



Farmers conducting Agro Ecosystem Analysis in cotton crop

## **ANNUAL REPORT**

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### **AME Foundation**

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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, likeminded 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.

#### **PREFACE**

The year 2007-08 marks the sixth year of AME Foundation. It has been a year of up and out scaling of sustainable agriculture systems, practices and awareness. For the first time in the six years of the formation of the Foundation, the involvement of farm families in sustainable agriculture promotion activities has gone beyond 10,000. This has been made possible by the extensive preparatory works in the year 2005 and the capacity building efforts in 2006. Innovations in adopting FFS methodology under dry farming context and preparation of a large pool of FFS facilitators among partner NGOs and CBOs has laid a solid foundation for further up scaling.

Various technology options addressing conservation and utilisation of natural farm resources, soil, water and biodiversity, are generating dividends to the farmers and are contributing positively to the environmental stability. A comprehensive technology approach to improving and stabilising yields in dry land agriculture is taking shape. With the broad-based curricula, FFS is increasingly becoming an effective methodology to meet the needs of farming under dry land conditions. As a result, visible examples of sustainable agriculture - the eco farming bases – developed in the last three years are being put to use as learning situations for more farmers and NGOs. The AME Silver Jubilee Year 2007 offered ample opportunities for sharing these experiences and for widening our horizon and deepening the insights.

The successes in the form of yield improvements, cost reductions and popularisation of ecological practices are encouraging, despite the challenges posed by the degraded ecosystems and the climate. The growing repository of dry land technologies, the modified FFS approach and the large pool of local change agents trained in sustainable agriculture and participatory training tools such as FFS, are emerging as the most precious gains from the Foundation's activities. The long road to sustainable development is becoming easier to attain with these gains.

The Annual Report provides an overview of the scale, processes, learning and outcomes.

#### **ACKNOWLEDGEMENT**

We are pleased to present the Annual Report 2007-08. It has been an eventful year of promoting sustainable agriculture as a means of improving the livelihoods of resource-poor farmers on one hand and addressing ecological degradation on the other. A large number of farmers stuck in dry land farming in the fragile ecosystems of the Deccan Plateau are reached through a number of like-minded partner NGOs.

The innovations and successes attained in the process of implementing a variety of programmes are owed to the support from the FAO, the ILEIA Foundation, the Departments of Science and Technology and Biotechnology (DST and DBT), IWMI and other agencies. We acknowledge and appreciate their constant encouragement.

We thank the farmers and partner NGOs involved in various programmes for their consistent interest in sustainable agriculture. The perseverance and creativity on part of each and every staff member of AMEF is highly appreciated.

We sincerely thank the cooperation extended to our farmers and us by the extension staff of State Departments of Agriculture and other line departments as also the scientists of State Agriculture Universities in Andhra Pradesh, Karnataka and Tamil Nadu.

We are indebted to the Chairman, the Treasurer and the member Trustees of AME Foundation for their invaluable guidance.

**Arun Balamatti** Executive Director

#### **EXECUTIVE SUMMARY**

With the completion of the financial year 2007-08 AME Foundation turned sixth years as Foundation. AMEF continues to be supported by the Royal Netherlands Embassy, the support coming through the FAO in the last three years. While the programme support from DGIS and SIDA /ILEIA Foundation, continues, five other agencies have come forward to support AMEF in its efforts of promoting sustainable agriculture (SA).

The AMEF-FAO Partnership Project, the major project under implementation currently, has completed three years of work on promoting livelihood improvements of resource-poor farmers dependent on dry farming on the Deccan Plateau. It has been an eventful year of 'upscaling sustainable agriculture promotion by adopting FFS approach'. The 'preparations' in the year 2005 and the 'capacity building' of staff of AMEF, partner NGOs and farmers, in 2006 and 2007, have provided an appropriate platform for promoting, operationalising and spreading of SA. In the process, the Partnership Project has offered many challenges, opportunities, the need for innovations and valuable lessons.

Promotion of SA has been addressed in the Project with specific emphasis on onfarm natural resource conservation and natural resource utilization - NRM in its specific operations. The NRM strategy included adoption of a combination of basic operations by the farmers in connection with *in-situ* rainwater conservation, soil fertility improvement and modified cropping systems. The technology combinations have been harnessed from both the farmers' traditional knowledge and the modern technology pool. While there are technologies abound, the challenge has been that of making these alternative technology options part of farmers' knowledge, belief and experience, in that order. This is where the Farmer Field School (FFS), the discovery and experiential learning process, has played a crucial role in farmer empowerment.

During the years 2006 and 2007, with the support of FAO, extensive efforts were made to train FFS facilitators within AMEF and, in turn, among the partner NGOs, for attaining larger spread of SA promotion. As a result, in 2007- 08, 41 partner NGOs were involved in the Project in implementing and upscaling SA through FFS approach. The season-long training of facilitators (ToF) in Madanapalli concluded in May 2007. It was the third such event organized by AMEF in the last two years. This apart, AMEF has developed an innovative, shorter version of ToF (SToF) of two-week duration, to suit the NGO needs. AMEF organized 8 SToFs in order to harness the community mobilization strength of partner NGOs by training their staff on FFS methodology who organised large number of FFS events. In all, 541 FFS events were organized involving 10,980 farmers covering 11 different cropping systems. The farmers are operationalising SA in cluster villages and the visible SA models emerging in their farms are being used as learning situations for inspiring other farmers and ENPs.

The outcomes of FFS events are in terms of the number of farmers getting involved in the knowledge empowerment processes, getting improved in their decision-making skills on crop-ecology management and also in terms of yield improvements, reduction in the production costs and popularization of LEISA practices. As a result, a 'basket of technology options' has been developed for 16 different cropping systems.

The year 2007 marked the Silver Jubilee Year of AME. A series of district, state and national level workshops were organized commemorating the milestone and share the Project approach and outcomes with various biomass actors. It is gratifying to note that along with the farmers and the ENPs many other R & D agencies like the State Agricultural Universities, State Development Departments, Research Institutes and the district administration have accepted, appreciated and encouraged the SA promotion activities of AMEF undertaken in the Partnership Project. It is to be noted here that AMEF is receiving requests for FFS training from across the Country.

Under the LEISA India Programme, apart from the increasing readership, the LEISA India team has taken up a new initiative on building LEISA Alliance.

The Urban Horticulture and Peri-urban Agriculture Project, supported by IDRC/ETC -NL/IWMI, is making steady progress with the MPAP process. Additional proposals are prepared for the 'Dissemination city - Bangalore' as well as 'Pilot city - Magadi'. The Biofarms Project supported by the DST has concluded on 31 March 2008. The Project on simple biotechnology options, supported by the DBT, completed one year at the end of January 2008. The concerned departments have appreciated the progress made under both the projects.

The annual expenditure of AME Foundation for the year 2007-08 is Rs.4.50 crores.

#### **ACRONYMS and ABBREVIATIONS**

ACTS Action for Community Service
AESA Agro Eco System Analysis

AICRP All India Coordinated Research Project

ANGRAU Acharya N.G. Ranga Agricultural University

ATMA Agriculture Technology Management Agency

BBE Ballot Box Exercise

BEST Bharat Environment Seva Trust

BIRD-K BAIF Institute of Rural Development – Karnataka

CAD Community Action For Development
CCD Centre for Community Development
CDW Curriculum Development Workshop
CMRC Community Managed Resource Centre

CRIDA Central Research Institute for Dryland Agriculture

CRP Community Resource Person

CSWCR&TI Central Soil and Water Conservation Research and Training Institute

DAATTC District Agriculture And Technology Training Institute

DAS Days After Sowing

DAP Di-ammonium Phosphate
DBT Department of Biotechnology

DFL Disease Free Layings
DLH Dry Land Horticulture

DMI Society for Daughters of Marry Immaculate and Collaborators

DPAP Drought Prone Area Project
DPIP District Poverty Initiatives Project
DST Department of Science and Technology
DWDA District Watershed Development Agency
DWMA District Water Management Agency
EGS Employment Guarantee Scheme

ENP Eco-Network Partner
ETV Eenadu Tele Vision
FAG Farmers' Affinity Group
FFS Farmer Field School
FP Farmer's Practice
GD Group Dynamics

GDLP Greening the Dryland Programme
GEC Gender and Equity Concerns
GKVK Gandhi Krishi Vigyana Kendra

GUARD Group For Urban and Rural Development
GVS-T Grameena Vikas Samithi, Tirupathi
HELP Help for Education and Learning Project
IAT Institute of Agriculture Technologists

ICM Integrated Crop Management

ICRISAT International Crop Research Institute for Semi Arid Tropics

IEM International Editors' Meeting
IFS Integrated Farming Systems
IGA Income Generation Activity

IIHR Indian Institute for Horticulture Research

ILEIA Centre for Information on Low External Input and Sustainable Agriculture

INGRID India's New Group for Raichur's Integrated Development

INM Integrated Nutrient Management

INDO-TRUST Indian Development Organization Trust

IPM Integrated Pest Management

IRDO Integrated Rural Development Organization

ISEER Indian Society For Environmental Education and Research

IWMI International Water Management Institute

IZ Insect Zoo

JDA Joint Director of Agriculture

JSW Jindal Steel Works

KAWAD Karnataka Watershed Development Project

KSARDS Karnataka Sustainable Agriculture And Rural Development Society

KVK Krishi Vignana Kendra

KVIC Khadi and Village Industries Corporation

LTE Long Term Experiments

MAS Months After Sowing

MANAGE National Institute for Agriculture Extension Management

MPAP Multi-stakeholder Process for Action Planning and Policy Design

MSSRF M S Swaminathan Research Foundation

MToF Modified Training of Facilitators

NAARM National Academy of Agricultural Research Management
NABARD National Bank for Agriculture and Rural Development
NAFARD National Association for Agriculture and Rural Development

NFE Non Formal Education

NIRD National Institute of Rural Development

NPRC National Pulse Research Centre
NRC Natural Resource Conservation

NRDS Navachetna Rural Development Society

NRU Natural Resource Utilization
NSKE Neem Seed Kernel Extract

PACB Primary Agriculture Co-operative Bank

PBND Peanut Bud Necrosis Disease

POWER People Organization for Wasteland and Environment Regeneration

PPDS Poor People Development Society
PRA Participatory Rural Appraisal
PSB Phosphate Solubilising Bacteria

PSSS Perambalur Social Service Society
PTD Participatory Technology Development
RARS Regional Agricultural Research Station

RASTA Rural Agency for Social and Technological Advancement

RDT Rural Development Trust
RNE Royal Netherlands Embassy
RSK Raitha Samparka Kendra

RSRS Regional Sericulture Research Station
RToF Refresher Training of Facilitators

RUAF Resource Centre on Urban Agriculture and Food Security

SAARC South Asian Association for Regional Cooperation

SAFC Sustainable Agriculture Fellowship Course

SAN Sustainable Agriculture Network

SDDPA Society for Development of Drought Prone Area

SEEMA Society for Empowerment in Environment Matters and Agriculture

SKDRDT Shri Kshetra Dharmastala Rural Development Trust

SLA Sustainable Livelihood Analysis

SLTP Season Long Training of Trainers Programme
SMGAS Sarvodaya Mahila Gramina Abhivrudhi Society

SPPD Society for Poor People Development

SPWD Society for Promotion of Wastelands Development

SRDS Sankalpa Rural Developmental Society

SRI System of Rice Intensification

SS Short Study

SToF Short Term Training of Facilitators

SWARD Society for Women Agriculture and Rural Development

TCRS Tapioca and Castor Research Station
TNAU Tamil Nadu Agriculture University

ToF Training of Facilitators
ToT Training of Trainers

TSSCRT- T. S. Srinivasan Centre for Rural Training, TVS Educational Society

**TVSES** 

WASSAN Watershed Support Services and Activities Network

WHC Water Holding Capacity

WDS Watershed Development Society

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#### 1. INTRODUCTION

Indian agriculture is often talked about in relation to the Green Revolution and its mixed record of successes and failures. Yet the majority of Indian farmers practice rain fed agriculture, an entirely different farming system from that practiced in the irrigated areas. Overall, almost two-thirds of Indian farmers rely solely on rainfall to derive a livelihood from the land.

Challenges to feed and to fulfil 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 the Deccan Plateau. 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.

The poor conditions for agriculture on the Deccan Plateau in Southern India require the implementation of careful and complex farming strategies in order for farmers to produce enough food to sustain their families throughout the year. In such environments, biodiversity and food security are inextricably intertwined.

AME Foundation (AMEF), over the years, with its deep-rooted interest in sustainable agriculture (SA), has been seeking ways to fulfil 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 an international 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, include 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. Promoting Integrated Farming Systems (IFS) and Integrated Crop Management (ICM) with sensitivity to gender and equity concerns are the major features of the organization.

The focal activities of the organization are given below:

- 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.
- 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.
- Capacity building of stakeholders: The CBOs, SHGs, Panchayat Raj bodies and local staff of development agencies who can play a facilitative role in making use of this knowledge will be sensitised and trained on the knowledge generated in the sphere of alternative agriculture/land use practices.
- 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.
- **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.
- 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.
- 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.
- Preparing professionals in LEISA technologies: AMEF is making innovative efforts to institute fellowships for fresh graduates in agriculture to be oriented and practically trained in eco friendly farming systems, natural resource management as well as rebuilding environmental support to 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.

The major tasks pursued by the AMEF Area Units are the following:

- Creating and using eco farming base Working in clusters of villages, with groups of farmers, develop ecologically sound farming systems, which will serve in preparing the staff in practical work experience and in providing effective learning situations for the NGO and others in their training. Further, it will serve as a springboard for scaling up of LEISA activities.
- Working with NGO network partners for scaling up of SA Preparing and working with like-minded NGOs as partners to scale up sustainable agricultural concepts and practices. The partner NGOs are called Eco Network Partners (ENP).
- Fostering LEISA initiatives, promoting SA Beyond the clusters of villages and operational areas of NGO partners, we promote and foster interest and initiatives on the part of individuals, groups and organizations in sustainable agricultural operations.
- Building linkages with key biomass players, creating synergic impact Establishing working relationships with other agencies interested in eco farming like SAUs, government departments and private organizations to share useful knowledge related to sustainable agriculture.
- Documentation and dissemination for wider sharing— Since there are many lessons to be learnt and shared in relation to sustainable agriculture, making systematic efforts are made to document and share useful knowledge with those interested.

So far, AMEF had been using combination of methodologies in implementing the focal activities. However, efforts are now being made to pursue many of these activities in FFS methodology, since May 2006, while PTD process is also being used when appropriate. While the primary objective remains promoting SA in the dry lands of Deccan Plateau, AMEF is making earnest efforts to broadbase the FFS in order to meet the demands of improving livelihoods in the drylands. With this, effectively, the present strategy focuses on 'operationalising SA' with 'modified FFS methodology' in order to extend the farmer outreach.

A comprehensive working strategy is formulated, which is aimed at 'on-farm natural resource management', and is being adopted as a step towards working with partner NGO networks. In the context of promoting SA, the following terminologies are adopted to create an identity for the participants and the components in this innovative process:

**Eco-farmers:** Refers to the members of the farmers' groups, associated with AMEF, in cluster villages, which adopt a minimum of three activities related to on-farm rainwater management, soil productivity enhancement and improved cropping practices.

**Eco-farming group:** Refers to the group of Eco-farmers in a village, where AMEF works.

**Eco-farming base:** Refers to a set of farms in a locality where a combination of alternative farming practices is put to use by Eco-farmers.

**Eco-farming forum:** Refers to an alliance of all the Eco-farming groups in the cluster of villages.

**Eco-network partners (ENP):** Refers to the partners with whom AMEF is working. In promoting eco farming, the focus of AMEF, beyond establishing the eco-farming base, is on working with network of partner NGOs and CBOs, for scaling up the alternative farming practices.

#### 2. AREAS OF OPERATION

AME Foundation is operating with 7 Area Units Madanapalle located at and Mahabubnagar in Andhra Pradesh: Raichur, Bellary and Bijapur in Karnataka; and at Tiruchi and Dharmapuri in Tamil Nadu. A Project Unit has been established in Kolar, Karnataka, in June 2007. The Central Unit in Bangalore is responsible for programmatic. financial all and administrative matters and coordinates the activities across the Units.

#### 3. WORK PROFILE

#### **AMEF - FAO Partnership Project**

The Partnership Project is the major project implemented during the year. The progress presented below.



AME Foundation has worked with farmers, both through ENPs and through its own interventions. AMEF developed association with **41 partners** (ENPs) during the year (Table 1) reaching **6596** farmers organised in to **317** groups (Table 2). During the year, AMEF has constantly supported the ENPs to reach more farmers by training their staff on alternative farming practices and FFS methodologies. The trained ENP staffs have reached about **4744** more farmers in **223** villages. The AUs of AMEF worked with **771** farmers organised in to **43** groups in **42** villages consolidating the learning in the previous seasons. In all, **12,114 farmers** were reached by the Project in the year and the state wise coverage is 2908 (24.01%) farmers in Andhra Pradesh, 5327 (43.97%) farmers in Karnataka and 3879 (32.02 %) farmers in Tamil Nadu (Table 2).

Table 1. Eco-network partners, districts and major programmes in 2007-08

State	Unit	Eco-Network Partners (NGOs)	District/s	Cropping system
Andhra Pradesh	Madanapalle	ACTS, GVS-T, CHAITANYA, SPANDANA, APRRM	Chittoor, Anantapur	Groundnut, tomato
	Mahbubnagar	SDDPA, WDS, Eco-Club IRDO	Mahabubnagar	Castor, cotton, paddy, tomato
Karnataka	Raichur	INGRID, SMGAS, SRDS, PRERANA	Raichur	Groundnut, cotton, sorghum, sunflower
	Bellary	GUARD Chitradurga, GUARD Bellary, OUTREACH	Bellary, Chitradurga	Groundnut, onion, sericulture, paddy, chilli
	Bijapur	ISEER, POWER, NAFARD, KSARDS	Bijapur	Sorghum, groundnut, sunflower
	Kolar	SEEMA, NRDS, Wahini	Kolar	Ragi, groundnut and tomato
Tamil Nadu	Tiruchi	CAD, PSSS, INDO - TRUST, SPPD, DMI, BEST	Tiruchi, and Perambalur	Groundnut, maize
	Dharmapuri	9 CMRCs (B. Agraharam, Palacode, Pennagaram, Chinnampalli, Kadathur, Odasalpatty, Salivaram, Kamandoddi, Thally), TSSCRT- TVSES OUTREACH HELP	Dharmapuri and Krishnagiri	Groundnut, ragi, tapioca and tomato

Table 2. Number of farm families (farmers) reached

State/AU	No. of ENPs	Farmers reached through ENPs			Farmers reached by ENPs on their own				by	Total number of farmers reached			
		F	G	V	F	G	٧	F	G	٧	F	G	٧
Andhra Prades	sh											'	
Madanapalli	5	897	52	48	375	13	13	99	6	5	1371	72	67
Mahabubnagar	4	703	36	30	780	32	32	54	3	3	1537	71	65
	9	1600	88	78	1155	45	45	153	9	8	2908	143	132
Karnataka													
Raichur	4	373	19	15	947	56	44	107	6	6	1427	81	65
Bellary	3	233	12	12	1542	79	79	149	8	8	1924	99	99
Bijapur	4	1112	48	48				109	6	6	1221	54	54
Kolar	3	700	35	35				55	3	3	755	38	38
	14	2418	114	110	2489	135	123	420	20	20	5327	272	256
Tamil Nadu													
Tiruchi	6	542	27	27	1100	55	55	163	9	9	1805	91	91
Dharmapuri	12	2036	88	88				38	2	2	2074	90	90
	17	2578	115	115	1100	55	55	201	11	11	3879	181	181
TOTAL	41	6596	317	303	4744	235	223	774	40	39	12114	596	569

It is to be noted here that the number of farm families involved in SA promotion in a year crossed 10,000 mark for the first time in the Foundation's history. As many as 12114 farmers are involved in SA activities through 41 ENPs in 569 villages across Andhra Pradesh, Karnataka and Tamil Nadu.

Table 3. Gender segregated of participating farmers

State/AU	ENPs/NGOs			AMEF			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh									
Madanapalli	1089	183	1272	80	19	99	1169	202	1371
Mahabubnagar	1390	93	1483	51	3	54	1441	96	1537
Karnataka									
Raichur	1110	210	1320	88	19	107	1198	229	1427
Bellary	1567	208	1775	123	26	149	1690	234	1924
Bijapur	904	208	1112	66	43	109	970	251	1221
Kolar	663	37	700	19	36	55	682	73	755
Tamil Nadu									
Tiruchi	974	668	1642	106	57	163	1080	725	1805
Dharmapuri	211	1825	2036	30	8	38	241	1833	2074
TOTAL	1185	2493	3678	136	65	201	1321	2558	3879

The participation of women in SA promotion activities was **30** per cent (3643 out of 12114) in the reporting year. While the farmers were involved in SA promotion activities as a family, deliberate efforts were made to encourage participation of more women by involving women in training events (Table-3).



Farm family involved in Azolla cultivation

# 4. GENERATION AND ADOPTION OF ECO-FRIENDLY TECHNOLOGIES

AMEF's main thrust is on improving the livelihoods of poor, dry land farmers. For this purpose, AMEF enables them to adopt simple, affordable technologies for increasing biomass and land productivity, while protecting the environment.

The rainfall and the distribution in AMEF operational areas were encouraging in the year 2007. While the actual rainfall exceeded the normal at Madanapalli, Mahabubnagar (Andhra Pradesh), Raichur and Bellary (Karnataka), it did not vary much at Bijapur, Kolar (Karnataka) and Dharmapuri (Tamil Nadu). However, it was drastically less in the operational areas of Tiruchi AU.

The various NRC and NRU technology options relating to three basic operations, namely on-farm rainwater conservation, upgrading soil fertility, crops and cropping systems, and two support operations of generation of additional plant biomass and income generation activities, leading to improvement of dry land agriculture and hence livelihoods of resource poor farmers, are promoted through FFS.

#### Adoption of combination of basic operations in cluster and ENP villages

The progress on field operations by a total of 7921 farmers is given below. This data is from 771 farmers in cluster villages and 7150 farmers in ENP villages indicating the adoption of basic operations in combination.

The farmers across AUs have adopted many practices of in-situ rainwater management. The practices like fall ploughing (4188 farmers. 53%), cultivation across the slope (4502 farmers, 57%) and bunding (2251 farmers, 28%) were the most adopted rainwater management practices. Other practices like inter cultivation (2482, 31%), mulching (212 farmers, 3%), conservation furrows farmers, 14%), interception bunds and compartment bunds (1045 farmers, 13%) were also adopted by farmers to conserve and make rainwater available at the root zone of different crops. The farmers were linked to the government programmes like NREGA and for undertaking activities like digging farm ponds and border trenches.



Fall ploughing across the slope



Conservation furrows

The **soil fertility enhancement** practices, like use of bio fertilizers (5149 farmers, 65%), legumes as inter/mixed crops (4261 farmers, 54%), FYM and enriched FYM application (1724, 22%) were practiced by majority of the farmers. Many farmers started composting (1874 farmers, 24%) and vermicomposting (969 farmers, 12%) units and applied them to their crops and realized the benefits. *In-situ* green manuring and incorporation of crop residues have shown farmers an alternative way of improving soil fertility in dry lands.



Farmers preparing enriched FYM

In situ green manuring

The improved crop production practices adopted by majority of farmers across the AUs were, use of good quality seeds (4696 farmers, 59%), improved varieties (907 farmers, 11%), maintaining optimum plant density (2769 farmers, 39%) and practicing IPM using biologicals and botanicals (2613 farmers, 33%). More farmers have adopted crop rotation (2206 farmers, 28%), mixed cropping farmers, 7.4%), strip cropping (515 farmers, 6.5%), and catch cropping and diversified the crop eco systems. Seed of different multiplication crops (groundnut, sorghum, sunhemp, ragi, navane) was also practiced by few farmers.



Maintaining optimum plant density



Strip cropping – Groundnut with Ragi

The curriculum of FFS events stressed the need for **generating plant biomass** on and off the field as a support activity to improve soil productivity and for use as fodder. Many farmers have done bund plantation (1777 farmers, 22%) with manurial species. Nursery raising (642 farmers, 8%) both at the individual level and at group level were encouraged to make available the seedlings during monsoon. Farmers were guided to monitor the survival of the seedlings and take up measures to increase the survival percentage. Many farmers (1161 farmers, 15%) planted different fodder species (subabul, Napier grass, fodder maize, fodder sorghum) and started *Azolla* cultivation (1793 farmers, 23%) both fodder supplement for milch animals and as green manure in paddy.







Azolla as green manure in paddy

Emphasis was given to encourage farmers in adopting different **income generation activities** to supplement their income from agriculture, especially in the year 2007. Kitchen gardening or homestead gardening was widely adopted across AUs (2595 farmers, 33%) and the farmers realized that the practice served both as a means of income security and family nutrition security. Some farmers have started rearing poultry (321 farmers, 4%) and small ruminants (531 farmers, 7%).



Kitchen gardening



Poultry rearing

The farmers are putting together a combination of basic operations in the field as part of NRC and NRU and are realizing the benefits through improved yields and reduced crop production costs. On the other hand, the ENPs are learning the systematics of SA promotion as a holistic approach to on-farm management of natural resources (NRM).

### 5. CAPACITY BUILDING

AMEF believes that training of farmers, ENPs and internal staff is essential in its endeavour to influence the minds and practices of more farmers and in its effort to address the issues of livelihood improvement and ecological concerns. AMEF staff members conduct training programmes to eco-farmers in cluster villages. In ENP villages, staff members of ENP conduct capacity building activities to farmers with the support from AMEF staff members to promote alternative technologies. In the beginning, AMEF staff members arrange training events in few villages and for few groups involving ENP staff to provide them opportunities to understand the process, content and skills of operationalising SA. The ENP staff acquire the knowledge and spread them in many more villages and groups under their jurisdiction. AMEF staff members provide further field support and guidance the ENP staff in Sa technologies and FFS methodology.

AMEF has been adopting different participatory processes like PRA, FFS and PTD to promote SA practices across AUs in specific crops. Participatory processes bear a framework of methodology cantered on the principle that participation is a moral right, in which multiple perspectives are sought through a process of group inquiry, developed for the specific context, and thus using systematic methods to help people organize to bring about changes in problem situations that they see as improvements. Farmers are guided to analyse the problems through PRA techniques and work out the possible options. They are also involved in the process of developing suitable strategies to combat the adverse situations.

Beginning with the involvement of farmers in identification of problems through PRA, efforts of ensuring active involvement of farmers continues in executing programmes in one or the other processes, either in problem solving PTD or discovery learning FFS, both in cluster and ENP groups.

#### 5.1 Capacity Building of ENP staff

#### 5.1.1 Train NGOs in participatory methodologies like PTD and FFS

Season-long Training of Facilitators (ToF), refresher ToF (RToF) and two-week short ToF (SToF), were the major training events conducted during the year to prepare FFS facilitators among NGOs.

#### a. Training of Facilitators (ToF)

The Area Unit, Madanapalli conducted the ToF programme (FFS - Integrated Farming Systems for Livelihood Improvement) on the lines of MToFs conducted in Dharmapuri and Bijapur. However, the facilitators here were the internal AMEF staff unlike the trainers from the State Department of Agriculture in the previous two ToFs. The event prepared 32 ToF graduates including 12 staff of ENPs in Madanapalli and 10 in Mahabubnagar, 2 from SEEMA - the ENP in Kolar, 2 from CWS - an NGO in Andhra Pradesh and 6 AMEF staff. The ToF on IFS commenced on 19 January 2007 at the OUTREACH training centre and was concluded on 19 May 2007. Practice FFS were conducted in 10 villages involving 204 farmers.

#### b. Refresher Training of Facilitators (R-ToF)

The ENP staffs, who underwent season long FFS training in 2006 and those who participated in ToFs, were trained in a two-week R-ToF emphasizing the FFS methodology and involving them in development of curriculum aimed at consolidation of NRC and NRU with the addition of support activities. This has enabled the ENP staff to run FFS under AMEF's guidance in 2007.

In **Raichur,** the R-ToF was carried out wherein 15 ENP staffs were trained. The 19 ToF graduates participated in the R-ToF programme in **Bijapur**. In **Bellary**, seven ENP staff of the AU were given training on the concept and methodology of FFS. In **Dharmapuri**, the R-ToF was carried out in three phases to MToF graduates and an elaborate action plan was prepared by including different livelihood aspects in the follow-up FFS curriculum. In **Madanapalli**, the RToF was conducted for those ENP staff who did not participate in the season-long ToF on IFS.

Table 4: R -ToF events in 2007

Area Unit	E	NP staff	Farmers		
	No. of Events	No. of staff trained	No. of Events	No. of farmers trained	
Madanapalli	1	4	1	15	
Raichur	1	15	1	38	
Bellary	1	7	1	15	
Bijapur	1	19	1	20	
Tiruchi	1	12			
Dharmapuri	2	25	1	10	
Total	7	82	5	98	

The refresher training events were conducted for farmer facilitators across AUs, who assisted the AU in facilitating sessions in Follow-up FFS and in conducting new FFS on their own with AMEF's guidance and supervision.

In all, 7 R-ToF events were organised for the ENP staff and another 5 events for lead farmers involving 82 ENP staff and 98 farmer facilitators.

#### c. Short term Training of Facilitators (S-ToF)

As part of capacity building of ENPs, AMEF has worked with many NGOs in the past few years. Based on the keen interest shown by some of the middle level NGOs, AMEF has developed an innovative two-week ToF based on the FAO-Kenya ToF model, the short term ToF (S-ToF) on FFS. The event involved two-week intensive training on FFS methodology and SA technologies followed by season-long FFS conducted by trainees under AMEF guidance. The purpose was to prepare a pool of FFS facilitators among ENPs. The ENPs, in turn, are enabled to run FFS with the groups of farmers /SHGs involved in their programmes, like watershed development programmes and non-pesticide management (NPM) programmes. The purpose of SToF is to internalise FFS methodology as a capacity building strategy among interested ENPs and enrich their programmes in terms of promoting SA. In view of time and other constraints of conducting a season-long ToFs the SToF has come in handy by taking advantage of the trained AMEF facilitators to conduct large number of FFS in short Project duration.

Table 5:	able 5: An overview of the SToF programme in 2007											
SI. No.	Area Unit	NGOs involved	Cropping system	No. of facilitators trained	FFS events	Farmers involved						
1	Bellary	GUARD	Groundnut	27	36	709						
2	Bellary	OUTREACH	Groundnut	15	15	300						
3	Bellary	GUARD	Groundnut	27	28	533						
4	Raichur	INGRID	Groundnut	30								
5	Mahabubnagar	IRDO	Cotton and Maize	34	30	750						
6	Kolar	NRDS, WAHINI	Tomato	19	19	380						
7		11 organizations from 9 districts	Maize, paddy and groundnut	21	10	200						
8	Tiruchi	BEST	Paddy	29	45	900						
	Total: 8 events	19		202	104	2230						

With 8 S-ToF events, it was possible to prepare 202 FFS facilitators who in turn conducted 183 FFS events in the year involving 3772 farmers. The experience after 8 SToF events has revealed that the duration of the two-week training on FFS methodology and critical SA technologies could be two or three weeks depending upon the prior experience of the participants in agriculture development programs. Further, a three-day per month review, guidance and monitoring support to the trainees by the master facilitators and three-day refresher training in the middle of the cropping season would further enhance the FFS quality.

#### 5.1.2 Greening the Dry Lands (GDL) Programme – Tree-based farming system

'Greening the Dry Lands' Programme (GDLP) is a novel attempt to promote SA by two resource agencies (AMEF and BIRD-K) working together and is expected to result in a path breaking effort in reviving dry land agriculture by promoting trees on agricultural lands. In the pursuit of bringing about improvement in dry land farming, while AMEF pursues soil fertility improvements through generation of plant biomass on and around the farm, BIRD-K believes in bringing back trees into agriculture. It is an attempt to establish the firm belief that dry land agriculture is as profitable as irrigated agriculture. The efforts are directed towards establishing local experiences through this collaboration.

Sustainability rests on the principle that we must meet the needs of the present without compromising the ability of future generations to meet their own needs. Keeping these in view, AMEF is collaborating and working with BIRD-K for achieving sustainability in agriculture through tree-based farming system by sharing the available knowledge, exploring the new opportunities in capacity building and facilitation of local NGOs for establishing sustainable agriculture model, integrating three major goals of Sustainable Agriculture- Environmental health, Economic profitability and Social equity.



Bund plantation

Tree Based Farming system is a sustainable land management system that combines the production of crops including tree crops, forest plants and/or animals on the same unit of land, applying management practices that are compatible with the cultural practices of the local population. Production is usually from more than one layer or stratum of the system. The integration of trees with other agricultural activities is expected to enhance the long-term sustainability and productivity of agro ecosystems. This is generally attributed to the role these trees play in controlling erosion, maintaining soil organic matter, improving nutrient use efficiency, and maintaining microclimate.

GDLP was implemented in three villages in the districts of Raichur and Mahabubnagar in July 2005 with ENPs SMGAS and SWARD in Raichur and SDDPA in Mahabubnagar. The programme involved two NGOs, SMGAS (Raichur) and SDDPA (Mahabubnagar) covering 96 farmers (5 groups) in Raichur and 120 farmers (7 groups) in Mahabubnagar.

Multipurpose forest seedling nursery establishment: During the year, owing to low survival of forestry seedlings brought from outside, it was decided to establish the nursery locally. Around 30,000 seedlings were raised and planted. Accordingly, farmers planted biomass seedlings/cuttings of manurial value (Cassia siamia, Glyricidia, Pongamia) in and around the farm and have raised fodder along the border. Seeds of Cassia, Acacia, drumstick, custard apple and amla are dibbled on the bunds taking advantage of good rainfall. The observations of the farmers involved in the FFS in tree based farming system at Raichur showed that seeds of Glyricidia, Cassia and drumstick germinate up to 80 per cent with overnight soaking in water. Only 25 per cent of Pongamia seeds germinated even with hot water treatment. Sitaphal, Amla seeds were slow in germination. There was 100 per cent germination in Sesbania. From last two years experience', it is seen that field establishment is better if the seedlings of Glyricidia are planted 3 months after sowing (MAS); Drumstick at 2 MAS; Cassia at 3.5 MAS; Pongemia at 3 MAS; and Sesbania at 1.5 MAS.



Tree based farming system

#### **5.2 Capacity Building of Farmers**

#### 5.2.1 Season Long Farmer Field School

AMEF is known as much for its pursuit of promoting LEISA as for its use of participatory approaches like PTD and FFS to empower farmers. Season long FFS was the major capacity building tool adopted in 2007. FFS sessions (weekly/fortnightly) were initiated from May – June with few exceptions, which began from July onwards. Three sets of FFS events were organised during the year – follow up events that were organised in 2006, new FFS events by AMEF and ENPs and those conducted by lead farmers.

#### a. Follow up FFS events

In the year 2007, follow up FFS events were organized for the farmers who were involved in FFS in the year 2006. The FFS were aimed at consolidation of the NRC and NRU practices by adding more practices and technologies for improving and stabilising crop yields. The focus was on building support activities and income generation activities (IGAs) in to the FFS curriculum, along with the combination of basic SA operations for addressing livelihood improvement.

Area Unit/Crop	No.	of	Participa	ating	Avg.	no.	Avg	
•	FFS events		farme	rs	of sessions		Attendance (%)	
	AMEF	ENP	AMEF	ENP	AMEF	ENP	AMEF	ENP
Madanapalli								
Groundnut	6	29	99	424	12	12	83	82
Mahbubnagar								
Castor		7		140		9		95
Cotton		2		42		9		95
Maize		6		120		9		95
Paddy	2		34		8		90	
Raichur								
Cotton	2		34		10		75	
Groundnut	3	6	55	118	10	8	85	76
Sunflower		2		38		8		73
Sorghum	1	5	18	101	8	8	75	84
TBFS		3		60		10		90
Bellary								
Groundnut	4	10	76	200	8	9	83	13
Onion	1	1	20	18	11	10	75	15
Sericulture	2	1	33	14	11	6	80	8
Paddy	1		20		8		72	
Bijapur								
Sorghum	5	12	93	297	18	16	75	75
Groundnut	1	1	16	15	12	11	75	75
Kolar								
Groundnut	1	3	35	60	12	8	78	75
Ragi		11		220		8		70
Tiruchi								
Groundnut	2	6	30	120	10	13	80	90
Maize	4	21	76	422	12	13	72	90
Total/average	35	126	639	2409	11	10	78	71

The SA promotion through FFS mode was thus done with 161 groups involving 3048 farmers in 11 different crops. The average number of sessions held in FFS is 10 in AMEF groups and 11 in ENP groups with an average attendance of 78 per cent (AMEF villages) and 71 per cent in ENP villages. The service of farmer facilitators was utilised in organising FFS events after offering them refresher training to them on both SA practices and FFS methodology.

#### b. New Farmer Field Schools

The purpose of new FFS events in 2007 was to involve more farmers in capacity building activities in FFS mode by offering opportunities for the ToF and S-ToF graduates to run FFS and to develop their facilitation skills. New FFS events were also conducted with the EFGs in the operational areas of new ENPs who had joined AMEF network during the year 2007.

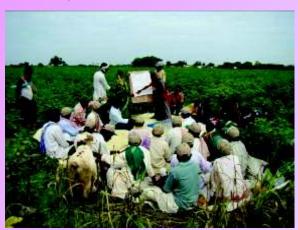
Table 7: New FFS events in 2007

Area Unit/Crop	No. of		Partici farm			no. of sions	Avg. Attendance (%)	
	AMEF	ENP	AMEF	ENP	AMEF	ENP	AMEF	ENP
Madanapalli								
Groundnut		15		311		12		90
Tomato		8		162		16		90
Mahbubnagar								
Castor	1	7	20	141	8	19	80	90
Cotton		28		680		19		80
Maize		8		190		19		90
TBFS (Castor)		4		120		18		90
Raichur								
Groundnut		25		487		14		92
Sunflower		6		120		12		75
Sorghum		8		160		12		90
TBFS		2		36		10		55
Bellary								
Groundnut		79		1542		18		77
Bijapur								
Sorghum		32		800		18		85
Kolar								
Tomato		19		380		In progress		In progress
Tiruchi								
Groundnut	3	1	57	20	12	2	78.9	70
Paddy		50		1000		5		90
Maize		4		80		4		70
Dharmapuri								
FFS on SA	2		38		17		70	
Groundnut		22		684		18		85
Ragi		38		785		18		85
Tapioca		3		71		18		85
Samai		1		25		18		85
Total/average	6	360	115	7794	12	15	76	82

In all, 366 new FFS events were organised across AUs in 11 different crop-based farming systems involving 7794 farmers. On an average, 12 FFS sessions were held in AMEF groups whereas 15 in ENP groups across crops and AUs. Efforts were made to include more livelihood improvement related topics, such as animal husbandry, public sanitation, health and energy aspects, in the FFS curricula. The CRPs/field staffs handled these topics after getting trained by external resource persons.

#### c. Farmer Field School by Farmer **Facilitators**

The capacity building efforts of AMEF through FFS in the previous years has resulted in many farmers acquiring good FFS facilitation skills. Their services were utilised to conduct FFS through a two-week Refresher Training Facilitators (RToF). In Bellary, the DWDA had sought AMEF's assistance to conduct FFS in the World Bank supported Sujala watersheds.



FFS session being conducted by farmers

For this purpose, 11 lead farmers were trained in an R-ToF on SA technologies in groundnut and FFS methodology. These farmer facilitators in turn organised FFS events in 14 villages of Molakalmuru taluk of Chitradurga district covering 350 farmers. They succeeded in popularising the knowledge on SA, especially the critical technologies of groundnut production.

#### Impact of SA promotion through FFS

AMEF, through its systematic approach to improving dry farming, aims at three specific outcomes, namely, improved and stabilised crop yields, reduction in the cost of crop production and environmental benefits.

Table 8: Impact of SA practices in combination in different crops during 2007

Crops	SA	FP	Change in SA over FP	SA	FP	Change in SA over FP (%)
			(%)			(,0,
Groundnut	4.82	3.97	21.41	4,534.17	4,437.50	2.18
Paddy	22.93	20.45	12.13	8,397.50	9,155.00	-8.27
Cotton	8.65	8.88	-2.59	7,870.00	9,210.00	-14.55
Castor	3.2	2.3	39.13	1,925.00	1,780.00	8.15
Maize	16	15	6.67	4,110.00	4,590.00	-10.46
Sunflower	4	3.5	14.29	2,600.00	3,200.00	-18.75
Sorghum	6	5	20.00	1,410.00	1,940.00	-27.32
Onion	78	60	30.00	7,300.00	8,500.00	-14.12
Ragi	13.2	11.33	16.50	3,165.00	3,400.00	-6.91
Tapioca	86.33	83.66	3.19	2,480.00	2,480.00	0.00
Tomato	192	168	14.29	17,725.00	18,498.00	-4.18

Some of the results on these lines that were obtained from the long-term experiments in the FFS events held on 11 different crops at 8 Area Units in the year 2007, are as below:

- Ten out of 11 crops recorded improved yields in SA plots as compared to the farmers' practices (control) ranging between 3.22 and 39.1 per cent. Farmers involved in cotton FFS experienced a reduction in yield by 2.5 per cent owing to reduced use of chemical fertilisers and pesticides.
- Nine out of 11 crops recorded reduced cost of crop production ranging from 4.2 to 27.3 per cent. The cost of production was more in SA plots in case of groundnut (2.3%) and castor (8.1%) due to increased application of FYM and use of higher seed rate.
- Examples of environmental benefits included on-farm soil conservation, improved vegetation around the farm, increased crop biodiversity, increased number of crop defenders, reduced use of chemical fertilisers, pesticides and popularisation of bio agents.

#### 5.2.2 Scaling up of SA systems, practices and awareness

AMEF staff continued to support the farmers to understand the principles and practices of dry farming. Many NRC and NRU aspects have become part of specific crop based FFS across Units.

Scaling up of **SA** awareness implies that the work in cluster and ENP villages leads to creating sensitivity among more farmers, as a preparatory stage. More and more farmers become aware of the need for SA. Many such farmers who become aware of SA, have adopted SA components like composting, vermin-composting, biomass production, use of bio agents, growing intercrops and Azolla cultivation. This is considered as scaling up of **SA** practices. Convinced by the benefits of adopting individual components of SA, a few farmers moved to the next stage of SA, i.e., adopting combination of basic practices leading to scaling up of **SA** systems.

The plan is to reach more farmers and NGOs through various ways like creating opportunities for interaction, organising capacity building events and providing field support for some illustrative activities like field visits, field days, sharing events, study tours, workshops and street plays (Kalaa jatha).

Study tours (37), field days (80), sharing events (138) and modular training events on SA concepts and participatory processes (270) were useful in involving over 1,00,000 farmers for the spread of SA.



Field day

#### **5.2.3 Participatory Technology Development**

## Participatory selection of tapioca variety tolerant to drought conditions, Dharmapuri

In 2006, the PTD in Tapioca in two cluster villages of Dharmapuri AU resulted in identifying an alternative variety (Co 2) of tapioca to suit dry land conditions. This year, PTD was continued with two more varieties (Co 3 and Co 4) from Tapioca and Castor Research Station (TNAU) for comparing with the prevailing variety H226 in five villages.

Among the four varieties tried, Co 2 produced maximum tuber (9.6 t/acre) followed by Co 4 (9.1 t/acre) and Co 3 (8.2 t/acre). In comparison to the ruling variety, H-226, the Co 2 variety yielded about 23.5 per cent more tubers. At the prevailing market rate of Rs.238/ q, the returns gained for Co 2 was Rs.22, 800 per acre against H 226 where in the return was Rs. 17,500 per acre. The Co 2 was found to have higher starch content (25.68%) followed by H 226 variety (24.3%) while the other two new varieties had considerably less starch content (18-19%).

The price of tubers in the market is decided based on the starch content. For every one per cent increase in starch content, the price increment is Rs.95 per ton. Similarly, if the tubers are edible, it gets sold quickly in the market (price, Rs.7-10/kg) and brings quick returns. At the same time, the variety for dry lands should have the ability to withstand the prolonged dry spell. The varieties, Co 3 and Co 4, though high yielding compared to ruling H-226, were not preferred by the farmers because both of them had poor crop stand and had long stature with more branches requiring more water for survival and better yield.

The PTD with the varieties resulted in farmers selecting and preferring Co 2 for further cultivation due to its high starch content, high yield potential, edible tubers, drought tolerance (better crop stand), short stature and shorter duration.





Participatory Technology Development in Tapioca

#### Ecological practices for uzi fly management, Bellary

Uzi fly, an insect parasite on silkworm, causes 10-20 per cent losses to the cocoon yield. The pest incidence is severe during June to October. Using mosquito nets is a common management practice; even then about 10 kg cocoons per crop get infested and are a huge loss. A PTD was laid out with 8 sericulture farmers of two villages where in four options of uzi fly management were tried.

Use of Uzi trap was the most effective among the four options tried, trapping more adults of the pest (40-50 per day) and the treatment witnessed maximum reduction in infestation (36%). Turmeric powder solution was next to the Uzi trap in that order with 30 per cent reduction in cocoon infestation. Spider web and the biological agent could reduce the infestation by 20-30 per cent. In terms of cost of management, the turmeric powder worked out to be cost effective (Rs. 7 per 100 DFLs).

At the end of the trial, the participant farmers of the PTD discussed the results. Though the Uzi trap was very effective, the farmers need to invest Rs. 15 per100 DFLs and also timely availability is not assured. The adults trapped in turmeric solution were supposed to be spent adults and therefore the efficacy of the measure could not be decided based on the adults trapped. In case of spider web, though it involves no investment, flies, which tend to move through windows, could only be trapped. Thus, farmers opined that integrated control is the best and when they tried they could achieve up to 50 per cent control of the pest.



Basket of options in PTD for Uzi fly management in Sericulture –(1) Turmeric solution, (2) Spider web, (3) Nesolynx thymus (4) Solution of Uzi trap tablets

#### 5.3 Internal Capacity Building

AMEF considers it critically important that its staff keep continuously abreast of the developments and in social methods and management. For this purpose, in-house knowledge updating opportunities are provided by way of organizing training events and workshops. These events are apart from the monthly team meetings held regularly in the AUs to review the activities.

#### Internal capacity building activities

- Induction for new staff on the Organisation, programmes, systems and procedures on 16<sup>th</sup> April, 2007
- Training on AMEF Database, 22-23 May, at Bangalore One APO and the Secretary from all the AUs participated and practiced the use of software.
- An Internal study tour was conducted to facilitate the cross learning across AMEF's AUs. One staff each from Mahabubnagar, Raichur, Bellary and Bijapur visited Dharmapuri and Tiruchi AUs and interacted on the experiences form respective AUs.
- Workshop on Sustainable Livelihood Analysis (SLA) for the AMEF staff on 10 -11 July at MYRADA Training Center, Kamasamudram. Dr. Francesca Mancini, FAO facilitated the training event. The participants were oriented on the use of the SLA tool to study the impact of AMEF's SA activities on the livelihood of farmers. Action plans were designed by each AU to carry out the study in their respective AUs. The study was carried out by all AUs.
- Visioning Exercise for Priming and Scaling up of the activities of AMEF, held at Bangalore on 20-21 August 2007. The AUCs and 1-2 APOs from each AU participated in the event.
- One-day Workshop on Gender and Climate Change, conducted Bangalore on 21 September 2007 for AMEF staff. Dr. Yianna Lambrou, FAO, Rome and Dr. Francesca Mancini, FAO, India facilitated the workshop.
- One-day discussion Meeting on Programme Review and Future Work Plans held at Kolar for AMEF staff on 30 October 2007.
- Annual Progress Review and Preplanning Workshop conducted on 18-20 December 2007 at REDS Skill Training Centre, Bangalore, All the Programme staff from CU and AU participated and discussed on the progress of the year 2007 against the plans and planned the activities for the year 2008.

Sustainable Livelihood Analysis (SLA): The SLA is a tool to improve our understanding of livelihoods, particularly the livelihoods of the poor. It provides a framework for research and policy that takes into account the complex and multidimensional relationships between the social and physical environments, especially highlighting the vulnerability context in which decisions about livelihood strategies take place. SLA does so by linking different types of livelihood assets to the transforming structures and processes (the market, the state, culture) that give these assets their meaning and value. It is a mode of analysis that permits one to shift readily from intrahousehold to global levels and from present to past to future.

SLA has emerged as an alternative way of conceptualising poverty alleviation, including its context, objectives and priorities. It focuses on one of the most fundamental aspects of life: the ability of people to support themselves, both now and into the future. SLA does so in a manner that views livelihoods within both micro and macro contexts, spanning both physical and social environments at the local to the global levels.

#### AMEF Staff participation in external Workshops/ Meetings/Conferences

- Mr. Anil More and Mr. Rudragouda attended the 'National Kharif Workshop of AICRP on Groundnut' at UAS, Dharwad from 17-19 April 2007and shared AMEF's experiences of promoting SA in groundnut cultivation in Bellary and Bijapur.
- Mr. Ravindranath Reddy participated in the 'Tungabhadra River Basin Stakeholders' Workshop' organised by SOPPECOM, Pune, on 29 May 2007.
- Mr. K.V.S. Prasad and Dr. Arun Balamatti participated in the IEM-2007 at Netherlands. They also participated in the FAO Workshop on Food security at Rome during the first week of May. These workshops helped in building contacts and strengthen networking.
- J. Diraviam, R. Kuttimani and G. Parvathi participated in ATMA meeting at JDA office, Dharmapuri, on 10 May to discuss on the programme
- I. Jaisankar participated in a meeting and gave a lecture at Sri Vidya Mandir College of Arts and Science to students and farmers of Naiyakanur village on dry land agriculture and rainwater management on 16 May 2007.
- J. Diraviam gave a guest lecture for TNAU students on NGOs and their role in agricultural development on 26 June 2007.
- Dr. J. Diraviam participated in First Scientific Advisory Committee Meeting of KVK, Paiyur on 5 July 2007.
- Mr. Ravindranath Reddy participated and presented a lecture on AMEF experiences on FFS during the 78 ICAR Foundation Day organized by CSWCR&TI, Bellary on 16 July 2007.
- Dr. Arun Balamatti and Ms. Nivedita Mani visited organic farm of Mr. Prabhakar at Bellibattalahalli, Tumkur on 21 July 2007
- Dr. Arun Balamatti and Mr. KVS Prasad visited SPWD in New Delhi on 26 July 2007 to strengthen linkages between AMEF and SPWD.
- Dr. Arun Balamatti and Dr. J. Diraviam participated in the 2 Annual Forum of Food and Nutrition Security Community of Solution Exchange Network of FAO at Hyderabad from 17 to 19 August 2007.
- Mr. C S Kallimani was invited as a resource person in the Organic Village Concept Programme organized by LORDS NGO with Agriculture Department, Bellary on 19 August.
- Mr. T. Jayakumar attended Training on Management of Bio-inputs in Rainfed Farming organized by National Institute of Rural Development (NIRD) from 20-25 August.
- Mr. Shyam Kulkarni participated in the Workshop on Legumes Improvement Project on 6-8 September at ICRISAT.

- Dr. J. Diraviam and Mr. T. Jayakumar participated in brainstorming session on Transfer of Technology organized by KVK, TNAU on 20 September 2007.
- Dr. Diraviam and Mr. Krishnan participated in Madurai Symposium 2007 Seminar on Enhancing Rainfed Farming Livelihoods: Need for Policy Changes, organized by DHAN Foundation on 26 September. Mr. Krishnan presented paper on 'FFS in improving Livelihoods in drylands' in the symposium.
- Dr. Arun Balamatti participated in the National Workshop on "New Paradigm for Rain fed Farming - Redesigning Support Systems and Incentives" at NAAS Campus, New Delhi from 27-29 September 2007.
- Ms. T M Radha and Mr. Shyam Kulkarni participated in the National SRI Symposium on SRI - Progress and Prospects from 3-5 October at Agartala.
- Mr. Raghavendra Yaligar participated as a Resource person in Organic Village programme of LORDS, NGO at Burranayakanahalli, Bellary in October.
- Mr. J Krishnan participated in the Scientific Advisory Committee Meeting at KVK, Sirugamani on 15 October.
- Mr. Sanjeev Joshi participated as Resource person in WYTEP programme organised by Agriculture Department, Bellary in October
- Mr. C.S Kallimani participated as Resource person in Organic Village programme of CORDS NGO in Siddapura, Siraguppa, Bellary in October
- Ms. C Manimakalai, along with cluster village farmers, attended a workshop on Reclamation of Problem Soil using Agro Forestry Models on 20 November.
- Mr. C.S Kallimani participated in Farmers' Day programme organised by CSWCR&TI, Bellary in November and shared on AMEF's FFS experience
- Dr. Rajendra Hegde participated and shared about the possible role of AMEF in promoting and popularising bio control agents through FFS in the consortium meeting organised by PDBC, Bangalore on 15 December.
- Mr. Naganagouda attended the 'Debriefing workshop on the impact of CONCERN Projects' on 27 January 2008 at Chennai
- Mr B V Joshi participated in the State level Seminar on 'Role of PRIs in NRM' organised by FES, Chintamani at IIS, Bangalore on 20 February 2008.
- Mr. Nagana Gouda attended as resource person, in the Orientation Meeting on FFS at Guddahalli, Magadi on 24 March 2008. The participants representing different stakeholders in Magadi attended.

#### 5.4 Developing Professionals in LEISA – SA Fellowship Course

The third batch of Sustainable Agriculture Fellowship Course (SAFC) on "Operationalising Sustainable Agriculture" was organised for 13 participants (6 boys and 7 girls).

The selection process for the SAFC started in January with the support of Colleges of Agricultural Universities in the three states. The course also included graduate staff of NGOs this year, particularly to attract candidates from Andhra Pradesh. The orientation to the SAFC participants was held from 14 May to 23 May 2007. Resource persons from AMEF, UAS Bangalore and Department of Agriculture, Karnataka, practicing farmers and old Fellowship students were involved in orienting the candidates on SA concepts and principles. The participants were placed at Tiruchi (1), Dharmapuri (2), Madanapalli (3), Bellary (2), Bijapur (2) and Raichur (2) Area Units. The Course Coordinators, Dr. A.M. Krishnappa and Prof. K. Pandurangaiah, were constantly guiding the students.

The SAFC candidates were guided in operationalising SA with groups of farmers in their respective villages. After the situational analysis through baseline survey and PRAs, candidates developed action plan for the group. The AMEF staff reviewed these plans and guided them in operationalising the plan.



Fellowship students conducting PRA

Candidates adopted group approach to implement the programme. Each candidate formed one group in the village, consisting of 20 farmers. Totally, 13 groups were formed by the candidates consisting of 260 farmers. The candidates adopted the FFS methodology to build the capacities of the farmers. The candidates promoted 3 basic operations (on-farm rainwater management, soil fertility improvement and better cropping practices) in combination to improve the yield and to reduce the cost of cultivation. Apart from these operations, they have also promoted manurial biomass and income generation activities. Apart from FFS, they conducted need based training, interactive study tours to AMEF cluster villages.

Study tour of 5 days duration was organised for the candidates to expose them to learn from evidences and examples of Sustainable Agriculture in the farmers' fields and at other institutions.

A Sharing and Cross-Learning event was organized at Bangalore in November where the candidates shared their experiences with other candidates. They felt it was very useful, as they could learn from others' experiences. Final review of the programme was organized on 26-27 December 2007, wherein they presented the progress made and the learning from the programme.



Participants presenting their learning in the Review Workshop



Presentation by participants

Graduation Day was organized on 29 December 2007 at AMEF Bangalore. Dr. S. Subramanya, IAS, Commissioner, BBMP, inaugurated the programme and released the Fellowship Report 2006. The candidates had organized an SA exhibition, which impressed the quests. Certificates were issued to the candidates on their successful completion of the course.



Dr. S Subramanya releasing the Fellowship Report 2006



Fellowship 2007 graduates

#### 6. FOSTERING LEISA INITIATIVES

AME Foundation is working with farmers for promoting SA. In the process, AMEF is building the capacities of farmers in generating and adopting alternative farming practices, aimed at proper conservation and development of natural farm resources, and their utilization in a sustainable manner. AMEF is seeking to improve the livelihoods of the families in dry farming and to contribute to the regeneration of the environmental support to farming. For this purpose, the farmer's perception is to be widened, insights deepened, attitude modified and managerial abilities upgraded to match the present-day demands in farming. This is necessary to ensure that farmers do what they alone can do, and to avail the several development incentives effectively.

In this background, AMEF intends to take the initiative to put into operation a simple programme of helping farmers to test and adopt alternative farming practices in both farm resource management and crop production pursuits. With this end in view, AMEF is working with select groups of farmers in clusters develop effective learning situations. These learning situations are being utilised for building abilities among ENPs for scaling up SA promotion on a large scale. In addition, AMEF also seeks to undertake capacity building task with the agencies already working with farming communities like CBOs, NGOs, and other development agencies for further extending the outreach of SA promotion. In this regard, AMEF looks for agencies interested in learning about SA and offers specific need-based training on SA.

#### **World Environment Day**

The World Environment Day was celebrated across AUs on 05 June 2007.

Dharmapuri AU organized an exhibition of posters depicting the purpose and objectives, reasons for environment degradation, effect of inappropriate agricultural practices on environment, reasons for degradation of natural resources, environment day themes and the roles of public, government, research institutions, NGOs and media in sensitising the people towards environment conservation.

The Day was celebrated in Kamalpur, Gadhar and Puchaladinni villages of Raichur AU to create awareness about trees. An essay competition was held on "Environment "at the primary school and prizes were given off to the children. Seedlings were planted on the bunds and forestry seeds were directly sown on the field

In Bijapur, the Day was celebrated in association with ENPs, ISEER and POWER. A rally was organised on the occasion. Around 496 men, 74 women farmers, 492 children and 26 teachers participated and planted more then 400 seedlings in school premises. Essay competition, guiz competition and role-plays were organized for children.

Tiruchi AU celebrated World Environment Day at SPPD training centre. The NABARD AGM, JDA of DoA, AIR official, SToF participants and farmers participated by planting seedlings.

In Bellary AU, WED was celebrated in Hospet and Kudligi taluks. The farmers were sensitised about environment conservation.

In Madanapalli and Mahabubnagar also celebrated the Day by planting tree seedlings and creating awareness regarding environment protection.

The news of World Environment Day celebrations across AUs was published in local newspapers.

#### **Study Tours**

Seven staff and 75 farmers from two NGOs, Nandi and FES (Foundation for Ecological Security), visited ToF Madanapalli on the valedictory day and interacted with the participants about the SA technologies in tomato and groundnut. The Dharmapuri AU organised a study tour to 20 participants (10 staffs and 10 lead farmers) of CCD, Madurai to AMEF cluster and ENP villages. The interaction helped them to know about SA practices, concept of community trainers and about Azolla cultivation, etc. The AU conducted one 2-day SA training to 25 members of Cluster Level Association (CLA) of OUTREACH (NGO).



SToF volunteers of Raichur visiting Madanapalli field

#### Krishi Melas/Congress

To spread SA experiences to large number of farmers, NGOs and other development actors, AME Foundation participated in the Krishimela 2007, organised by the UAS Dharwad (2-5 October) and UAS Bangalore (16-19 November). While Raichur, Bijapur and Bellary AUs together organised the stall at Dharwad, AMEF Kolar Project Unit facilitated the exhibition at Bangalore. More than 55, 000 people visited the stall and got information about SA practices. The eco-farmers Mr. Venkatesh, Puchaladinni and Mrs. Sarvamangala, Gadhar were awarded as the best farmers during Krishimela, Dharwad.

The Veterinary University, AMEF, Dharmapuri and MYRADA jointly organized a District level Conference on Summer Management of Livestock and Poultry at Dharmapuri. About 1500 farmers/ SHG members, mostly women, participated in the conference, visited AMEF stall on SA activities.

# 7. BUILDING INSTITUTIONAL LINKAGES THROUGH **COLLABORATIVE ACTIONS**

Linkages with public research institutions and progressive farmers have enabled AMEF to access technologies and resources to build knowledge and awareness of the farmers and ENPs. The AUs are developing lasting relationships with scientists and officials of Agricultural Universities and State Departments of Agriculture, Horticulture, Forest, Animal Husbandry, KVKs in all the three states, for sharing information and resources. AMEF is gaining in its visibility and is being approached by many such agencies, for support, particularly in organizing FFS based capacity building.

Some of the specific linkages across AUs are given below.

Area Units	Linkages
Madanapalli	RARS, Kadiri; LRS, Palamaneru; DWMA, DRDA, NABARD, Agriculture dept., Veterinary dept., Dept. of Fisheries, UAS Bangalore, OUTREACH, FES, Timbaktu Collective, SEDS, RDT
Mahabubnagar	NABARD & Dist Cooperative Central Bank, DWMA, RARS Palem, DOA, DAATTC, KVK, Veterinary dept. APFAMGS
Raichur	UAS Dharwad College of Agriculture, Raichur and Bijapur, College of Engineering, Raichur, KVK, Raichur; Department of Watershed; DoA; Department of Forestry; Department of Animal Husbandry and Livestock;, Sericulture Department; Zilla Panchayat, AIR, Raichur
Bellary	UAS, Dharwad; RARS, Raichur; College of Agriculture, Bijapur; KVK, Hagari; ARS Hagari; IGFRI, Dharwad; CSWCR&TI DoA Bellary and Chitradurga; Dept. of Horticulture; Department of Forestry; DWDO, Chitradurga, CSB and KASARDS;NABARD; Pragathi Grameena Bank; Madras Fertilizers Limited, Bellary; KoF, Haveri and Davangere; AIR Hospet; Timbuktu Collective
Bijapur	UAS, Dharwad; Agriculture College, Bijapur, Dept. of Veterinary, Dept. of Agriculture/RSK; DWDA, Dept. of Forestry, IGFRI, Dharwad District NGOs/Other Agencies - ARDS, VISHALA, RUDSETI, FRIENDS, SARVODAYA, OUTREACH, CHETAN & CRDS, Syndicate Bank, Lead Bank, Dept. of Health, RDS-NABARD (Belgaum), HEKS (Gulburga), NAID (Dharwad), AIR, Bijapur
Kolar	Zilla Panchayath, Kolar; Central Fodder Seed Production Farm, Bangalore, UAS, Bangalore, ARS and KVK Chintamani; IGFRI, Dharwad, DoA, Dept. of Animal Husbandry, DWDA, Canara Bank, Pragati Gerameen Bank, MFL
Tiruchi	TNAU, Coimbatore; DoA, Tiruchi; AIR, Tiruchirapalli; Anbil Dharmalingam Agricultural College & Research Institute, Tiruchi; KVK, Sirugamani; Veterinary College and Research Institute, Namakkal; Veterinary University Training Research & Centre (VUTRC), Tiruchi; DWDA, Tiruchi; NABARD and other Finance Institutions (Indian Bank and Canara Bank);NGOs like Kudumbam, RIM, LAFTI, LEAD-Trichy, BEST, Echo-Trust, PMSSS, MMSSS, CEEMA, Erode; Farmers clubs; Organizations like Centre for World Solidarity – World Vision India, Trichy and Mannarkudi, AIR Tiruchi
Dharmapuri	TCRS, TNAU, CTCRI, Thiruvananthapuram, DoA, DoH, NABARD, VUTRC, District administration, KVK, RRS, Paiyur, District NGO Network

# Commemorating AME Silver Jubilee Year - Sharing experiences

To commemorate the 25 years of service of AME, Silver Jubilee year was observed through a series of workshops at the district, state and national level. The occasion was celebrated with various stakeholders and with those deeply involved with AME in the past and present. The workshops were focussed on Initiatives in Dryland Farming where the major challenges on dryland agriculture and the emerging opportunities to overcome these challenges were discussed and shared with other CSOs, Government agencies, institutions and policy makers.

# Glimpses of the Silver Jubilee Celebrations



Inauguration of the Bellary District level Workshop



Farmers and other participants in the District level Workshop at Bijapur



Shri. M V Rajashekharan, Hon. Minister for State for Planning, Gol, addressing the seminar



Shri. N Raghuveera Reddy, Hon. Minister of Agriculture, GoAP, addressing the participants

# 7. DOCUMENTATION AND DISSEMINATION

Documentation and Dissemination (D & D) is among the major tasks of AMEF. It is aimed at sharing of knowledge on alternatives for enhancing learning for enabling agencies to guide practitioners, and to get the attention of policy makers to alternatives. While D & D enables wider sharing of these experiences in public domain, the activity is crucial for strengthening organization's own learning processes.

Besides identifying it as a key activity in the organization and creating an interest in the activity, efforts were focused towards building necessary skills and aptitudes. Also, internal capacity events and basic guidelines/ formats for various common products enabled these processes. Some unique tools have been initiated in the organization to systematize documentation efforts at various levels. Photo documentation has been a deliberately planned process.

Following documents were published in the reporting year:

AME Info: The quarterly newsletter was produced and distributed to selected people interested in AMEF's activities. During the year, four issues of AME Info (Jan - March 2007, April - June 2007, July - September 2007 and October - December 2007) were produced.

Susthira Krishi Chetana, the monthly Newsletter in Kannada produced by Bellary AU to document and share the experiences of farmers, staff and others in promoting SA practices. has become popular among farmers, NGOs and print media in Karnataka for its valuable information. Four issues were produced and distributed.

Parisar Snehi Krishiyattha (Towards Eco-friendly Agriculture), is the quarterly Newsletter in Kannada from Raichur AU to share SA practices and messages to interested people. Three issues of the quarterly newsletter were produced.

Susthira Krishi Kusuma, the monthly Newsletter in Kannada, is being produced by the Bijapur AU. The first issue was published in December 2007 and totally three issues were produced.

'Valavaikum Manavari' (Dryland Gives Life): The Dharmapuri AU started a bimonthly newsletter in Tamil this year. Six regular issues of this newsletter were produced. Apart from the regular issues, three special issues of the newsletter were also produced on AMEF Silver Jubilee Celebration, World Food Day and Experiences of PTD in tapioca.

House Magazine: The in-house monthly magazine with both programme related and personal information, keeps all the staff abreast of what is happening across the Area Units and helps to develop solidarity among the team members by knowing each other well. Twelve issues of House Magazine were circulated.

Selected Readings: These are reading materials carefully compiled which serve as background materials on concepts. One Selected Reading was released during the year -Selected Readings 7 - Erhard Hennig's Secrets of Fertile Soils: Humus as the Guardian of the Fundamentals of Natural Life.

AMEF Policy Advocacy Series is a new series started in the year 2007. This series is meant to include opinions, views and experiences relevant for consideration in the context of policy formulation. These are either based on author's own views or on AMEF's experiences, consistent with the organization's overall vision and mission. The series is meant for wide circulation among those interested in addressing issues related to agricultural development and seeking alternative viewpoints. The first document under this series - 'Agriculture Development Strategy - Some Missing Links', was published in May 2007. The paper was developed based on a discussion between Dr. R. Dwarakinath and Dr. Arun Balamatti, broadcast on Gnyana Vani, IGNOU FM Channel, Bangalore. The second document under this series – 'Some Insights into Agriculture Development Today' was published in July. The third in the series 'Dry Farming as the Second Front in Agriculture Development' was produced in January 2008.



Calendar: A Calendar for the year 2008 focusing on the Farmer Field School methodologies was brought out.

Video: A video on AMEF's experiences in groundnut farming system in Bellary and Chitradurga districts was produced. The video captures the PTD and FFS processes conducted in the DFID supported KAWAD project between 2002 and 2005.

#### Papers presented:

- A paper on "LEISA A Step towards Organic Farming in Semi-arid Regions" by Dr. Arun Balamatti, Ms. T M Radha and Mr. KVS Prasad was submitted to the International Conference on Organic Agriculture and Food Security.
- A paper on "Improving Resource Use Efficiency through SRI A Case of Madanapalli" was presented by Ms. T M Radha, Dr. Rajendra Hegde and Mr. M Ram Prasad in the Second National Symposium on System of Rice Intensification (SRI) in India – Progress and Prospects in Agartala, Tripura. A poster presentation on SRI was also made which won the Best Poster Award in the conference.

AMEF made efforts to share its experiences and learning through both print and electronic media like local Newspapers, AIR and Television.

# 9. OTHER PROJECTS

# 9.1 LEISA India Project

LEISA India programme has entered into a second phase of funding (2007-10). This was a period of proposals, work plans, potential partnerships and budget preparations for the period 2007-10.

# Production of LEISA India Magazine

Four issues of LEISA India magazine were produced during the year. The issues focused on Farmers coming together, Securing seed supply, Healthy produce, people and environment and Ecological pest management.

#### **Feedback**

It is an interesting and worthwhile magazine that provides valuable ideas to take up sustainable development activities at the grass root level Mr. K. Loganathan, NGO in Tamil Nadu

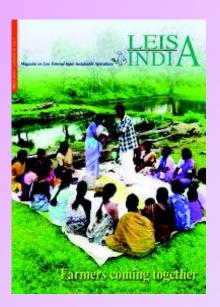
#### New subscribers

I received LEISA India for the first time. It is really very informative and encouraging.

Mr. Indrajit Burman, CPCRI, Assam

LEISA India is rich in information. Put my name permanently on your mailing list

> S. Edison, Asst Director, Agriculture, State Land Use Board, Kerala

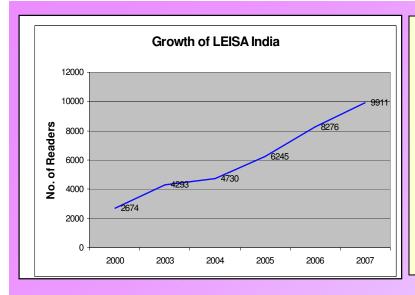


# Readership

The total number of subscribers as of March 2008 is 9918, registering an increase of 16% in the last one year.

Of the total, 95% belong to the Indian subcontinent while 5% of the subscriptions reach outside India mainly to countries like Nepal, Bangladesh, Japan, Pakistan and Bhutan. The subscriptions from South Asian countries increased from 2% to 5% in the last one year. Across various categories, Individuals form the major chunk with 38%, followed by NGOs, academic and research institutions with 25%, 15% and 11% respectively. Strategic efforts to increase the outreach through PR and advertisements continued.

ILEIA's strategy of organising e-conferences and sharing articles before hand has been very useful. The e-conferences were useful in terms of understanding the theme in various contexts and dimensions.



#### Some interesting facts

An author from BAIF takes pride in receiving the second best paper award in their organisation for his article on towards journey sustainability", published in LEISA India.

Some of the SRI experiences published in LEISA India were summarised, translated and published in "Hittlagida", a Kannada regional farm magazine with due acknowledgements

#### LEISA India Consortium

The meeting of the consortium was held during December 2007, and the consortium members discussed about the core group functions and future program in the backdrop of the consortium meeting held in February 2007 (along with Edith and Jorge) focusing on issues like how the consortium could play a role in increasing outreach of LEISA India as well as enhance and enrich the contributors base from their own working regions. The members decided to broad base the representative institutions in the core group, possibly, RDT, OUTREACH and RASTA. Also, they agreed to meet twice in the year.

#### **Documentation Programme**

A process document "Documentation in practice" published based on the experience of the two-year documentation and communication programme. This was shared with selected partners. Based on this, there have been requests for organising such trainings on documentation and communication. Capacity building on Documentation and Communication, open to Civil Society Organisations is planned for April and August 2008.



### Building LEISA Alliances

The objective of the LEISA India programme is to build up the LEISA movement moving beyond magazine production. It was thought that if LEISA India has to become a movement it has to be built in small 'steps'. One idea was to move towards building unstructured alliances of LEISA enthusiasts. The assumption was, if such alliances happen in various parts of the country, facilitated by the consortium partners, possibly, further strengthening of the LEISA knowledge use and sharing would take place. In an attempt to make a modest beginning in this direction, a LEISA Enthusiasts meeting was organised on 19 January, 2008. The meet was organized to enable face-to-face interaction and strengthen the commitment towards LEISA. The meet included around 40 participants (farmers, NGOs, Academics, and Researchers etc) from the South Indian States of Andhra Pradesh, Tamil Nadu and Karnataka, A fact sheet cum calendar was brought out. Participants shared interesting stories on the way they used the magazine. Being the first of its kind among LEISA enthusiasts, it helped to create a **dynamic connect** between LEISA team, readers and contributors.

# 9.2 Bio-Farms for Livelihood Development of Resource Poor Farmers

The project on Bio-Farms for Livelihood Development of Resource Poor Farmers, supported by Department of Science and Technology (DST) concluded on 31 March 2008.

The Project was implemented in Tiruchi Area Unit with 20 participant and 80 observer farm families over 3 years. The progress in the project was rated as very good in the GMW meeting held in August 2007.

# 9.3 Urban Horticulture & Peri Urban Agriculture Project

The RUAF-CFF Project (Resource Centres on Urban Agriculture and Food Security-Cities Farming for the Future) is designed to contribute to urban poverty reduction, urban food security, improved urban environmental management, empowerment of urban farmers and participatory city governance by capacity development of local stakeholders in urban agriculture and facilitating participation in Multi-stakeholder Policy formation and Action Planning (MPAP) on urban agriculture, including safe reuse of urban organic wastes. The project is global in scale involving 20 cities in 14 countries. IWMI (International Water Management Institute) is the South Asia and Southeast Asia Regional Coordinator of the RUAF-CFF project. Bangalore is selected as the Second Pilot City after Hyderabad. AMEF is selected for facilitating activities in Bangalore.

The inception meeting gave stakeholders an exposure to the objectives of the project and the roles they can play as enabling team members. Identification of their roles as enablers, implementers and policy mobilisers was done for urban and peri urban area (Magadi). MPAP workshop for stakeholders helped in familiarizing the stakeholders to the project and its needs. A core group of interested individuals, eminent personalities and institutions have volunteered to be part of the 'enabling team'.

Focus Group Discussions (FGDs) with residents in select areas of JP Nagar, Banashankari and Jayanagar have brought out the 'constraints' for urban horticulture such as lack of availability of seed/seedlings/planting material, water, training and training materials, lack of networking and skilled help. The activities evolved to deal with these constraints are, supporting self-motivated initiatives by the residents, exploring income generation opportunities for the urban poor through nursery management and skilled help as also the residents' associations identifying and enrolling potential 'Malis' (gardeners) for supporting urban horticulture activity.

Four meetings were held with the Residents Associations to finalise the pilot project proposal. Members of the Residents Association were taken for an exposure visit to a successful terrace garden. Awareness about the urban horticulture activity and the pilot project was discussed at the Health camp and Annual Day in JP Nagar and meeting of Abhyudaya in Banashankari.

AME Foundation set up a stall in the Horticultural Show from 8-15 August 2007 at Lalbagh. The posters exhibited highlighted possibilities of Terrace gardens, strengthening production systems in peri-urban areas to meet food needs of growing urban population, recycle urban and peri-urban wastes for productive use in agriculture.

Training events on Terrace Gardening were organised at AMEF Office. Publicity was given through press release, phone calls and emails to the visitors to the exhibition stall of Horticultural Show. The training events covered all aspects of home gardening from preparation of pots, seeds and seedlings, water and nutrient management, plant protection and harvesting.

AMEF participated in the RUAF Programme committee meeting in Doorn, The Netherlands, from 14 to 19 February 2008. Mr. K V S Prasad and Mr. Sebastian attended the meeting and shared the progress of the project.

Peri Urban Agriculture (PUA) in Magadi: The conceptual framework of PUA activities in Magadi is focusing on production, solid waste management and marketing with linkages among several stakeholders. In the present pilot project phase, the production aspects are strengthened through PRA, FFS and other studies in the selected clusters of villages. The producer consumer linkages will be addressed during the subsequent phases. Progress made in Magadi is in conducting an exploratory study, meetings of enabling team, selection of villages PRA orientation, PRAs in villages and initiation of FFS. Initiative is also made in the area of solid waste management through exchange visits to Suryapet in Andharapradesh, training on solid waste management for the SHGs.

AMEF has also submitted proposals for the a) Dissemination city - Bangalore, and b) Pilot city - Magadi seeking to play a greater role of a resource agency in the project from the present role of consultant.

# 9.4 DBT Project - Promoting Simple Biological Options to Improve Livelihood of SC/ST Families in Kolar District

The DBT supported project is initiated in Bangarpet taluk in the month of February 2007 to assist SC/ST and resource poor farm families for improving their livelihood through improvements in farming and livestock rearing. The project emphasises promotion of simple biotechnologies, vermicomposting, Azolla and fodder cultivation. The project is of two-year duration (February 2007 to January 2009).

Project activities are initiated with 233 farm families (76 % of SC, 9.4 % ST and 14.6 % of other weaker sections), organized in to 13 groups in 10 villages. In all, 29 training events were organised to build awareness on fodder production, vermicomposting and Azolla cultivation, to project beneficiaries and other members of the community in the selected villages. The staff of the project were trained on sustainable agriculture practices and FFS methodology for two weeks.

Different grass and legume fodder species viz., signal grass, buffel grass, Napier grass, Guinea grass, Styloxanthus hemata and Sesbania grandiflora, are introduced. Totally, 64 farmers have started cultivating at least one among them. Six demonstrations were conducted on different sustainable agriculture (SA) topics, viz., effect of combination of SA practices in ragi, use of Azolla in paddy, IPM in tomato and paddy. Signal grass is performing better in dry lands, whereas Napier grass and Sesbania are performing well under irrigated condition.

Among the project farmers, 72 farmers have started the vermicompost production units. In all, 71 farmers having livestock and poultry have begun Azolla production and utilisation as feed supplement. Farmers have realised the increase in milk yield by 250 ml per day per cow, after 15 days of feeding with Azolla @ 1 kg per day. The increased lactometer reading of the milk at the milk collection booths has fetched the farmers a higher price of Rs 0.75 per liter.

Eight Farmers in the project villages have saved Rs.200 per acre on an average on weeding (one weeding reduced) by introducing Azolla in their paddy fields. Application of Vermicompost at 500 kg /acre to ragi crop increased the grain yield by 17 per cent (16 q per acre) compared to control (13.33 g per acre). The farmer adopting IPM practices like pest monitoring, use of neem leaf extract (5%) in tomato, could save Rs. 1000 per acre in his demonstration field by spraying the botanicals in place of chemicals.

The annual progress of the project received appreciations by the DBT task force.

The current projects supported by various agencies apart, AMEF is undertaking training programs, mainly on FFS, on request from various agencies. The Dharmapuri unit is extending technical support to SCINDeA network in Tamil Nadu. Kolar unit, together with Area Units in Andhra Pradesh is extending FFS support to GUIDE, an NGO working in Nagayalanka in Krishna district. The program is supported by CONCERN-India. Similarly, the Central Unit, with resource persons from Area Units is offering FFS training to NGOs-ARAVALI in Jaipur, Rajasthan, and SEDS and Timbaktu in Anantapur.

# 10. VISITORS

Mr. Devender Sharma, distinguished policy analyst, visited AMEF, Bangalore on 9 August 2007 and shared his views on agriculture policies.

Mr. Sam Joseph, Consultant on Participatory Methodologies and SRI, visited AMEF, Bangalore on 22 August 2007

Dr. Yianna Lambrou and Dr. Francesca Mancini visited AMEF, Bangalore for discussions on Gender and Climate Change on 25 September 2007

Dr. Daniel Gustafson visited CU for discussing program matters with AMEF staff on 25 September 2007

Mr. Samarth Solanki, Head Staff, CEE, Gujarat, visited Raichur Unit and its village along with CEE staff and farmers.

Shri. V Balaji Rao, Coordinator, DAATTC, Mahabubnagar and Sri Ramakrishna Rao, Deputy Director of Agriculture, Mahabubnagar visited the Mahabubnagar AU. They discussed on possible collaboration of AMEF with ATMA project to build capacities of poor farmers in the district.

Rural Development Commissioner, 60 district mandal officials, 60 technical assistants from EGS scheme, including District Project Director, DWMA, visited Kothapalli in Mahabubnagar for knowing how to implement soil conservation activities through EGS scheme.

Mr. Naveen Jha, Deshpande Foundation, Hubli, visited Raichur AU and its working areas to know more about AMEF's work.

Dr. A. Rajanna, Director of Agriculture, Karnataka visited Raichur AU in October and interacted with farmers and AU staff. He appreciated AMEF's efforts in p[promoting Azolla in paddy. An action plan was developed with Department staff to promote Azolla on around 200 acre in each taluk. After his visit, around 1000 acres of paddy has come under Azolla, which was mobilized from the cluster villages.

Ms. Meenu Kapur, FAO, along with Shri. S L Srinivas, Treasurer and Dr. Rajendra Hegde visited the Madanapalli AU and Mittamalapalli cluster village in October. They interacted with farmers on savings, RF management and SA adoption. Improvement of financial systems, especially on reducing cash transactions at Unit level, was suggested.

Mr. N K Sanghi, Advisor of OUTREACH and WASSAN and Mr. Ravikumar, Executive Director, OUTREACH visited the Madanapalli cluster village on 15 December and interacted with eco-farmers. ToF Facilitators and ENP chief functionaries.

# 11. STAFF POSITION (as on 31 March 2008)

Ban	igalore			
1	Arun Balamatti	Executive Director		
2	Prasad KVS	CPO-Doc.& Dissemination cum Managing Editor		
3	Rajendra Hegde	CPO-Programme Co-ordination		
4	Ravindranath Reddy	CPO-Training		
5	Radha TM	Editor-LEISA India		
6	Nivedita Mani	Associate CPO - Information Specialist		
7	Devi KA	Secretary - Programme		
8	Asha R	Secretary - General		
9	Adisesha Balaji NR	Asst. Administrative Officer		
10	Shobha Maiya	Secretary - Information & Doc.		
11	Vijayalakshmi S	Secretary - Accounts		
12	Ramu K	Driver		
13	Gopalakrishnan R	Driver		
14	Narayana N	Attendant		
15	Lalitha N	Cook cum Cleaner		
16	Chikkanna	Attendant		
17	Kantha A	Cleaner cum Cook		
18	Ramesh H	Attendant		
	lanapalle			
19	Ram Prasad M	Acting Area Unit Co-ordinator		
20	Malleswara Rao SSN	APO-IFS/NRM		
21	Hemalatha NR	APO-IFS/NRM		
22	Kavitha S	Secretary cum Accountant		
23	Ravindranath N	Driver		
24	Ranga Raju V	Attendant		
	abubnagar			
25	Aneel Kumar	Acting Area Unit Co-ordinator		
26	Nageswara Rao C	APO-IFS/IPM		
27	Nageswara Reddy	APO-IFS/IPM		
28	Raghavendra JB	Secretary cum Accountant		
29	Ramadasa Reddy N	Driver		
30 <b>D</b> oi:	Kullayappa DC	Attendant		
Raid		ADO IFO/AIDM		
31	Kolhar BC	APO-IFS/NRM		

Bella	O K/V									
32	Chandrashekar S Kallimani	Asting Aves I hait Co andington								
		Acting Area Unit Co-ordinator								
33	Sanjeev N. Joshi	APO-IFS/IPM APO-IFS/NRM								
34	Megeri Karibasappa									
35	Sangeeta R. Patil	APO-IFS/GEC								
36	Khaja Mohinuddin A. Jamkhandi	APO-IFS/NRM								
37	Prasanna V	Secretary cum Accountant								
38	Manjunath B Driver									
39	Babu	Attendant								
-	Bijapur									
40	Shreesail N. Doni	Area Unit Co-ordinator								
41	Sateesh V. Pattepur	APO-IFS/NRM								
42	Bhavani N	APO-IFS/GEC								
43	Sheshagiri L. Desai	APO-IFS/NRM								
44	Nandakishore AR	Secretary-cum-Accountant								
45	Dyapur BS	Attendant								
46	Sadoba Maruti Kanse	Driver								
Tiru		A DO JEO/AJDAA								
47	Gandhimathi K	APO-IFS/NRM								
48	Lalitha N	APO-IFS/NRM								
49	Manimekalai	APO-GEC								
50	Hemalatha G	Secretary cum Accountant								
51 50	Balaraman G	Driver								
52 Dha	Pouline Selvi RL	Attendant								
	rmapuri	Avec Unit Co audinotos								
53 54	Diraviam J Mathumalar G	Area Unit Co-ordinator  APO-IFS/GEC								
	Kuttimani R	APO-IFS/GEC APO-IFS/NRM								
55 56		APO-IFS/IPM								
57	Jayakumar T Jayasundara Naidu	Secretary cum Accountant								
58	Kandasamy B	Driver								
59	Jawahar Krishnaraj	Attendant								
Kola		Altenualit								
60	Nagana Gouda M	Programme Co-ordinator								
61	Ranganath Babu	Area Project Officer								
62	Joshi BV	Area Project Officer								
63	Basavaraj B. Awati	Driver								
64	Manjunatha PY	Attendant								
04	Manjanatra i	Attondant								

# 12. BUDGET

#### 12.1 Sources of funds

The Foundation has completed sixth year of accounting. AME Foundation received financial support for specific programmes from the agencies as below:

Table 9 Statement of budget, expenditure and funds received 2007 – 08

(Amount in Rs.)

Projects	Opening Balance	Funds Received	Total	Expenditure	% Expenditure	Ending Balance
FAO	19,198,677.50	23,352,470.50	42,551,148.00	36,012,896.00	84.63	6,538,252.00
LEISA India	1,035,730.05	4,839,089.73	5,874,819.78	3,636,104.96	61.89	2,238,714.82
LEISA India	1,149,730.35	-	1,149,730.35	498,105.00	43.32	651,625.35
Consortium						
DST	208,944.00	2,941.00	211,885.00	462,104.00	218.09	(250,219.00)
DBT	1,265,000.00	17,108.00	1,282,108.00	1,160,304.00	90.50	121,804.00
IWMI	336,955.00	457,044.00	793,999.00	274,610.00	34.59	519,389.00
Triad	51,937.50		51,937.50	11,781.00	22.68	40,156.50
Foundation						
AMEF own	1,974,252.13	1,837,600.98	3,811,853.11	182,039.00	4.78	3,629,814.11
Funds						
Total	25,221,226.53	30,506,254.21	55,727,480.74	42,237,943.96		13,489,536.78

#### 12.2 Budget utilization

The budget utilisation under respective projects during the year is given below:

FAO: The AMEF-FAO partnership project on "Promoting Livelihood Improvements in Dry land Farming on the Deccan Plateau" came into effect from 11 August 2004. However, the programme implementation started from January 2005. An amount of Rs. 191.98 lakh was carried forward from the vear 2006-07 and Rs.233.52 lakh was received during the year. The total available fund for the year was Rs. 425.51 lakh, of which Rs. 360.12 lakh (85%) has been utilised.

**LEISA India:** AMEF and ILEIA, The Netherlands, have entered the second phase of funding (2007-10) in the collaborative project to produce and distribute the Indian edition of the LEISA magazine on Low External Input and Sustainable Agriculture on a quarterly basis. An amount of Rs. 58.74 lakh was available for different activities during the year and an amount of Rs. 36.36 lakh (62%) has been utilised.

LEISA India Consortium: The Consortium, also funded by ILEIA, supported different documentation and dissemination activities through AMEF with an amount of Rs.11.49 lakh during the year and an amount of Rs. 4.98 lakh (43%) has been utilised.

DST: The project supported by DST (Bio farms for livelihood development of small and marginal dry land farmers) was concluded on 31 March 2008. The utilisation on the project activities during the year 2007-08 was Rs. 4.62 lakh. The excess spending of Rs.2.50 lakh will be reimbursed by DST.

DBT: The Department of Biotechnology project on simple biotechnology to be promoted with SC and ST families in Kolar district had an outlay of Rs. 12.82 lakh for the year and Rs. 11.60 lakh (91%) has been utilised for programme activities.

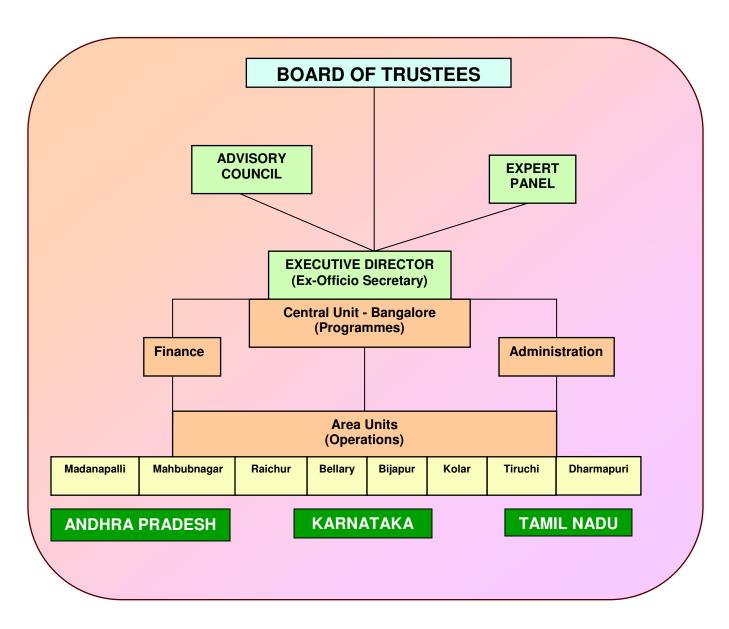
IWMI: AMEF is collaborating with IWMI, Hyderabad, for promoting urban horticulture and peri-urban agriculture project with Bangalore as the focal city. An amount of Rs. 7.94 lakhs was available and Rs. 2.74 lakh (35%) was utilised for the project activities during the financial year.

TRIAD Foundation: TRIAD Foundation, New York, has supported AMEF for promoting SRI method of paddy cultivation with an amount of Rs. 0.52 lakh. An amount of Rs. 0.11 lakh (23%) was utilised for SRI promotion activities.

The overall annual transaction for the year ended 31 March 2008 was to the tune of Rs. 4.22 crore. The overall expenditure for the Foundation, as per the balance sheet, is Rs. 4.50 crores, which is almost on par with the utilisation during the previous year (Rs. 4.62 crore).



# **ORGANOGRAM OF AME FOUNDATION**



# **AMEF Operational Areas**

#### **Central Unit**

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Website: www.amefound.org

#### **Area Units**

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# Shri S. L. Srinivas, Treasurer

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# Padmashri Aloysius Prakash Fernandez

Executive Director, MYRADA, Bangalore

# Dr. Vithal Rajan

Chairman, Governing Body, Confederation of Voluntary Associations, Hyderabad

# Padmashri Dr. M. Mahadevappa

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# Dr. K. Shivashankar

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# Dr. C. Ramasamy

Vice Chancellor, TNAU, Coimbatore

# Dr. P.G. Chengappa

Vice Chancellor, UAS, Bangalore

# Dr. Arun Balamatti, Member 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.