

Presenting the Pathway to Transform Global Food Systems

for people and the planet

Pioneered by Women Farmers of Andhra Pradesh



Rythu Sadhikara Samstha (RySS)

Andhra Pradesh Community-Managed Natural Farming (APCNF)

Department of Agriculture, Government of Andhra Pradesh



What is the global system of industrial agriculture doing to the environment, land, life, water, farmer, worker, and consumer?



The Crisis Is Known.

- Soil stripped of its own life and, in turn, its power to give life
- Water severely overdrawn
- Chemicals are overused
- Air is polluted
- Biodiversity lost
- Increased climate-induced natural disasters
- Production costs are out of control
- Farmers' incomes are not in their hands
- Food systems are broken



The Solutions Need to Scale.

Everyone knows and agrees these are the multiple dimensions of the crisis. In response, many solutions are also being piloted and replicated. What we need now is a pathway that stakeholders everywhere can confidently contextualise and leverage, to transition to the transformation their food system needs: nurturing soil even as we use it, optimising water use, improving farmer and worker livelihoods, and producing healthy and tasty food – in short, the way our food systems need to be.



It Takes A Unique Movement.



Farmers switching to Natural Farming are seeing profits in the 1st year itself. Unheard in transitions at scale. In the following years, costs keep going down and net incomes keep moving up. Resilience to extreme weather events grows too.

By Year 5, farmers see:

- Minimal weeds, no pests, and no diseases
- Water need is down by 50% and bio stimulant needs are down by more than 50%
- Incredibly, yields rise by at least 30%
- Net incomes have increased in the range of 19-36% for five major crops

For A Paradigm Shift.

In less than a decade, APCNF has become the world's largest scaled agroecology initiative. As on date, 1.8 million farmers, i.e. 30% of the farmers in the State, are enrolled in natural farming, covering an area of 800,000 hectares. Significantly, the number of farmers increased from 1.13 million to 1.8 million (a 60% increase over the previous year).

This is the story on the Andhra Pradesh Community-Managed Natural Farming, the flagship movement designed and demonstrated by Rythu Sadhikara Samstha (RySS), a not-for-profit company established by the Government of Andhra Pradesh.

It is the story of transitions that are really transformations.



The Program Spreads Far.

The Results Go Deep.

APCNF is already the world's largest scaled regenerative agriculture solution. By March 2027, it is planned to cover all the 13,325 villages of the State and enroll 2.5 million farmers (42% of the farmers in the State) and cover an area of 1.1 million hectares.

What does Natural Farming do for these farmers?

- Innovative techniques like Pre Monsoon Dry Sowing (PMDS) ensure positive returns from the very first year
- Ability to cultivate three or more crops in a year, even in rainfed lands
- Crops resilient to floods, cyclones, droughts, and pest attacks; NF farmers faced $\leq 10\%$ crop damage in Cyclone Michaung (2023)
- ~2-3 tons of carbon/hectare/year captured
- 50–70% lower methane emissions in paddy systems, due to improved soil aeration
- Nitrous oxide emissions are avoided almost entirely, with the elimination of synthetic nitrogen fertilizers
- 7x more earthworms
- 55% higher avian count
- 60% increase in beneficial insects



The Stakeholders Saw The Immense Promise.

The Movement Found The Right Levers.

Six powerful levers are at the heart of the APCNF's progress and success:



A State dedicated to spearheading the transformation



Women from Andhra's vibrant Self Help Groups (SHG) movement empowered to lead



New science of regenerative agriculture tried, tested, and then trusted to solve challenges and unlock the potential



Champion Farmers equipped to show the way for fellow farmers



Stakeholders, national and global, committed to collaborating for sustainable transformation



Communities invested and deeply engaged in the movement

The Science Is Sound.

The Results Are Remarkable.

Natural Farming mimics nature and is different from traditional farming or organic farming in significant ways. The foundation for APCNF comes from the principles of regenerative agriculture – a science based on a new understanding of biologically mediated nutrient cycling and water cycling.

Ask the APCNF farmers, and they will list the practices that have rewritten the rules of their agriculture:

- Cover soil with crops 365 days a year
- Make the crop mix diverse (15 -20 crops), include trees
- Cover the soil through live crops or through crop residue mulching
- Use bio-stimulants as necessary catalysts to trigger soil biology
- Disturb the soil minimally using lightweight implements
- Integrate livestock in the farming system
- Use own seeds, promote indigenous seeds
- Manage pests and diseases through botanical extracts
- Eliminate synthetic fertilizers, pesticides, herbicides, weedicides etc.



Growing With The Science.

And Growing The Science.

APCNF is growing the science by developing highly relevant agroecological models. Adopting these models, farmers are able to customize cropping patterns according to local climatic conditions, cultivate at low cost with climate resilience, and earn steady incomes. No high input costs. Higher net returns. And healthier soil.

The APCNF models include:



The Pre-Monsoon Dry Sowing (PMDS)

In this model, farmers mix diverse seeds and sow them before the monsoon or after the harvest. The crop residues are incorporated back into the soil when it's time. This enhances biodiversity, nourishes the soil, and improves water retention. In turn, the farmer's resilience, food-plate diversity and incomes grow.

The A-Grade Model

This model operationalises the crop diversity principle by creating a multilayer cropping system. It is designed to maximise income and resilience through 4 or 5 main crops along with 20–25 biodiversity crops each season.



Growing With The Science.

And Growing The Science.



The ATM Model

A compact, high-return model, the ATM Model is tailored for small and marginal farmer households. The model involves plantation of 15–18 types of vegetables and fruits in relay mode in just 800 sq. meters, allowing harvests every 7–10 days. The result? From money coming only one time, the paradigm switches to any time.

The Drought Proof Model

A tactical approach for moisture-deficit regions, it consists of sowing five carefully selected drought-resistant crops together with no ploughing. This preserves soil structure and moisture. Each crop has a different rooting depth and moisture requirement. Seed pelleting enables germination with minimal rainfall. The model also ensures soil coverage even in harsh conditions, reducing soil temperature and evaporation.



The State Is The Change Agent.

The Farmers' Agency is Changing.

In APCNF, the State is the change agent, playing the role of leading farmers out of suboptimal systems to uncover and be inspired by the possibilities of the new system. It challenges everything they knew and changes everything they did. The unlearning leads to new learning, supported by a complete ecosystem created by APCNF.

In this ecosystem, the women farmers are discovering agency they had lost. Now, farmers are:



- Assuredly in control of their soil health
- Finally in control of input costs
- Fully in control of seed
- Comfortably in control of water management
- Confidently in control of crop health
- Primarily in control of extension services
- Equally in control of innovations
- Making food safer and healthier, for themselves and the communities
- Aggregating, value adding, and marketing
- Growing into practitioner scientists, with support from the Indo-German Global Academy for Agroecology Research And Learning (IGGAARL)
- Becoming communities who show the way forward in their respective administrative division



**Program anchored in 360,000 Self-Help Groups of 3.6 million women
10,000 farmer trainers (CRPs) (60% women)
4,000 Bio-input Resource Centers**

The Farmers Are The Movement.

The Movement Is Its Farmers.

The APCNF Movement stands out for several reasons:

- Farmers enroll voluntarily
- Farmers avoid synthetic chemicals voluntarily
- Farmers work with one another to make the world's largest farmer to farmer extension system
- Farmers in each village receive long term handholding support for 8 to 10 years, till the transformation of all farmers and all farm lands is completed
- Small and marginal farmers receive a high level of focus and support
- Women farmers' self-help groups and village-level organizations are at the forefront
- Landless farm workers are an integral part of the movement, with interventions designed to support their food security and livelihoods
- The transformation comes for a remarkably low investment – just INR 25,000 per farmer over eight years



The World Has Taken Notice.

The World Is On Board As Partners.

Over a decade, leading organizations have taken note and come on board early or later to partner with APCNF.

The Governments of Andhra Pradesh and India have invested USD 170 mn. Partner organizations, include:



Global Alliance
for a Sustainable Planet



PRODUCERS
— TRUST —



Impacting Critical Dimensions.

Attracting Major Recognitions.

Jaivik India Awards



2025 | For Excellence in Promoting Natural Farming

Gulbenkian Prize for Humanity



2023 | For Outstanding Climate Action

National STREE Award for Women's Development



2023 | For Women's Empowerment

India Innovation Award 2023



2023 | For Disruptive Impact

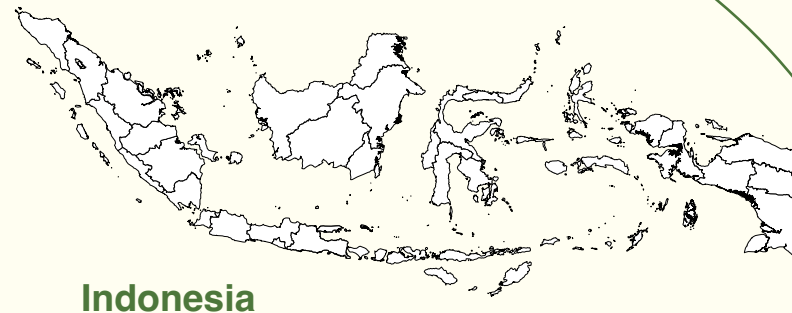
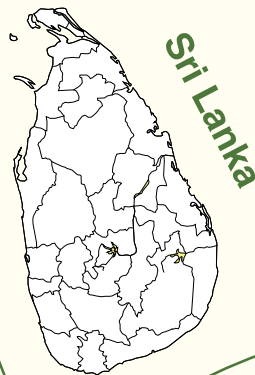
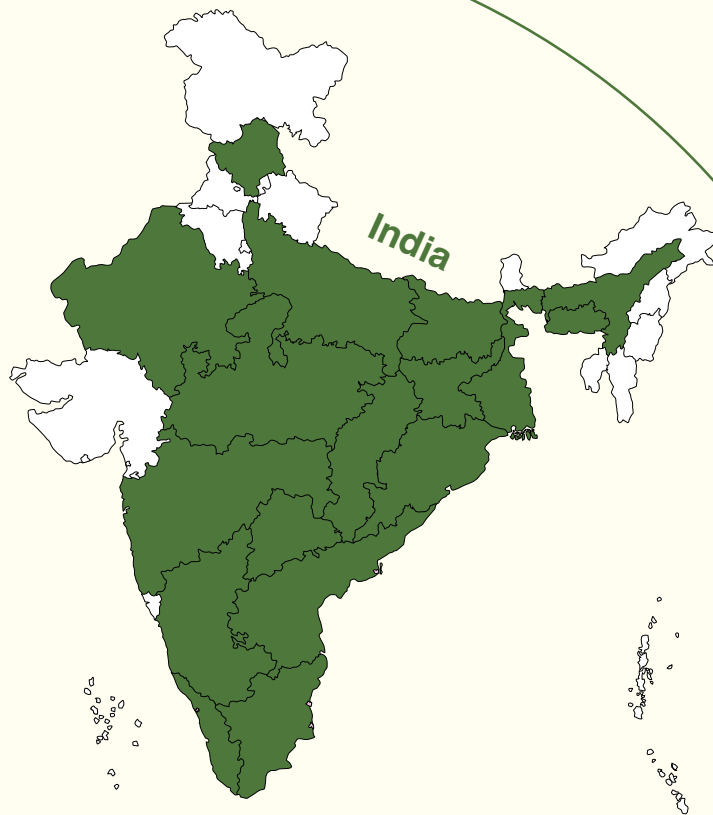
It Started in Andhra Pradesh.

It Is Starting to Spread.

After seeing the APCNF model's results, interest from other parts of India and the world has grown. To help adapt the model and replicate it, RySS and APCNF have been designated as a National Support Resource Organization (NRO) by the Ministry of Rural Development, Government of India.

Today, the RySS NRO works with 22 states across India and supports pilots in Sri Lanka, Indonesia, and Zambia.

Delegations from 55 countries
Methods being shared with 22 Indian states



Join us, as we rewire connections and redefine agriculture for our shared future.

APCNF enters its second decade with a vision to lead 6 million farming households and 2 million landless households the Natural Farming way by the year 2035, covering over 8 million hectares across all 26 districts in Andhra Pradesh.

What's more, APCNF aims to support 22 of India's 29 states and collaborate with stakeholders from 10 other countries, most notably Cambodia, the DRC, Brazil, and Kenya to advance the global transformation of food systems.





Together, We Can Pioneer the Model, To Catalyze:
Public Investments | Strong Community-owned Institutions |
Scientific Foundations | Global Access to Knowledge | Demand Generation

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