Kolar, Dharawad and AP respectively.

The cost of cultivation has reduced in Kolar and Dharawad area, while in AP the cost of cultivation has increased to an extent of 91%. The net returns have doubled in Kolar under SRI, and more than doubled in Dharawad (164%) and AP (121%) in comparison with farmers practice.

Field results - Transplanted Finger millet (Ragi)

The seed rate was reduced to the extent of 75% and the age for transplanting was 18 days in SRI Ragi. The plant growth was healthy with doubled number of tillers in SRI Ragi practice plots. The farmers obtained 22% more yield and the net income was raised by 39% in case of SRI Ragi farmers,



Parameters	SRI	FP	% change
Sample size	15	15	
Area (acre)	10	10	
Seed rate (kg/acr)	2.5	10	<75 %
Age of seedlings for transplanting	18	30	
No. of hills/sq.mtr	24	33	<7%
No. of tillers/hill	4	2	>100%
Yield (q/acre)	11	8.5	>22%
Gross return (Rs/ac)	13200	10800	>22%
COC (Rs/ac)	5100	4700	>8%
Net returns (Rs/ac)	8100	5800	>39%

in comparison with farmers practice

Comparison of SRI Method in Redgram with Farmers Practice

Activities	SRI and SA practices	FP
Sowing	Done in polythene covers during May-June month	Direct seed sowing after receiving rains
Seed rate(Kg/ Acre)	2 Kg	5 to 6 Kg
Seed Treatment	Done with Rhizobium @25 Gms / Kg seeds	Not done
Planting	Planting of 30-35 day old seedlings	-
Spacing	2.5 ft X 3.5 ft	2ft in lines only
Weeding	2 times done (using cycle weeder and manually	Not done
Nipping	Done after 30 days of planting	Not done
Yield obtained	6 q/acre	3q/acr

SRI Info centers

Farmers have established SRI-Info centers in their own villages at Dharwad area. The main purpose is to share about SRI to other farmers. The farmers manage the centers. The critical inputs like, bio fertilizers, markers, weeders are kept in the center for use by farmers during the season.

PTD trials

AMEF has guided the SRI farmers to conduct PTD trials for improving farmer-to-farmer spread and to form critical mass for further diffusion of innovation.

Based on discussions with SRI farmers, four PTD trials were organized during the year.

Promotion of sustainable agricultural practices requires generation of alternative locally suitable farm alternatives which are low cost and low risk. Participatory **Technology Development (PTD)** is a process in which farmer is involved in various stages, right from problem identification, identifying suitable options, trying them out in a limited area, comparing results with farmer's own practice and assessing the suitability of the option. It is the process of purposeful and creative interaction between local farming groups and the change agency for generating appropriate and affordable technologies**.** It is a process to foster building up farmer's capacity to identify, innovate, test and evaluate the intended technologies enabling them to find a solution for the perceived problem**.** PTD encourages the farmers in skills of conducting experiments and thereby increasing their self confidence which would improve the adoption of suitable farm alternatives.

a) Impact of age of seedlings on yield under SRI method

Three trials were carried out - one each in farmer's field in three locations – Andhra Pradesh, Kolar and Dharwad.

In Andhra Pradesh, the trial was done by Naganagowda, a farmer in D Kurrapalli, Kottakota Block. Three treatments were used on 10 cents each. Seedlings of three different ages were used as three treatments – seedlings of 12 day old, 18 day old and 23 days old. Same variety (Vimal) was used for all the treatments to reduce the variations owing to varietal differences. Different nurseries were raised so that the transplanting could be taken up on a single day. Transplanting was done on 14th Jan 2011 and three observations were made – 16 days after transplantation (DAT), 36 DAT and 60 DAT.

Farmers observed that the yield has increased when the younger seedlings were planted (12 day old). The yield is reduced to an extent of 8% when 18 day old seedlings are planted and to an extent of 33% when 23 days old seedlings are being planted. Thus, farmers got convinced of using young aged seedlings for obtaining good yields.

In Karnataka, the trial was carried out by Mr.Eswar Rao, a farmer in D.P Halli, Kolar district. Three treatments were used on an area of 10 cents each. Seedlings of three different ages were used as three treatments – seedlings of 12 day old, 18 day old and 25 days old. Same variety (Ganga Kaveri) was used for all the treatments to reduce the variations owing to varietal differences. Different nurseries were raised so that the transplanting could be taken up on a single day. Transplanting was done on 18th November 2010 and three observations were made – 18 days after transplantation (DAT), 53 DAT and 86 DAT.

Like in Andhra Pradesh, similar results were obtained in Karnataka also. The yield level was reduced to an extent of 24%, when seedlings are 25 day old.

The third trial was laid out by Channamma, a farmer in Hulukoppa, Kalaghatagi taluk, Karnataka. Three treatments with 10-day, 20-day and 30-day old seedlings were carried out, each on 10 cents area. Variety Jaya was used for all the treatments. The crop was transplanted on 29th March 2011. Observations were taken on 16 days and 30 days after transplantation.

In Dharwad area too farmers observed that the transplantation of 10-day-old seedlings resulted in increase of 2 to 4 quintal more when compared to transplanting of 20 days and 30-day-old seedlings respectively.

b) Weed Management Practices

To understand the efficiency of weed management using different methods, two PTDs were laid out.

The first trial was done by a farmer Baburao on his land in D P Halli, Kolar dist, Karnataka. Three options – Cono weeder, Roto weeder and manual weeding were tried out. The crop was transplanted on 18 Nov 2010 and observations were taken on 30th Nov and 15th Dec 2010.

The second trial was laid out in K Subramanyama's field in Dandapalli in Andhra Pradesh. Three options were tried out here: Cono weeder supplied by Dept. of Agriculture; Cono weeder supplied by Magnificent Engineers;and manual weeding. The crop was transplanted on 20 Jan 2011 and observations were taken on 5th Feb and 28th March 2011.

Farmers observed that the conoweeders supplied by Magnificent Engineers, Coimbatore performed better in comparison with other weeders. Thus, through these experiments identified the efficient weeding method suitable to their local conditions besides realizing the importance of timely weeding for better yields.

c) Impact of different seed rate on yield under rainfed SRI

Gurunath, a farmer in Shigatti village undertook a trial on seed rate. Three treatments with varying seed rates (5 kg, 10 kg and 30 kg) were taken up using Intan variety. Farmers observed that the seed rate has significant impact on yield in rainfed areas. The seedrate of 5kg/acre has resulted into production of 10 quintals, which is 42% more than normal practice of farmers using 30kg seeds per acre.

d) Water Use Efficiency:

Besides the PTD trials, several tests were initiated on observing water use efficiency in the operational areas. Through focused group discussions, how this could be done was shared with the farmer groups. The factors such as capacity of the motor where irrigated, discharge time, approximate quantum of water discharge, the duration in total irrigated hours were observed. The comparisons were made between traditional methods and SRI methods. One of the farmers, Mr. Govindan from Kottur, Tamil Nadu, observed that there is around 35% water saving in SRI method in comparison to farmers' practice.

These experiments conducted by farmer's themselves helped them to get convinced about SRI principles as well as in sharing these learnings through field days and sharing sessions to other farmers.

Farmer Innovations

- Farmers in Dharwad district have mixed farmyard manure and vermicompost to make up the volume of seeds to 30-35 kg with 2-5 kg of the volume being the seeds for one acre.
- Farmers in Dharwad have sown sun hemp along with paddy to control the weeds under dry land conditions. Sun hemp is being incorporated into the soil by using a wooden plank when the paddy seedlings are 25-30 days old.
- In Krishnagiri district of Tamil Nadu**,** farmers getting dam water from KRP (Krishnagiri Reservoir Project) take intensive rice cultivation for three seasons in an year. This practice has resulted in reduced soil fertility resulting in poor organic matter and less nutrient availability over a period of time**.** There is little time available to restore soil fertility. A trial on incorporating green manure was initiated. Broadcasting green manure crops like sun hemp when the rice is about to be harvested is one such option, to gain time for its growth. Later, it is incorporated as green manure, to improve the fertility status**.** Twenty farmers have taken up this innovative practice and obtained paddy yield of 25 quintals per acre.
- Mr. Venkatachalapathi, farmer from B.kottakota of Chittoor district (AP) was growing Brinjal since many years under drip irrigation system (4ftX2ft). Over a period of time, he faced the problem of pest and diseases and reduced yields. Deeply disappointed with raising costs of cultivation and declining yields of Brinjal, shifted to paddy cultivation, used the facility of available drip irrigation system. He has used 5 kg seeds per acre and 25cmX20 cm spacing. He harvested 32 quintals of paddy in one acre
- Mr. Seenappa from Balamande village of Kolar district is a progressive farmer and has been cultivating paddy crop since many years under open well irrigation. Since last year, the output of water has declined, and he has given up growing paddy. After discussions with AMEF program staff, tried out direct seed dibbling of paddy on half an acre. (Seed rate – 1.2 kg for half acre of Arize-6444, Direct seed dibbling using one or two seeds per spot by keeping the spacing of I ft between rows and 20 cms between plants; Gap filling during 12th day; irrigated the plot during critical growth stages; used Cycle weeder two times and one time manual weeding. Even with scarcity of water, he counted on an average 65 tillers per hill and obtained 14 quintal of paddy in half acre.

Results and Lessons learnt

In the year 2010-11, we were able to motivate **3855** farmers to adopt SRI paddy in **1889** acres; 290 farmers to adopt SRI principles in finger millet on 207 acres and 35 farmers to followed SRI principles in Red gram on 16 acres. This achievement beyond the set target was possible owing to timely technical support provided by AMEF trained Sustainable Agriculture promoters/ SRI volunteers/ SRI preraks, participatory learning processes, field results realized by farmers in terms of saving resources (seed, water) and consistently improved yields and net returns.

Impressive yields and net returns were reported in both transplanted paddy and rainfed paddy in Kharif and Rabi seasons. Besides paddy, the SRI principles applied in Finger millet and Red gram resulted in increased yields by 3 quintals in each crop.

The PTD trials conducted by the farmers helped in improving their self-confidence. They converted all their ‘doubts’ into ‘studies’. These experiments (eg. age of seedlings, choice and design of weeders) conducted by farmer’s themselves helped them to get convinced about SRI principles as well as sharing their learnings with conviction through field days and sharing sessions to other farmers. Also,

helped them to become informed decision makers and innovators besides planning better, collectively.

Enthusiastic participation led to empowerment and innovation. Several farmer innovations emerged which included – use of rope markers for easy transplanting; manufacture of cono weeders by local artisans based on local needs, raising nurseries on waste cloth for easy transfer of seedlings to main plot, resource management in general like using residual moisture for green manure crops and incorporating the same for improving soil fertility and paddy yields. Interactive Farmer-Farmer sharing events like field days enabled scaling up the practice.

In promoting SRI, problems faced included raised soft bed nursery raising, uprooting and transplanting young seedlings, timely weeding and water management. There was a shortage of skilled labor to do these operations. Use of new implements like markers and conoweeders posed new challenges.

The field lessons, the deeper insights gained during the interaction with richly experienced and highly encouraging WWF team, visits and guidance by stalwarts, interactive workshops organized by the WWF team helped us to broaden our vision as well as understanding. The strategies adopted by AMEF in terms of durable capacity building processes for farmers in terms of PTD, training rural youth as Sustainable Agriculture Promoters who relentlessly and enthusiastically supported farming communities helped in achieving good results in the programme. These successful strategies have also been recognized by all those who visited the areas for reviews and impact assessment.

Challenges faced

- Farmers perception that transplanting young seedlings leads to mortality
- Non availability of weeders and markers in time
- Non availability of skilled labor for square planting
- Farmers fearing crab attacks in Kalghatagi taluk if single seedlings are transplanted
- Water management difficult where irrigation source is canals or dams as in TN
- Square planting in Karnataka with farmers preferring Rope markers

3.5 Promoting Agro-biodiversity

Supported by UNDP-GEF programme on the theme biodiversity, AMEF implemented a two year project in Magadi, Karnataka in guiding farming communities to generate and access local seed varieties of major crops of the region by conserving local seeds and establishing a seed bank. The focus was not only on seed conservation but also on promotion of sustainable agriculture practices for improved yields and reduced costs and enlarging the basket of farm related livelihood options.

Mrs. Bhagyamma & Mr.Ganga Maranna, conserving Kempu Ragi, traditional variety

The project was implemented in two villages in Magadi taluk in Karnataka based on participatory approaches.

Farmers were organized into 3 farmers groups. In total 65,farmers were organized into 3 farmers groups which included 38 men as well as 27 women farmers, from 2 villages of the project area. The members regularly met once in a week. The meetings served as a platform for creating awareness on preserving biodiversity, establishing seed bank as well as promoting eco-friendly sustainable agriculture practices.

To have stronger cohesion as a group, the members started savings habit. They gradually increased their savings and the present cumulative savings and group fund is around Rs.94,000. The members

have started internal lending among the members for supporting various farm based livelihood activities.

Regular meetings are organized with the farmers groups to build awareness on the biodiversity based farming systems. To effectively do it, a community level organizer in Magadi is placed who is conducting weekly meetings as well as creating linkages with the line departments for the benefit of the groups.

Seed Conservation

In order to improve the understanding of the farmers on conservation, they went on a study tour to established community seed savers groups and seed banks. Farmers took up activities of conserving the lost traditional seeds of ragi which they loved to grow and eat, but lost now.

The seeds of the traditional varieties were traced and the seeds of the same variety were procured from various community seed banks. The farmers now have saved the following traditional ragi variety in their seed banks.

- Karikaddiragi,
- Iyanaragi,
- Pichhakaddiragi
- Hasirubundga ragi

Apart from this, farmers tried out conserving paddy seeds and multiplying traditional varieties grown earlier. The seeds of Doddi bhatta, Byrnellu are being grown and stored in the seed bank. The 3 farmers groups have joined their hands and have initiated the **Savandurga Community seed bank** with the main focus to conserve the traditional land races.

Kitchen garden activity was initiated with farmers from 2 villages. The main purpose was to educate the farmers to grow vegetables in their back yard as well as spaces available with them for cultivation. Seeds of different crops were procured from Indian Institute of Horticulture, Bangalore. Nearly 15 varieties of open pollinated vegetables/greens and traditional variety seeds procured from seed banks were distributed to farmers to take up this activity. The harvest was being used by the farmers for their own consumption and they have seeds for further multiplication and distribution.

The farmers group has promoted Savandurga Seed Savers Association. The association has been able to mobilize the land from the panchayth for building the seed bank. The seed bank building will serve as information office for the farmers of entire Magadi block. The construction of the building is in process and will be completed by March 2012.

Crop productivity improvement

Farmers were guided on sustainable agriculture practices in Ragi based farming systems. The trainings included practices relating to on-farm rain water management, soil fertility improvement and good cropping practices, to be followed in combination. Twelve members visited Mr.Rangswamy farm of Horahalli Taluk of Ramanagar District and learnt about integrated farming systems.

The farmers tried out the following SA practices like fall ploughing, cultivation across the slope, dead furrows, green manuring, seed treatment with local materials, use of good quality seeds(MR-, MR-6 and GPU-28), line sowing, mixed cropping and inter cropping.

Promotion of SA was taken up by 40 farmers. Arrangements were made to mobilize good quality traditional Ragi varieties like karikaddiragi, Giddaragi from the community seed bank of Marlwadi area and vegetable seeds from gene bank of Sahaja Samurdha, Bangalore. For the promotion of sustainable agriculture practices in Ragi based farming system, good quality seeds like MR-1 were procured from University of Agricultural sciences, Mandya along with the bio inputs from private firms.

Yield increases of 18-27% were observed in the farmer's field who had taken up the adoption of combination of SA practices. Farmers found that by adopting green manuring and using good quality seeds, one can increase the ragi yield by more than 25%.

The farmer groups have been trained and guided to practice organic method of cultivation through trainings as well as exposure visit to various organic outlets.

Improved biodiversity on farmlands

Efforts to build the off farm environment support through Biomass nursery activity was taken up. Around 45 farmers were trained on nursery raising techniques. Thirteen members have taken up the nursery raising activity for various purposes. They have sown the seeds of glyricida, cassia siamea for biomass purposes, Drum stick as vegetable and subabul and sesbania for fodder purpose. Apart from this, 5 farmers have taken up field bund planting with glyricidia which is serving as green manure crop.

Members of the farmers group were trained by AME team members on the low carbon lifestyles as a part of creating 'green citizens'. Farmers along with their families and students took up planting trees. The required planting material was mobilized from the Department of Watershed. Nearly 805 silver oak, 222 Amla and 208 mango saplings were mobilized and planted as part of Common Wealth Games event.

Income generation activities

Additional income generation activities have been taken up by 39 farmers. The members of the farmers group were trained on poultry management aspects. The services of Dr.Murali Krishna working in Department of Animal Husbandry were made use of in training the farmers. Farmers have taken up PTD trials in poultry to compare the yields as well as advantages of native breeds v/s improved breeds. The non availability of chicks of improved birds delayed the activity for some time.

Two days training on Apiary was conducted in Guddahalli village of the project area. The Department of Agriculture has sponsored the training under ATMA programme. Fifteen farmers have made use of the programme.

Seventeen farmers from Ukkada and Guddahalli villages have constructed vermicompost units with the financial support from the Department of Agriculture, Magadi.

Linkages with the Department of Agriculture have been strengthened with Assistant Director of Agriculture having direct contact with the group members. Nearly 1.7 lakhs can be seen as co-finance so far from different sources under the project during the reporting period.

3.6 The Growing connection

In June 2010 'The Growing Connection' (TGC), a project promoting urban home gardens was initiated by AMEF with the support of FAO, Washington. The Growing Connection links people and cultures in a revolutionary campaign that introduces low-cost water efficient and sustainable food growing innovations based on Earth Boxes. Earth Box is highly water efficient gardening system which uses 60% less water as compared to drip system. These boxes can be used virtually in any setting.

Vegetables are grown in earth boxes on the rooftop

The study being conducted as part of the project in Phase I focuses on testing its use in local conditions while trying out possible other options in terms of growing media. In this connection, on request by FAO, as part of the programme, AMEF conducted PTD trials over a period of six months (June –November 2010).

The study mainly aimed at comparing combination of various growing mediums within the supplied Earth Boxes. Further, it was also designed to facilitate comparison between supplied Earth Boxes and local Earth Boxes. Thus, the entire study comprised of 4 types of treatments. Details of combination of growing mediums in different treatments including use of Local box were tried out.

The trials were conducted on five vegetable crops viz; Beans, Greens/Palak, Brinjal, Tomato and Chillies which are commonly consumed in and around Bangalore. The seeds of the beans were sown directly; dibbling method was used for Palak sowing. In case of Tomato, Brinjal and Chilies, nurseries were raised and later transplanted to the Earth Boxes.

Local variety seeds were used in all the trials. This was mainly because common people like the taste of the local varieties and for they being less susceptible for pest and disease attack. In fact no chemicals, pesticides or Plant Protection measures were used in the whole experiment - thus, reinforcing the possibility of promoting organic vegetable cultivation.

The Earth Boxes that were used in PTD trials, conducted on behalf of TGC, have the following advantages as observed during the trials.

- In the very first place, the supplied boxes help in saving water apart from saving labour. Watering can be done once in 3 days as against daily watering in case of other boxes.
- Can support any local growing media effectively.
- Being light in weight, they provide easy portability which is prime requirement for terrace gardening
- Lastly – they are compact and easy to handle.

However, modifications were suggested to make them more suitable

- Provide rods on the sides that facilitate protecting plants, in the boxes, from insects by spreading nets across. This would also help in growing creepers which has been tried out elsewhere.
- It is necessary to device a technique to effectively avert draining out of nutrition in monsoon, especially during heavy rainfall. Nutrition loss due to rainfall in spite of plastic cover protection. This is due to water seepage happening through holes in the plastic cover which is provided to enable plants to emerge.
- Using of local material for mulching rather than plastic cover as it creates better growing conditions in terms of better management of temperature and humidity.

These changes were suggested to further improve the utility of the Earth Box as credible option for promoting urban gardening.

3.7 Introducing forage innovations to improve farm income of woman dairy farmers of Tamil Nadu

Lack of knowledge on various kinds of fodder varieties, access and farming skills are some of the major limiting factors. Farm women regularly are forced to depend on external sources like private retailer, green fodder seller and local market for knowledge as well as supplies of feed including roughages and concentrates. The project supported by DST was implemented in 6 villages in Tiruchi and Perambalur district in Tami Nadu to address this situation.

Growing Co4 grass for fodder purpose

Establishing fodder banks

PRAs were conducted in all the six villages. Once the data collection, village finalization and group formation was over, the input planning meetings were held at each group level in their villages. In the meetings, participatory planning on fodder seeds and slips to be sourced and planted in fields was discussed.

As planned in meetings, most of inputs containing fodder slips and seeds were distributed to the farmers prior to South West monsoon. These included Cumbu Napier (Co-4 slips), CoFs-29, Sudan sorghum (multicut fodder sorghum), Desmanthus, Muyal masal, Azolla kits etc.

These were sown/planted in fields during June-July 2010 by 20-30% of farmers. As there was insufficient rainfall, remaining farmers took up planting operation in North East monsoon (Oct-Nov 2010) period.

Group level trainings and demonstrations were conducted on a weekly basis at their farms. Each farmer has cultivated sudan sorghum fodder varieties in 50 cents. They could harvest 20kgs of green

fodder and feed it to milch animal every day. The CO Fs -29 also has been established well, serving as a good fodder base.

About 80-90% farmers have been cultivating azolla successfully. Most of them have reported on the betterment of milk yield from their animals with additional quantity of 250-500ml/day, and the SNF content also increased considerably which in turn fetched better market rates too.

The trainings on Sudan sorghum cultivation covered detailed information on its cultivation aspects, seed rate of 5-10kgs/acre, seed treatment practice using biofertilizer and its advantage, expected yield, feeding pattern to animals etc..

Out of 175 farmers supplied with Cumbu Napier hybrid slips, all of them took up cultivation in an area of 8-10 cents each by adopting spacing of 30x30cm and 45x45cm. The crop has established well and yielded green fodder on the 60th day itself. Farmers felt extremely happy to harvest the same and feed to animals.

Velimasal being a protein rich source of fodder crop, farmers took it up for the first time after the training. The training covered discussion on seed rate, seed treatment practices, main field preparation, intercropping Co4, nutritional benefits, harvesting, feeding to animals etc.. Being a perennial crop, farmers came forward to grow it in their farm with interest.

Trainings on use of azolla were organized which included various steps such as pit making, adding fresh cow dung, soil, water, DAP, Azola inoculum etc.. Since the procedural steps were very easy, farmers could understand easily. Moreover, after understanding the advantages of feeding azolla to dairy animals like increase in milk yields, health improvements and feed cost reductions, the farmers were enthused to adopt the technology immediately.

About 80-90% farmers have been cultivating azolla successfully. Most of them have reported on the betterment of milk yield from their animals with additional quantity of 250-500ml/day, and the SNF content also increased considerably which in turn fetched better market rates too.

Use of Chaff cutter (Fodder cutting Machine)

Promotion of Chaff cutter machine is another parallel activity taken up that triggered deep involvement of farmers. In each village of the six villages, one machine was provided. These were preceded by formal meetings with the respective group members. As per decision taken in the meetings, a common place was finalized and the machines were kept for utilization by the members.

Demonstrations in each village were conducted on the operational aspects of machine, the methods of feeding fodder into the machine, the advantage of feeding chaffed fodder to animals. The associated benefits, such as higher milk yield, lesser wastage, enhanced digestibility etc. were explained.

Malarkodi got deeply interested in Azolla cultivation. She fed her animals 300-500 gms of Azolla every day, two times a day. She observed significant improvement in milk yielding capacity of her milch animals. Within two cropping cycles of feeding azolla to her animals, she was convinced about its advantages. She has started explaining the advantages as well as methods of cultivating azolla to other farmers through her demonstration plot. She served as a resource person to train others in the village to upscale the technology.

Results

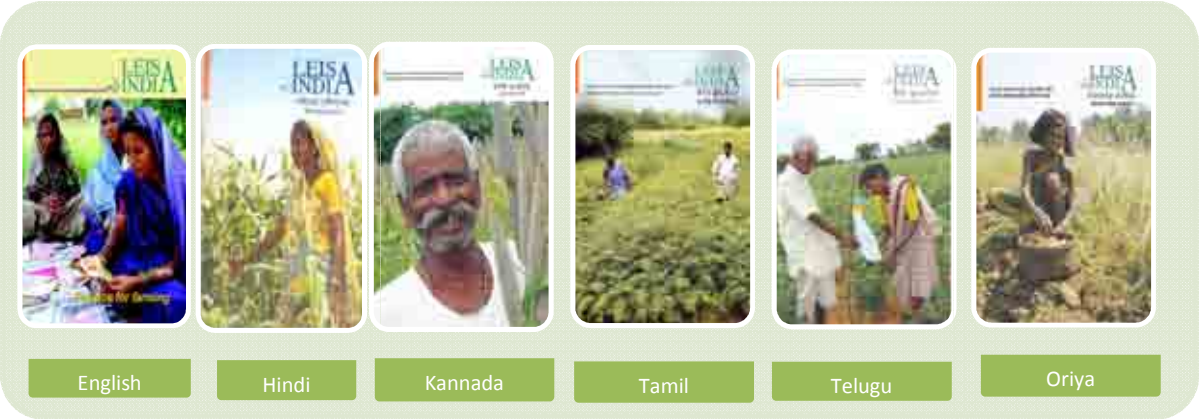
Though farmers initially hesitated to spare exclusive lands for fodder bank creation, the benefits that they obtained in due course encouraged them to spare sufficient lands. Women had not seen 80% of the fodder varieties. They now exist on their farm lands empowering them to harvest varieties of green fodders round the year.

Farm women have taken up cultivation of several green fodder varieties such as CO Fs29, CO4, Azolla, Velimasal, Muyal masal, agathi, subabul, fodder sorghum on their farms. During the first year, the cultivation of fodder and using it as animal feed has resulted in enhanced milk yield (300 to 750ml/animal/day), reduction of expenses (Rs.15-25/day/animal) etc, besides increased awareness and knowledge on their cultivation and nutritive aspects. Most importantly, they are able to stock propagation materials such as slips, seeds etc on their farm itself.

Fodder banks have been supporting farm women to reduce their external dependency, drudgery and expenditure (Rs.15-25/day) with improved income (Rs.600 to 1000/animal/month in terms of enhanced milk yield through azolla and green fodder intake by animals) to support their daily livelihoods. Especially farm women of this project feel most comfortable as they could harvest green fodder round the year on their farm itself.

3.8 LEISA India

LEISA magazine is recognized as the leading magazine for sharing field based experiences in **L**ow **E**xternal **I**nput and **S**ustainable **A**griculture. **LEISA India** is the regional Indian edition of Agricultures Network of the global LEISA magazines. LEISA India, is being published in English, in collaboration with ILEIA, Netherlands, 4 times in an year. To enlarge the outreach to the grassroots, in 2009, special translated editions were launched in Kannada, Hindi and Tamil. In 2010, two more language editions – Oriya and Telugu were launched.



Magazine Production

During this period, five issues of LEISA India magazine were produced – one of 2009 and three of 2010 and one of 2011.

V.11, no.4, December 2009 - Sustaining gains and Scaling up

V.11, no.1, March 2010 - Livestock for sustainable livelihoods

V.11, no.2, June 2010 - Finance for farming

V.11, no.3, September 2010 - Managing water for sustainable farming

V.12, No.1, March 2011 – Youth in Farming

The total number of subscribers as of December 2010 is **10797.** Of the total, 97% belong to the Indian subcontinent while 3% of the subscriptions reach outside India mainly to countries like Nepal, Bangladesh, Japan, Pakistan, Bhutan etc. In the last one year, there has been increase in the number of new subscriptions from South Asian countries. From 2% of the total over a long period of time it has increased to 3% this year. This may be due to increased linkages and networking owing to overseas assignments.

Across various categories, NGOs formed the major chunk with 26%, followed by individuals, academic and research institutions with 16%, 17% and 14% respectively. Around 7% of the readers are farmers. Around 3% of the readers are students.

A wall calendar for the year 2010 was produced and distributed to all the subscribers in the "Women and food sovereignty" issue.

Special Translated Editions

Three language editions– in Hindi, Kannada and Tamil were launched in 2009. The third and fourth issues of these three language editions were produced during this year. These special editions are primarily being targeted to reach grass root organisations like Farmer associations, CBOs and village level resource centers.

Two new special language editions in Telugu and Oriya are launched. In 2010, two new editions in Oriya and Telugu have been launched. The first edition of Telugu is being produced in collaboration with CDAC-Hyderabad. CDAC is a government institution working on dissemination of information on various development sectors (health, education, agriculture, livelihoods etc) in support is being provided by CDAC, layout, printing and distribution will be carried out by LEISA India team. The first issue includes selected translations of LEISA India articles published in the last five years.

The Oriya edition is being brought out in collaboration with an NGO called ORRISSA based in Bhubaneshwar, Orissa. ORRISSA is a partner of MISEREOR. LEISA India team while working on Misereor's assignment had explored possibilities of producing Oriya edition in collaboration with ORRISSA. ORRISSA has taken the responsibility of translation, layout and printing and distribution of the magazine. The first issue includes selected translations of LEISA India articles published in the last five years.

New web site launched - A new website has been designed and launched (www.leisaindia.org). The website is designed to host all the language editions which can be downloaded. A 'dynamic' component is built into the new website wherein people can share their LEISA experience, anecdotally and also subscribe to the magazine.

Documentation assignments taken up with MISEREOR, CARITAS

LEISA India team guided CARITAS India in bringing out a document on the "South Asia Farmers Conference". This assignment helped in building contacts and wider networking with their Asian partners.

LEISA India and ILEIA were jointly involved in helping MISEREOR partners in Bangladesh and India on their documentation aspects. Jorge, ILEIA and Radha are involved in guiding the documentation process of PLDP Document. In this assignment the following activities were carried out.

- Guiding partners in documentation of PLA experience. Articles on the experiences of the different partner organisations with PLA were prepared by consultations and discussions with partners.
- Coordinated with all the partners over a period of time (Jan to August 2010) in helping them articulate their experiences.

- A field visit was made during the reporting period to Rajasthan to help KRAPAVIS, a partner of MISEREOR to document their experiences on PLA
- Articles that reflect different dimensions were selected to include in the publication depending on the diversity of the topics. An article from MISEREOR and Masipag were also included.
- All the articles (11 in all) were edited, rewritten and reoriented wherever necessary.
- Coordinated the layout and designing of the document
- 1000 copies of the 56 page document were printed.

Voluntary contributions reaches 2.5 lakh Indian Rupee mark

There has been a very good response from the readers for our request to voluntary contributions. We have received more than 2.5 lakh Rupees during the reporting period. Systems were designed and are being maintained for receiving the contributions. All the contributors are being sent official receipts. A separate account has been created for these contributions. We want to make the process transparent by sharing the list of contributors with our readers through an insert in the next issue.

Lessons Learnt

- Involving consortium partners in bringing out translated editions has been a very rewarding strategy - in production, selection of content as well as reaching the right readers.
- Goodwill and relationships with individuals and organisations have enabled expansion of the programme (to Telugu and Oriya) much more smoothly than expected.
- The space and freedom that partners are enjoying in bringing out language editions is reflected in their increasing sense of ownership of the product. Partners are putting all their efforts in keeping up the quality and reputation of LEISA India and also striving to raise resources on their own, in a small way, for sustainability.

4. OTHER INITIATIVES

Training urban citizens in growing healthy food on roof tops

AMEF's journey towards promoting peri-urban and urban horticulture practices started in the year 2006. In 2008, as a pilot project, AMEF promoted home gardens in selected residential associations in Bangalore. Building on the experience on the pilot project, AMEF started offering training on Home Gardens to the interested citizens. Around 14 trainings have been conducted so far and a total of 226 citizens have been trained. Also, a model terrace garden has been developed on the rooftop of AMEF premises which serves as a demo site for the training programmes. Terrace garden training was also organized for the residents for Hubli/Dharwad. Dr. Vishwanath was the resource person. Forty three residents attended the workshop at DF hubli.

Training support to Government programmes - *adding value to Farm Schools*

The success of the Farm School conducted by AMEF in Dharmapuri district in 2008 resulted in AMEF getting recognition as a resource agency for Farm Schools in Tamil Nadu. As a result, AMEF was invited to organize Farm Schools in several districts - Tiruchi, Krishnagiri, Ariyalur, Namakkal and Salem.

AMEF added value to the curriculum of Farm Schools. AMEF included some of the basic principles of FFS in the curriculum to make it more participatory. Further, it also included sharing workshops to facilitate scaling up of the technology. During April-June 2010, five farm schools were organized in Tiruchi district, one in Dharmapuri district, four in Namakkal district and three in Ariyalur district. The farm schools covered wide range of topics including crops like SRI paddy, banana, onion, chillies, green gram, groundnut and farm enterprises like fisheries, dairy and sericulture.

The three farm schools which were completed in Tiruchi had one Front Line Demonstration each. These Front Line Demonstrations on desi bird rearing, tube rose cultivation and black gram cultivation yielded interesting results. For instance, the chick of desi bird which was 35-50 grams weighed 1.5 kgs within two months. Similarly, the yield of black gram was 15% higher than the conventional method (1475 kg/acre). The results of FLDs were shared during the valedictory function held at the end of each farm school. Mr.S.Shivaraj, DDA, Mr.Ponnusami, JDA, Dr.P.I.Ganeshan, Professor & Head, VUTRC, Mr. Rajasekar, ADA and Dr. Kathiresan, Dean, Anbil Tharmalingam Agriculure College and Research Institute were the special guests in the valedictory function held in Tiruchi.

Training support to SDTT Partners in Maharashtra and Madhya Pradesh

Two 3-day training events on FFS were organized to 12 partners of SDTT from Maharashtra and Madhya Pradesh. The main focus was on the FFS methodology, facilitation skills and field visit to a Mock FFS session at Hulukoppa village on Paddy cropping system.

Agriculture module to the Deshpande Foundation fellows

The agriculture module was dealt by the Dharwad Unit for the Fellows of Deshpande Foundation for a period of three days. The main focus was on the Present day Agriculture Scenario, Problems and

Opportunities in dry farming, FFS methodology, facilitation skills through short studies, group discussion etc.

Training support to the staff of State Departments

A training programme on FFS was organised for the Assistant Directors and Joint Directors of the State Departments in Agriculture, Horticulture, Sericulture, Fisheries etc Departments of 13 different states at the Staff training Unit, GKVK Bangalore.

5. DOCUMENTATION AND DISSEMINATION

Documentation and Dissemination (D & D) activity is aimed at building knowledge processes, which ultimately result in enhanced sharing of knowledge on alternatives for practitioners, enhanced pool of experiences and learnings for enabling agencies to guide practitioners, get the attention of policy makers to alternatives, which are working. While Documentation and Dissemination enables wider sharing of these experiences in public domain, the activity is crucial for strengthening organization's own learning processes.

Newsletter

AME Info: The quarterly newsletter was produced which was distributed to selected people interested in AMEF's activities. During the year 2010-11, three issues of AME Info (April – June 2010, July – September 2010 and October – December 2010) were produced.

Documents

LEISA India team in collaboration with CARITAS India brought a document on **"South Asia Farmers Conference".**

LEISA India team in collaboration with ILEIA and MISEREOR brought out a document on **"Strengthening People led Development"**

Articles

Sangeetha Patil, **"Upscaling an innovative practice in rainfed paddy cultivation"**, LEISA India, Volume 11, No. 4, December, 2009.

B V Joshi and K V S Prasad, **"Building social capital by investing in rural youth",** LEISA India, Vol 13, No.1, March 2011.

Handouts for wider awareness

Handouts (Guidelines) on SRI method of cultivation for Ragi and Red gram cultivation in Kannada

Handout on SSI (System of Sugarcane Intensification) by Dharawad unit

Handout on Integrated pest and disease management in SRI paddy

Fact sheets

Fact sheet on SCI in Red gram

SRI-Fact sheet

Others

Video documentation of the successful SRI farmers - by Deshpande foundation

SRI farmers profiles documented

6. STAFF PARTICIPATION IN WORKSHOPS

AMEF team participated in the learning workshop at Hosur on 11th to 13th August 2010, which was organized jointly by Wageningen University and TNAU, where the team shared AMEF experience on the following: Farmer's response for SRI adoption; How SRI spread; Constraints in SRI adoption; Future scope for SRI etc

AME staff participated in the workshop on "South Indian peoples Tribunal on Livelihood and Climate change" at Ananthapur on 22nd October 2010, which was organized by RDT. Adaptive strategies of SRI Ragi and SRI Red gram were highlighted.

Dharwad team participated in Agriculture Partners Meet, organized by Deshpande Foundation, Hubli. The SRI experience in Rainfed area was shared with all partners

Mr. K V S Prasad, Mr. B V Joshi and Ms. Sangeeta Patil participated in Consortium Meeting organized by BAIF at Surashettikoppa to discuss about the NREGA project with SDTT on 7 April 2010.

Mr. K V S Prasad and Mr. B V Joshi participated in WWF Partners Meet at Hyderabad on 8 April 2010.

Mr. B V Joshi, Mr. Mallikarjun Patil and Ms.Sangeeta Patil were the resource persons in the Fellowship Training on Agriculture organized by Deshpande Foundation during 19 - 20 April 2010.

Mr. KVS Prasad and Ms. Sangeeta Patil participated in Deshpande Foundation Board Members Meeting on 10 June 2010 at Tejas India Ltd, Bangalore. Prasad shared AMEF's experience on SRI programme in Dharwad district.

Ms. Sangeeta Patil participated in two training programmes on Training on Achievement Motivation organized by Deshpande Foundation in the month of June 2010 at Hubli.

Mr. B V Joshi and Mr. Balakrishnamurthy participated in Krishimahotsava organized by Department of Agriculture – one in Bangarpet during 20 - 22 June and another at Chikkaballapur during 25 - 27 June. AMEF stall on Sustainable Agriculture in the exhibition attracted more than 1000 farmers.

Ms. Sangeeta Patil and Mr. Mallikarjun participated in Sharing and Learning Review meeting organized by Deshpande Foundation on 25 June 2010. Other agriculture partners of Deshpande Foundation also participated.

Ms. Sangeeta Patil and Mr. Joshi participated in a SRI Workshop organized in Hosur, Tamil Nadu. Participants from Madagascar WWF Xavier Management Institute, WASSAN, SDDT and from other parts of India shared their SRI experience. The Workshop was organized by Tamil Nadu Agricultural University.

Mr. B.V.Joshi and Ms. Sangeeta Patil attended a National Seminar on SRI at Coimbatore during 11 to 13 August 2010. SRI experiences across the country were shared by the participants. The

workshop was organized by Tamil Nadu Agricultural University.

AMEF exhibited its activities in the Magadi Taluk Krishi Utsav. The stall featured LEISA activities along with the conservation of traditional seeds. The Krishi Utsav was organized by the Department of Agriculture on 10th July 2010. Nearly 2000 farmers of Magadi Taluk visited Krishi Utsav. Dr. Dwarakinath, Chairman, AME Foundation addressed the gathering by highlighting on the dry land problems and the ways of addressing them by SA promotion activities.

Mr. Ranganatha Babu attended the training programme on Bio digester unit at Kanyakumari on 25 September 2010.The event was organized by Vivekananda Kendra. Nearly 30 members participated in the programme. AME Foundation has planned to install one bio digester unit which runs on kitchen wastes, in Ukkada village in Magadi.

Mr. Ranganatha Babu attended the training programme on Low carbon Practices at Bangalore on 9th Aug 2010. The training was organized by GEFCEE. Tool kits to train school children were provided during the training.

KVS Prasad, BV Joshi, Sangeetha and Ravi Kumar participated in the 'National Workshop on SRI in India- stock taking and future directions in the context of food security and climate change'. The Workshop was organized by WWF - ICRISAT, Hyderabad, during 20- 22 December 2010 to enable sharing and learning on SRI from different parts of the world.

Ms. Sangeeta Patil participated in the Workshop on Small holder poultry rearing – a sustainable livelihood opportunity for the rural poor at the UNDP Conference Hall in New Delhi.

Mr. B V Joshi, presented a paper on The methods for coping up with rainfall variability in finger millet crop in the workshop on Peoples Tribunal on Livelihoods and Climate Change. The workshop held in Anantapur on 22 October 2010 at Anantapur, discussed the impacts of climate change on livelihood and ways of coping with it.

Mr. Ravi Kumar participated in the workshop on "Micro planning for adaptation of innovations in micro irrigation techniques in rural holdings" at Tiruchi on the 23rd December 2010.

Editors of regional editions of LEISA across the globe met in the Netherlands during the International Editors Meeting during December 2010. They discussed about the strategies for the sustainability of the LEISA magazines as well as the Agricultures Network. Mr. KVS Prasad represented LEISA India team.

7.VISITORS

Dr.T.M.Thiagarajan interacting with farmers during his visit to SRI field in Kadiri.

Dr.T.M.Thiagarajan, former Dean of TNAU and Consultant, WWF visited SRI plots at Kadiri block of Andhra Pradesh, Kolar and Dharwad areas of Karnataka

The scientists' team from Academy of Karnataka Science and technology visited the SRI Paddy, Ragi and Red gram plots and interacted with farmers about their response for innovative methods of cultivation

Executive Director and staff from WALMI institute, Dharwad visited the SRI plots in Dharwad and Kalaghatagi taluks

NABARD AGM and Scientists from UAS, Bangalore have expressed their appreciation for the SRI Red gram and SRI Ragi practices followed by farmers in Balamande and Boyilur village of Kolar district

Students of California, as a part of their study tour, sponsored by DF, had visited SRI plots in Dharwad area

Joint Director of Agriculture (JDA) and DOA faculty visited the Kolar and Kadiri areas.

Groups of Farmers from Krishnagiri district, Tamil Nadu and Ananthapur of Andhra Pradesh have visited the Balamande, DP halli and Bodapatti villages to view SRI in paddy, Ragi and Red gram plots during the study tour organized by AMEF.

Mr.Nishith Acharya, ED visited Nyasargi village & interacted with the farmers, visited the SRI plot & SRI information centre.

DF global exchange fellows from DF visited Kallapur village & stayed there for a day to learn the Rural life.

Hubli champions visited Kurdikeri village & interacted with the FFS group farmers followed by a field visit to tomato FFS plot on 23rd Jan 2011.

Delegates from various parts of the world, who had come for Development Dialogue visited Hulukoppa village and learnt about SRI methodology & interacted with farmers.

Two farmers from Philippines visited the SRI villages, interacted with the farmers and also shared their experiences of SRI.

Dr. Venkatesh Tagat, CGM NABARD & Mr. Mahadevaiah, AGM NABARD, visited the project area on 28.10.10, had interaction with the farmers of the FFS groups (Dharwad).

A group of volunteers from Deshpande Centre for Social Entrepreneurship, called as 'Hubli Champions' visited Kallapur and Ramapura villages on 6 June 2010. They observed the ongoing AMEF activities in the field and discussed with farmers about SRI in paddy and sugarcane.

A team of 25 Deshpande Foundation Fellowship trainees visited Kallapur village on 21 May 2010 to understand about the FFS process.

Dr. T.M. Thiagarajan from WWF along with former Dean of TNAU visited SRI fields of DP halli, Yerrragolu, Boyilur and Balamande villages of Chintamani. and interacted with the farmers. He appreciated the interventions by AMEF and suggested to take up square planting.

Senior staff of NABARD visited DP halli, Boyilur and Balamande villages of Chintamani and interacted with the farmers. They were impressed by the performance of AMEF staff in those villages.

DF Hubli champions visited Gangigatti village on 8 August 2010 and learnt about SRI cultivation. Dr. T.M Thiagarajan WWF consultant interacted with the farmers in Ganjigatti, Malakinakoppa, Biruvalli, Hulakoppa, Kallapur and Ramapur villages during his visit to Dharwad Unit.

As part of their village stay programme, 6 RAWE students from Agricultural college and Research Institute, Tiruchi, visited SRI promoted villages in Dharmapuri and Krishnagiri districts. The students were convinced of SRI as an approach to manage production issues in rice.

Students of Home Science College, Dharwad visited SRI fields at Kallapur village on 16 September, 2010.

Mr. Jayaprakash Samudre, AGM NABARD, Kolar visited Balamande, Boyilur and DP halli and interacted with farmers.

A team of scientists from KSA and UAS along with Mr. Jayaprakash Samudre, AGM NABARD, Kolar visited DP halli, Yerragolu, Boyilur and Balamande on 14 October 2010. They observed the SRI practices in paddy, ragi and red gram and interacted with the farmers.

WALMI Staff visited Ramapur village in Dharwad district to observe the sugarcane crop grown with the principles of Sustainable Sugarcane Initiative. They observed crop productivity and profit variation compared to traditional method of sugarcane cultivation.

Mr. Nishith Acharya, Executive Director, Deshpande Foundation visited SRI paddy fields at Nyasargi village. He interacted with the farmers to know about the difference SRI made with regard to yield.

Dr. Venkatesh Tagat, CGM, NABARD visited Inamveerapur and interacted with the farmer club members. He appreciated the efforts made by AMEF in organizing farmer groups and promoting LEISA practices.

1. STAFF

Sl. No.	Name	Designation	Date of Relief
Bangalore			
1	Prasad K V S	Chief Editor & Executive Director	-
2	Radha T M	Managing Editor-LEISA India	-
3	Joshi B V	CPO-Program Coordn	-
4	Asha R	Secretary - General	-
5	Shobha Maiya	Secretary - Information & Doc.	-
6	Vijayalakshmi S	Secretary - Accounts	-
7	Ramu K	Driver	31.12.2010
8	Gopalakrishnan R	Driver	-
9	Chikkanna	Attendant	-
Dharwad			
10	Sangeeta R Patil	Area Unit Co-ordinator	-
11	Mallikarjun R Patil	APO-IFS/NRM	31.12.2010
12	Prasanna V	Secretary cum Accountant	-
13	Virupaksha Kelur	Driver	31.12.2010
14	Dyapur	Attendant	-

Consultants and Contractual Staff			
1	Poornima K M	CU	03.02.2011
2	Ranganatha Babu	CU	-
3	Karibasappa A K	CU	-
4	Poornima	CU	-
5	Dr Krishne Gowda K T	CU	-
6	Nalini M	CU	30.09.2010
7	Keshava Murthy	CU	31.03.2011
8	Murthy N	CU	-
9	Dr Vishwanath B N	CU	-
10	Nataraj S R	CU	31.08.2010
11	Archana K	CU	21.09.2010
12	Arunkumar V	CU	-
13	Shivappa,	CU	-
14	Manohar Badigar	Dharwad	-
15	Mayachari A	Dharwad	-
16	Nagaraj G H	Dharwad	31.03.2011
17	Mahesh S Hanchinamani	Dharwad	-
18	Poornima R	Dharwad	19.01.2011
19	Noor Nawaz A S	Dharwad	

20	Manjunath B	Dharwad	-
21	Ravikumar G	Tiruchi	05.03.2011
22	Krishnan J	Tiruchi	-
23	Samson G	Tiruchi	21.12.2010
24	Prasath K	Tiruchi	-
25	Charles V A	Tiruchi	-
26	Balaraman G	Tiruchi	-
27	Jawahar Krishnaraj	Tiruchi	-
28	Narendra P	Anantapur	-
29	Srinivasa Gowda R G	Chintamani	30.09.2010
30	Ramesh Kumar	Chintamani	-
31	Balakrishna Murthy M R	Bangarpet	-
32	Krishnamurthy B M	Bangarpet	-
33	Lakshman Rao V	Bangarpet	-
34	Venkateshappa C	Bangarpet	-
35	Ingole P S L	Bangarpet	31.01.2011
36	Prasanna Kumar B P	Bangarpet	-
37	Narayana Rao P M	Bangarpet	-

AME FOUNDATION : BANGALORE

BALANCE SHEET AS AT MARCH 31, 2011

LIABILITIES	SCHEDULE	Rs. P.	ASSETS	SCHEDULE	Rs. P.
FUNDS	1	23,496,763.35	FIXED ASSETS	3	11,581,459.86
CURRENT LIABILITIES & PROVISIONS	2		CURRENT ASSETS, LOANS & ADVANCES	4	
Sundry Creditors			Cash on Hand		4,335.00
			Cash at Banks		16,288,396.39
For Expenses		199,036.00	Deposits		100,066.00
For Others		260,000.00	Advances		534,491.90
Unutilised Grants		4,076,130.80			
Provisions		476,819.00			
		28,508,749.15			28,508,749.15

For AME FOUNDATION

CHAIRMAN

For AME FOUNDATION

TREASURER

PLACE : BANGALORE
DATE : 08.07.2011

As per our report of Even Date
For RAJAGOPAL & BADRI NARAYANAN
Chartered Accountants

M.S. Rajagopal

Partner
M.No.020244
Firm No.003024S

AME FOUNDATION : BANGALORE

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED MARCH 31, 2011

EXPENDITURE	Rs P.	INCOME	Rs P.
To Support to NGO & Network for SA	443,795.00	By Grants Utilised	15,008,126.00
* Input for SA Promotion	1,189,474.00	* Donations	113,320.00
* Capacity Building of Farmers	2,563,901.76	* Sale of Books	8,318.00
* Distribution Costs	704,038.18	* Educational Training / Resource Fee / Institutional costs recovered	2,177,467.27
* Core Group Meetings	28,150.00	* Rent Received	445,944.00
* Magazine Expenses	1,650,280.00	* Interest from Bank	583,138.33
* Salaries & Provident Fund	4,080,605.00	* Interest from Income Tax Refund	14,700.00
* Travelling Expenses	909,869.52	* Miscelleneous Income	29,344.86
* Postage & Courier	93,070.00	* Depreciation	670,623.98
* Rent, Electricity, Insurance & Water Charges	115,515.00		
* Printing & stationery	55,361.00		
* Telephone / Internet Expenses	141,499.37		
* Consultancy Fee	1,867,052.94		
* Public Relations - PR Products	19,710.00		
* Meeting Expenses	158,057.00		
* Payment to Auditors	55,193.00		
* Security Charges	133,738.00		
* Repairs & Maintenance			
- Vehicles	252,359.00		
- Equipment, Computer & other Assets	236,940.00		
* Rent & Property Tax	250,046.00		
Carried forward	14,948,654.77	*Carried forward*	19,050,982.44

EXPENDITURE	Rs. P.	INCOME	Rs. P.
Brought forward	14,948,654.77	*Brought forward*	19,050,982.44
To Office Expenses	169,333.00		
" Loss on Assets	2,428.00		
" Bank Charges	8,233.43		
" Rates & Taxes	6,015.00		
" Depreciation	670,623.98		
" Excess of Income Over Expenditure for the year	3,245,694.26		
	19,050,982.44		19,050,982.44

For AME FOUNDATION

CHAIRMAN

For AME FOUNDATION

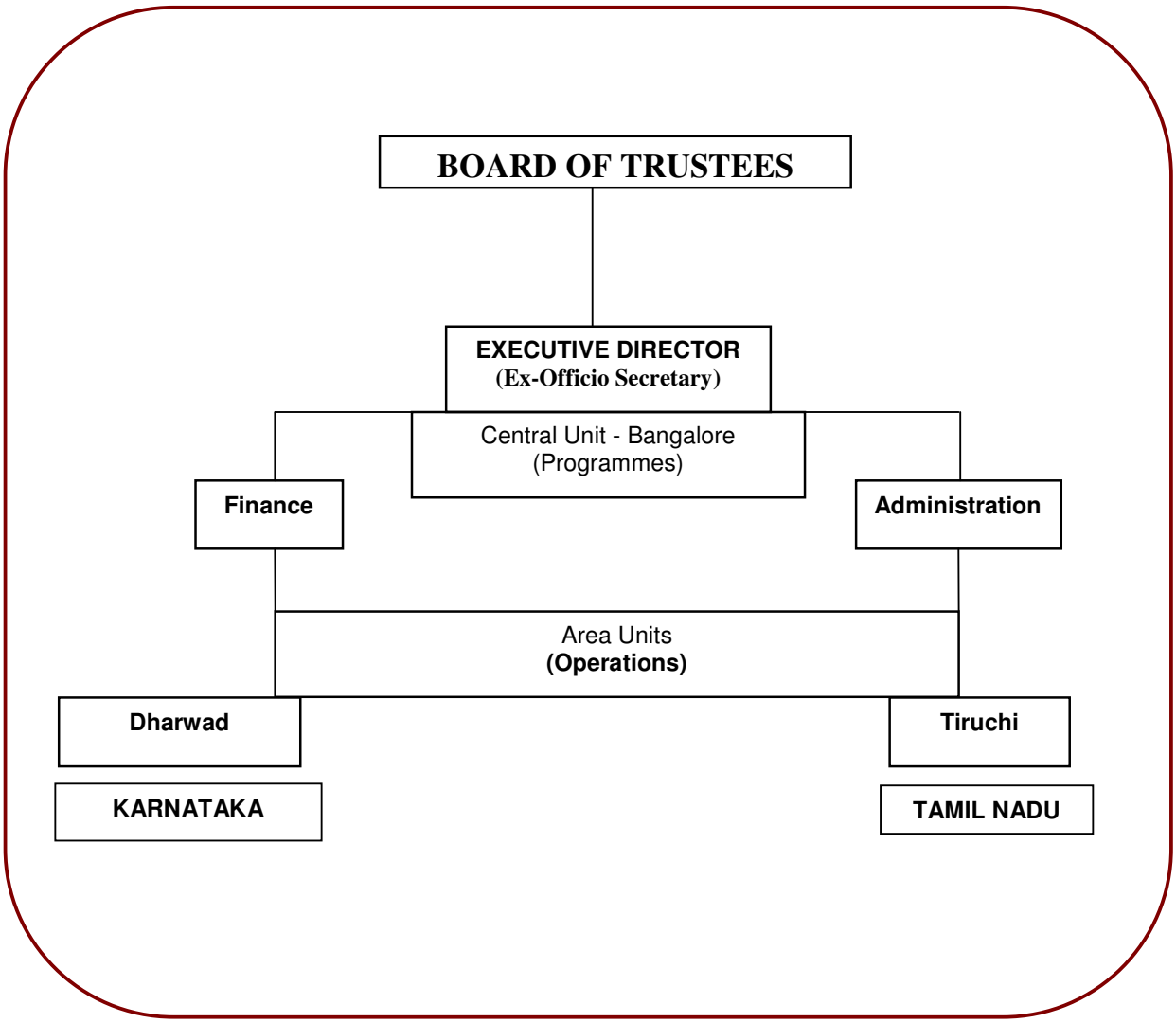
TREASURER

As per our report of Even Date
For RAJAGOPAL & BADRI NARAYANAN
Chartered Accountants

Partner
M.No.020244
Firm No.003024S

PLACE : BANGALORE
DATE : 08.07.2011

3.ORGANOGRAM OF AME FOUNDATION



4. AMEF OPERATIONAL AREAS

Central Unit

No. 204, 100 Feet Ring Road, 3rd Phase, Banashankari 2nd Block, 3rd stage, Bangalore – 560 085
Ph: 080-26699512, 26699522, 26794922, Fax: 080-26699410
Email: amebang@giasbg01.vsnl.net.in; amefbang@amefound.org / amefbang@yahoo.co.in; leisaindia@yahoo.co.in
Website: www.amefound.org; www.leisaindia.org

Area Units

TIRUCHI
No.37, E.V.R.Road, K.K.Nagar,
Tiruchirapalli – 620 021, Tamil Nadu
Ph: 0431 2459913
ametrichy@hotmail.com

DHARWAD
No.39, 1st Main, 2nd Cross
Behind Shri Ramakrishna Ashram
Channabasaveswar Nagar (C.B.Nagar)
Dharwad 580 007
Ph: 0836 –2472822
ame_foundation@yahoo.com

Other operational areas: Bangarpet, Magadi, Tiruchi

5. BOARD OF TRUSTEES

Dr. R. Dwarakinath, Chairman
Former Chairman, Karnataka Agriculture Commission,
Former Vice Chancellor, UAS, Bangalore

Shri S. L. Srinivas, Treasurer
Former Financial Controller, CARE -India

Dr. Vithal Rajan
Chairman, Governing Body, Confederation of Voluntary Associations, Hyderabad

Padmashri Dr. M. Mahadevappa
Advisor, JSS Rural Development Foundation, Mysore,
Member, ICAR Governing Body, New Delhi, Former Vice Chancellor, UAS, Dharwad and Former Chairman, ASRB

Dr. K. Shivashankar – Until 23.07.2010
Former Professor of Agronomy and Forestry, UAS, Bangalore

Dr. N. K. Sanghi
Adviser - Watershed Support Services and Activities Network (WASSAN)

Dr. N. G. Hegde
Trustee and Principal Adviser
BAIF Development Research Foundation

Dr. Lalitha Iyer - **Until 29.03.2011**
Senior consultant,
M/s Thinksoft consultants Pvt. Ltd, , Hyderabad

Dr. V. N. Salimath – Until 10.11.2010
Managing Trustee
Initiatives for Development Foundation (IDF), Bangalore

Dr. T. M. Thiyagarajan
Former Director / Dean, Tamil Nadu Agricultural University

Prof. V. Veerabhadraiah
Former Director of Extension
University of Agricultural Sciences, Bangalore

Shri Prasad K V S, Secretary
Executive Director

AME VISION

AME subscribes to a global, socio-political and economic system, which affords just and equitable opportunity for all, in the development process. AME recognizes that in the prevailing circumstances, the worst affected are a large number of disadvantaged families dependent on farming in rain fed areas, with a future rapidly going out of their control. AME believes that sustainable livelihoods for all are attainable through systematic ecological approach to the development process.

AME MISSION

AME is committed to realizing its vision through a holistic perspective in all its endeavours. AME will work towards sustainable livelihoods through innovations in technology, harnessing indigenous and advanced knowledge systems. AME will promote sustainable agriculture and natural resource management systems that address issues of ecological degradation. These developments will be disseminated widely for empowering the resource-poor and disadvantaged farm families and communities. In generating these alternatives, AME will integrate the needs of gender and equity issues. These efforts will be complemented with the facilitation of collaborative and participatory processes for both effective dissemination and advocacy.