

INDIA



Agriculture Man Ecology (AME) Foundation

The mission and vision of AME are empowering small-scale and marginal dryland farmers in degraded ecological situations in the Deccan Plateau zone by improving their livelihoods, addressing gender and social equity concerns and promoting ecological farming alternatives.

Map

The initiative is located on the Deccan Plateau of India. Agriculture Man Ecology Foundation (AMEF) works in the Kolar, Dharwad and Magadi areas in Karnataka and the Dharmapuri and Pennagaram areas in Tamil Nadu, South India.

The climate of the is semi-arid in the north but tropical elsewhere. Rain falls during the monsoon season from about June to October, and heavy rainfall results in landslides, flash floods and crop damage. These events can have major impacts on society, the economy and the environment, especially impacting small-scale farmers in the semi-arid regions.



Context



The majority of the farming population own less than one hectare of land and live and work in fragile environments, with little capital for investment and few off-farm employment opportunities. The major economic activity in these areas is agriculture, with around 40% of families dependent on income through agriculture and allied activities.

The dominant farming system artificial fertilizer-based cropping, which is harmful for the soil and reduces resilience.



Description

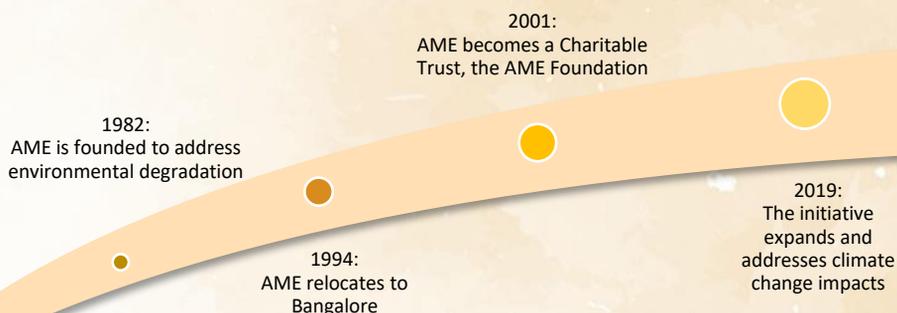
The initiative is supported by AME, which has successfully promoted **Low External Inputs** and **Sustainable Agriculture (LEISA)** methods of **farming and Participatory Technology Development (PTD)**. The organisation helps farmers to adapt and sustain their livelihoods despite challenging climatic conditions through better **management of natural resources** by making better choices of crops, cropping systems and farming systems and enable them to adopt the **ecological agriculture practices**. The initiative strives to foster **local-level farmer institutions** and develop their capacities to sustain the adoption of ecological agriculture.

The systematic combination of **in-situ rainwater management**, **soil fertility** improvement and crop and **cropping practices** is supported by activities like generating and recycling **manurial biomass** and resource conserving methods like the **System of Rice Intensification (SRI)** and have been adopted by farmers in irrigated paddy, rain fed paddy, finger millet and red gram production. Farm families have integrated supplementary income generating activities into their livelihood strategies, achieving greater sustainability.

The approach and methods that have underpinned the transformation of the production systems include guiding farmers through season-long **Farmer Field Schools (FFS)**, building the capacities of **rural youth** in sustainable agriculture, enhancing the capacities of other NGOs in Sustainable Agriculture and FFS to enable scaling up of **agroecological approaches** over a broader area, and wider dissemination of **field experiences** on ecological agriculture.



Trajectory





Results and Benefits



Integrated approaches to pest and disease management are used in the **mixed cropping systems**, combined with holistic **soil and water conservation**. Azolla is cultivated on ponds for animal feed and as a water purifier. Azolla pits produce fodder for cattle, providing farmers with improved milk yields and incomes.

Techniques used by farmers to **enhance soil fertility** and **water efficiency** include **vermicomposting, composting and mulching**. Farmers select and **keep their own seeds** and some treat their seed with Trichoderma and rhizobium to enhance biotic processes in the soil. Improved tilling and sowing methods and intercropping enhance the **resilience of farming systems**.



250 farm families cultivate vegetables in **kitchen gardens** and produce brinjal, tomato, chili, cluster bean, radish, coriander, methi, palak, bhindi, beans, ridge gourd and bitter gourd in their backyards, and are thus able to **consume organic and fresh vegetables**.

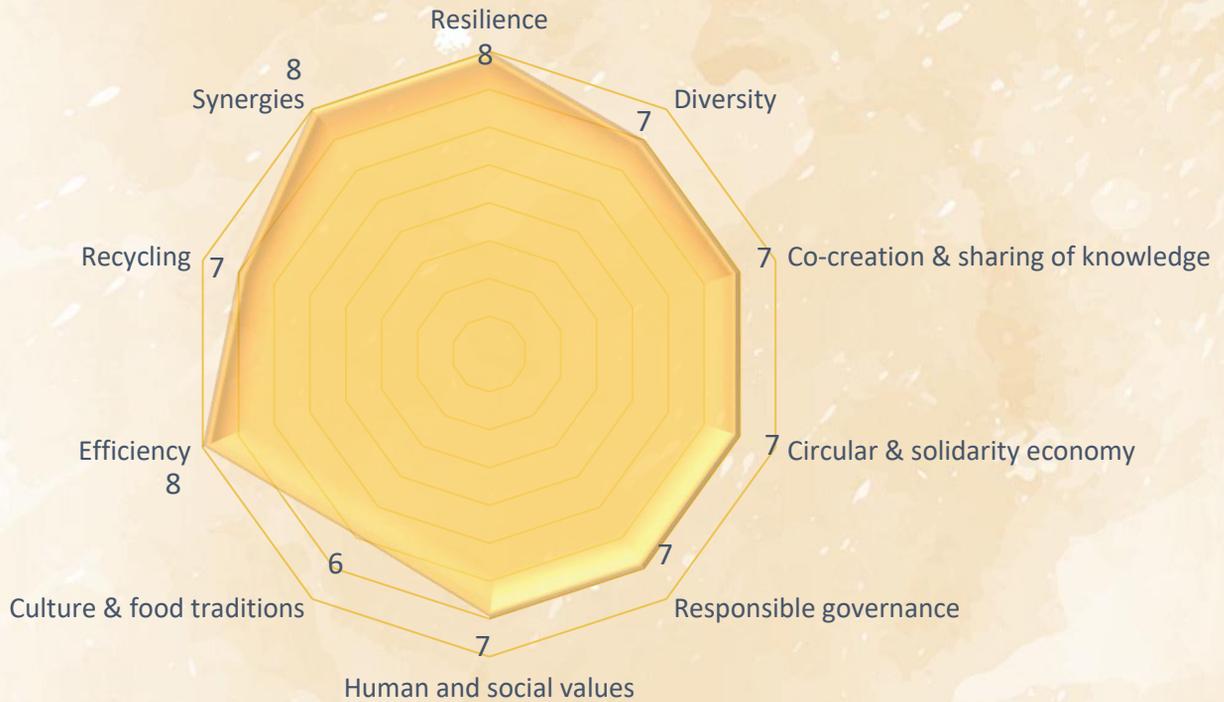


Farmers are cultivating **climate resilient, nutritionally rich millet** crops that are more resilient than other grain crops. Good harvests of coarse millets were achieved despite of a severe 45 days drought during the growing season.



The farmers have learnt how to manage their fields **without the use of poisonous chemicals**, have access to **credit on reasonable terms**, a ready **market for their produce** and association with other like-minded farmers enhancing their **power of collective bargaining**.

Lessons learned and reflected FAO principles



Resilience: 8

Improved natural resource management and enhanced crop biodiversity has increased crop productivity and farm incomes and reduced costs of cultivation. Farmer collectives share resources and facilities, create new value adding enterprises and manage seed and fodder requirements.

Human & social values: 6

Common values of the participating small-scale and marginal farmers underpin the initiative, which promotes equity amongst the most marginal land users. The capacities of rural youth have been developed as Sustainable Agriculture Promoters.

Diversity: 7

Enhanced natural resource management in rain fed and irrigated rice areas has maintained ecosystems. Revival of farmer-preferred local varieties has retained agrobiodiversity.

Culture & food traditions: 6

Food and nutritional security are enhanced by the initiative. Eco Farmers Groups (EFGs) grow and consume nutritious food using traditional kitchen garden seeds. Many farmers are self-reliant with regard to seed, share seed with other farmers.

Co-creation & sharing of knowledge: 7

The initiative has been built upon farmers' practices and knowledge. Participatory and empowering education processes like Farmer Field Schools have enhanced the knowledge of farming communities.

Efficiency: 8

The farming systems of the participating farmers are more productive based on effective soil and water conservation, nutrient recycling and diversification. Less external inputs are required than previously, and productivity is increased.

Synergies: 8

Enhanced crop productivity has been achieved through alternate farming approaches that have strengthened food systems in a sustainable manner. Retaining soil and water resources has sustained food production systems and stimulated healthy soil biology.

Responsible governance: 7

AME Foundation is governed by a Board of Trustees, who delegate operational responsibilities to the Executive Director and Secretary. Participation of all stakeholders in needs assessment, planning, monitoring and evaluation enables the initiative to operate in a decentralized structure.

Recycling: 7

Plant nutrients are recycled via composting and vermicomposting. Farmers grow their own green fodder use manure to enrich the compost. They retain and exchange seeds of open-pollinated crops.

Circular & solidarity economy: 7

Participating communities have evolved market avenues to harness the benefits of collective economic power. Experiential learning has enabled farmers to reap the economic benefits of collective marketing.

Contacts and Bibliography

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The Avaclim project aims to create the necessary conditions for the deployment of agroecology in arid areas.

For more information : www.avaclim.org

Financial partners:



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