

RRAN Karnataka



Akkadi Saalu Bele Model farm, Mulbagal Karnataka
Zero Chemical Fertiliser, Zero Chemical Pesticides
Zero Ground Water

Revitalising Rainfed Agriculture Network Male Besaya Vedike – Karnataka



Revitalising Rainfed Agriculture Network

A. Context

“16 of the 24 ‘permanently drought prone’ districts in India are in Karnataka” – CRIDA.

Karnataka is largely a dry state. According to the Central Research Institute of Dryland Agriculture, 16 of the 24 ‘permanently drought prone’ districts in India are in Karnataka¹. ICRISAT findings say Karnataka has the second largest area in India under rainfed agriculture². The resulting social crisis has been documented by the DM Nanjundappa Committee report on regional imbalances in the state using Composite cumulative development indices and cumulative deprivation indices and not surprisingly, the most backward districts identified in the report correspond with the rainfed, dry areas of the state and yet the issue has failed to gain the importance that it should.

Out of 10 agro-climatic zones in Karnataka, 5 zones can be classified broadly as drought-prone areas, which cover 16 districts and 106 Taluks of the state. The annual rainfall in these areas ranges between 450 mm and 3,932 mm. Because of the fluctuation in rainfall, the crop yield under rain fed cultivation varies across the districts. These regions have severe problems like poverty, malnutrition, water scarcity, land degradation and poor infrastructure facilities (Waniet *al*, 2009).

B. RRAN goals

RRAN aims to improve rural livelihoods of small and marginal farmers in Rainfed areas through sustainable agricultural practices with the Panchayat at the centre of transformation. Primary focus areas for transformation include:

- Improving household economy of farmers
- Better Soil health at the earliest
- Continuous supply of cattle fodder
- Food and Nutritional security for farming households
- Extended livelihood opportunities to involve almost the whole year
- Direct marketing opportunities

¹<https://www.thehindu.com/news/national/karnataka/16-of-24-eternally-drought-prone-districts-in-country-are-in-karnataka/article25784373.ece>

²<https://www.icrisat.org/a-complete-farming-model-1/>

C. RRAN principles

At the core of RRAN's approach is the following list of principles that inform our activities in the state

1. **Social Justice** – Rooted in intersectionality and self respect of the most vulnerable farmers
2. **Promoting Farmer protagonists** – especially women leaders and transforming local cultures
3. **Panchayats at the center of transformation** – Leveraging the power of the 73rd amendment while promoting the subsidiarity principles of bottom-up decision making at the panchayat level
4. **The Science of alternatives** – to promote science and reason in the creation of alternatives in the agriculture sector (from field innovations to alternate market spaces). The focus is to ensure farmers develop capabilities and skills for scientific enquiry into every aspect of farm management including soil, crops, cattle and water use.
5. **Building on the legacy of existing farmer's networks and local organisations** to strengthen collaborations across the state and to promote the co-ownership of RRAN in Karnataka
6. **Contextualise the RRAN work in the larger reality of Climate Change** to ensure farmers make the best of climate mitigative opportunities while transitioning into sustainable agriculture practices.
7. **Fair Market** for farmers to be able to transact in their own interest with adequate knowledge of relevant facts and mutually agreed price for their produce.

D. Main Achievements

1. RRAN Karnataka operational in six districts with three more districts to be covered in the first quarter of 2021

Established fully functional networks in six districts of Karnataka with farmers, civil society groups, and farmer's organisations furthering the RRAN agenda. With the objective of strengthening the bottom-up process of transformation in rainfed districts, RRAN is working through individual and collective agency of farmers at the level of the grama, taluk and zilla panchayats. On establishing the RRAN in districts through existing network opportunities, there have been six districts where active network activities have been started. Mobilization of farmers for advocacy on issues of rainfed farmers has been initiated in Kolar, Ramnagara, Chamarajnagar, Tumkur, Chickmagalur, and Mandya. Village and district-level accountability initiatives like petitioning, access to MGNREGA, and other schemes have started to pick up.



RRAN's networking in Rainfed districts are strengthened through field training on sustainable agriculture

2. Rejuvenating Akkadi Saalu

Rejuvenated the long last practice of 'Akkadi Saalu', a locally specific, diversity based ecological farming in five rainfed districts and popularized it in the governance, academic and farmer's circles in the state. The project encouraged fifty farmers in each of the five districts to take up Akkadi Saalu cultivation in 2020 and advocated with the Government of Karnataka for the promotion of the same in rainfed districts of the state. Akkadi Saalu model farms were established in all the five districts and scientific studies have been conducted to enquire into the social, ecological, economic and cultural impacts of this traditional practice of agriculture. A detailed report on Akkadi Saalu can be found appended. The campaign brought at least ten progressive organizations to either help their farmer constituency adopt the Akkadi Saalu to bring back traditional methods of multi or the mixed cropping that could assure food security or promoted the campaign through their own networks in the state. Reviving the biodiversity-based organic farming based Akkadi system has helped yields in multiple crops, visibly improved soil fertility, increased pollinators in the farm and cattle fodder besides reconnecting farming households to their traditional cultures of biodiverse farming.

Recognition of women's role in agriculture was highlighted through the campaign as Akkadi promotes roles for women through all its processes of cultivation. It was also seen that the improved participation of women may have also contributed to widening the space for women in decision-making and empower them. Initial observations reveal the Akkadi system of diversifying crops can be an effective

ಅಕ್ಕಡಿ ಸಾಲು ಬೆಳೆಸಿ

ಸಮೃದ್ಧ ಜೀವನ ನಡೆಸಿ



ಉಪಯೋಗಗಳು:

- ಕುಟುಂಬಕ್ಕೆ ದೈನಂದಿನ ಬಳಕೆಗಾಗದ ಊಟಕ್ಕೆ ರಾಗಿ, ಸಾಂಬಾರಿಗೆ ಬೆಳೆ ಕಾಳುಗಳು, ದೀಪ ಮತ್ತು ತಲೆಗೆ ಎಣ್ಣೆ, ತರಕಾರಿ ಮತ್ತು ಪೂಜೆಗೆ ಹೂವು ಮುಂತಾದವುಗಳನ್ನು ಒದಗಿಸುತ್ತದೆ.
- ಮಿಶ್ರ ಬೆಳೆಗಳಲ್ಲಿ ಅವುಗಳ ಬೇರುಗಳ ರಚನೆ ವಿಭಿನ್ನವಾಗಿರುವುದರಿಂದ ಹೊಲದಲ್ಲಿ ಬಿದ್ದ ಮಳೆ ನೀರನ್ನು ಹಿಡಿದಿಟ್ಟುಕೊಂಡು ತೇವಾಂಶವನ್ನು ಸಮರ್ಪಕವಾಗಿ ಉಪಯೋಗಿಸಿಕೊಳ್ಳುವುದು.
- ಏಕದಳ ಮತ್ತು ದ್ವಿದಳ ಧಾನ್ಯಗಳನ್ನು ಬೆಳೆಯುವುದರಿಂದ ಮಣ್ಣಿನ ಫಲವತ್ತತೆ ಹೆಚ್ಚುವುದು.
- ಜಾನುವಾರುಗಳು, ಕುರಿ ಮತ್ತು ಮೇಕೆ ಮುಂತಾದವುಗಳಿಗೆ ಪ್ರತ್ಯೇಕ ಮೇವುಗಳನ್ನು ಒದಗಿಸುವುದು (ಹುಲ್ಲು, ಜೋಳದ ಕಡ್ಡಿ, ಹಾಗೂ ತಳು)
- ಮಿಶ್ರ ಬೆಳೆ ಪದ್ಧತಿಯಿಂದ ಹೊಲದಲ್ಲಿ ಮುಟ್ಟಿಗೆದೂರಕಿ ಮಣ್ಣಿನ ಫಲವತ್ತತೆ ಹೆಚ್ಚಾಗುವುದು.



- ಪ್ರಕೃತಿ ವೈಪಲ್ಯದಿಂದ ಮಳೆ ಬರುವ ಪ್ರಮಾಣದಲ್ಲಿ ಏರುಪೇರಾದರೆ ಒಂದಲ್ಲಾ ಒಂದು ಬೆಳೆ ರೈತರ ಕೈ ಹಿಡಿಯುವುದು ಖಂಡಿತ.
- ರೈತರಿಗೆ ತಮ್ಮ ಜಮೀನಿನಲ್ಲೇ 5-6 ತಿಂಗಳು ಉದ್ಯೋಗ ಒದಗಿಸುತ್ತದೆ.
- ವಾತವರಣದಲ್ಲಿ ತಾಪಮಾನ ಹೆಚ್ಚಾದರೆ ಎತ್ತರವಾಗಿ ಬೆಳೆದ ಬೆಳೆಗಳು, ಗಿಡ್ಡವಾಗಿ ಬೆಳೆಯುವ ಬೆಳೆಗಳನ್ನು ಸೂರ್ಯನಿಂದ ರಕ್ಷಿಸುತ್ತದೆ.
- ಹರಳು, ಸಾವಿವೆ ಹಾಗೂ ಹೊಲದ ಸುತ್ತ ಹುಟ್ಟಿಳು ಹಾಕುವುದರಿಂದ ಉಳಿದ ಬೆಳೆಗಳಿಗೆ ಕೀಟ, ರೋಗ ಬಾಧೆಯನ್ನು ನಿಯಂತ್ರಿಸುತ್ತವೆ. ರಾಗಿ ಹೊಲಕ್ಕೆ ಜೀವಂತ ರಕ್ಷಣಾ ಗೋಡೆಯಂತೆ ಕೆಲಸ ಮಾಡುತ್ತದೆ.
- ಅಕ್ಕಡಿ ಸಾಲು ಪದ್ಧತಿ ಅಳವಡಿಸಿಕೊಳ್ಳುವುದರಿಂದ ರೈತರು ಸ್ವಾಲ್ಪಂಬಿಗಳಾಗಿ ಜೀವನ ನಡೆಸಬಹುದು.

“ಅಕ್ಕಡಿ ಅಹಾರದ ರಕ್ಷಣೆ”

ಹೆಚ್ಚಿನ ಮಾಹಿತಿಗಾಗಿ ಸಂಪರ್ಕಿಸಿ : 7348904494



PC - Sahaja Samrudha

way of increasing food production to the growing influence of climate change and good for our sensitive agro-ecosystems.

- Established model Akkadi farms in five rainfed districts.
- Built a strong and working partnership with organisations in five districts.
- Significantly improved the visibility of the Akkadi Saalu cultivation among farmers, civil society organisations and district level agriculture officers.
- Created farmer resource persons with the capacity to train other farmers in their districts.
- Built an inter-district network of farmers and civil society organisations.
- Established a good rapport with academics in agriculture universities.
- Influencing upon the state government to adopt measures to promote biodiversity based organic farming like Akkadi saalu.
- Established communication capacity for farmers to directly reach out to the world about their learning and achievements.

- Established communication channels for farmers in different districts to share and learn from each other on challenges and opportunities of Akkadi kind of cultivation in rainfed environments.
- Initiated scientific analysis on the Akkadi ecosystem
- Expanded the focus of work to include soil, seed sovereignty, best practices in farm level management systems.
- The economic analysis of biodiversity based organic farming.

- The continuity between Akkadi as a choice for Kharif and the subsequent Rabi or Hingaru bele has been established
- The entire process has been video documented for posterity
- Have inspired the head of the Horticulture department of the Bagalkot agriculture university to write a booklet on Akkadi Saalu.
- Projected RRAN, our work in the state and Akkadi campaign on mainstream electronic media including interviews of farmers and field level interventions on Doordarshan

State level webinar on Akkadi Saalu in collaboration with Government of Karnataka

SOIL

Revitalising Rainfed Agriculture Network and SOIL present

A demonstrative web training on

AKKADI SAALU AGRICULTURE

Its importance and management

10.30 AM to 1.30 PM, 6th August, 2020
<https://zoom.us/j/92970457423>.

Dr. Ashok Sangappa Alur
 Director, Dept of Horticulture, UHS, Bagalkote

Prabhakara
 Farmer, Mulbagal, Kolar

Srinivasu P
 Founder, SOIL

Hosted in Kannada by
Prof. Kshithij Urs
 RRAN



With zero chemical inputs, Akkadi Saalu promotes bio markers as indicators of Crop health. The myth that it requires three years of ecological farming to undo the impact of chemical farming has been disproved through Akkadi cultivation. The picture on the right is of the healthy stalk of Avare Kai plant (Hyacinth Bean).

3. Reshaping advocacy to suit sustainable benefits to rainfed farmers

Through the Akkadi Saalu experience, RRAN Karnataka has reorganized its collaboration with the state and academic institutions to offer policy directions and knowledge systems for further enquiry into newer potentials of improving farmer centric rural economy through systemic changes that promote diversity based ecological farming.

4. Making Panchayats work for rainfed farmers

Established collaborative relationships with local panchayats in two districts with RRAN members taking up training and capacity building programs on sustainable agriculture to farmers in rainfed areas. This collaboration has led to the taluk panchayat in Mulbagal and RRAN to jointly plan convergence strategies between line departments for effective support to rainfed farmers in transitioning out of input intensive and non-profitable farming practices.

Local farmers coordinating with Panchayat members to promote RRAN Agenda in Rainfed districts



Women farmers have taken the lead to mobilise farmer's organisations to advocate with local Panchayats.

5. Women leadership

Promoted women only farmer's group in two districts to encourage women leadership in rainfed areas. As a principle, the contribution of women farmers who constitute more than 50% of the farming population need to be highlighted. RRAN Karnataka works with women from small and marginal farming communities to strengthen their livelihood as well as to ensure their participation in reforming panchayats along the lines of the 73rd amendment and the 11th schedule. Women led farmer's groups are also working in three districts to ease access to labour entitlements through effective implementation of NREGA.



6. Contributing to changes in Soil policy trajectory in Karnataka

As a network with active involvement of rainfed farmers working to conserve and leverage the benefits of improved biodiversity, effective water use, and rebuilding healthy soils, RRAN in Karnataka is working on a six-month long campaign to bring policy focus on Soil organic matter. The multiple benefits of soil organic matter is understated because of the detrimental effects of mainstream agricultural policies that promote chemical ‘yield enhancers’ and pesticides. The much-touted soil health card program has been reduced to a prescriptive tool for the application of even more chemicals. To stop this indiscriminate use of chemicals and to create an academic and field level critical mass and to promote farmers as bare foot soil scientists, RRAN held training programs for them in five districts and encouraged them to talk to Agriculture officers at the taluk and zilla levels. We also took the campaign to academicians in universities to mobilise their opinion for advocacy at the state level. The campaign is being merged with the Akkadi Saalu work for clear policy direction.



- The living soil campaign in December 2020 was initiated to bring the focus on soil organic matter as an indicator to be introduced into the soil health cards and to popularise it through Raithara Anubhava Mantapa in five districts.
- The Organic agriculture cell and Policy on organic farming was initiated in Karnataka in the year 2004 and yet departments and even most NGO's have failed to focus on the importance of organic matter. The level of comprehension on the issue by farmers is also very poor.
- In the soil health card there is no mention of organic matter in the test soil and how to improve it through

interventions. Soil carbon finds a mention in the soil health card, but there is usually no elaboration on it. The living soil campaign seeks to transform this through systemic change and improved farmer's knowledge on the issue.

- RRAN Karnataka is also in the process of ensuring a movement of activities through which farmers are trained in basics of soil science and are skilled to test and adopt remedial measures in their own field without being dependent on 'external experts'.



Soil training for farmers

7. Raithara Anubhava Mantapa

Raithara Anubhava Mantapa is a unique peer to peer learning process initiated by RRAN Karnataka. Inspired by the 12th century social reform processes of Basavanna who organised a non-hierarchical and dialectical interactions on crucial aspects of societal progress with people from various backgrounds contributing with their ideas and arguments. Raithara Anubhava Mantapa in Karnataka is a similar group building process through sharing between farmers with one progressive farmer in each district taking the lead in initiating discussions on diversity based ecological farming. Instead of an 'expert-led, top-down' training for farmers, RAM has instituted a process of democratic learning process in Karnataka. During one such collective exercise, it came to light that even in distant villages in remote rainfed areas, farmers have high input costs (9 lakhs were spent on chemical inputs by 30 marginal farmers each year). Raithara Anubhava mantapa has created a space for farmers to share their views and experiences without fear or prejudice.



Prabhakar, a progressive farmer and a core team member of RRAN Karnataka leads the Raithara Anubhava Mantapa discussions in various districts.

8. Rabi Campaign to extend livelihoods in Rainfed areas

The Rabi Cropping campaign was initiated as a continuum of the Akkadi Saalu campaign initiated during the monsoon season of 2020. RRAN found that 90% farmers in the Akkai Saalu campaign were not practicing rabi cropping. The campaign was able to establish that planned well, the farm residues and extended crops from the monsoon crops continue into and help in the Rabi cultivation. This helped understand the yearlong agricultural activity on farms as being continuous as well as inter dependent. RRAN also documented that after the harvest of the kharif crops there is not much need for land preparation for Rabi cropping. RRAN Karnataka helped provide seeds for farmers willing to practice Rabi with minimal land preparation. The impact of Rabi on food security and increased earnings of farmers is being documented. It was also decided collectively to make Rabi completely organic without any application of chemicals or with no ploughing as there are other row crops from the monsoon season that are still in the field. Major crops like Horse Gram, Bengal Gram, Coriander and green peas were grown in five districts.



RRAN brought back Rabi cultivation in five districts to improve food and economic security of rainfed farmers. It also extended rural livelihoods to 9 months in the year.

9. Representation in Government of Karnataka committees

- RRAN team has been empanelled by the State government and the World Bank to evaluate the 'Asia's largest drip irrigation project' at Ramthal in Bagalkor district of Karnataka. The process is ongoing and in its final stages.
- Prof. Kshithij Urs, the state lead of RRAN has been selected as a member of the Government of Karnataka subcommittee that is drafting the new agriculture policy for Karnataka.
- The team has also been invited to be on the government committee promoting integrated farming systems in the state.
- The Chairperson of the planning department of the Government of Karnataka has invited RRAN to make a presentation with policy directions on the possibility of Akkadi saalu being taken up as a state government program and scheme in rainfed areas of Karnataka.

RRAN Team with district level agriculture staff for a farmer led advocacy initiative.



RRAN team presenting their points to the team tasked with the making of a new state agriculture policy

10. Comprehensive Covid-19 Response for rural migrants in Bangalore

Since mid-March, RRAN in Karnataka has collaborated with grant making organisations and local government to raise resources and deliver relief for rural migrants stuck in Bangalore owing to Covid related lockdown. A total of Rs. 1.25 crore were raised besides dry ration to over 15000 individual migrants and 12000 families in informal settlements in Bangalore. The work required close coordination with BBMP - the local government, the Bangalore city police, the railways, and local sponsors of food supply for the labourers. Within a month, we were able to coordinate across the city to support laborers board eight trains to different locations. This was followed by relief and health care for rural migrants from Karnataka and Tamil Nadu in informal settlements in the city.