



Rythu Sadhikara Samstha (RySS)

Andhra Pradesh Community managed Natural Farming (APCNF)

Department of Agriculture, Government of Andhra Pradesh

From
Healthier
Choices for the Farm to
Nourishing
Options on the Plate

Presenting how APCNF ensures
rural populations eat better



SDGs that APCNF Health and Nutrition Interventions contribute to:



**SUSTAINABLE
DEVELOPMENT GOALS**



Everyone deserves to eat better.

Improved nutrition is a bit like a pyramid. Feed the soil that feeds the crops that feed us all.

At APCNF, we have been working from 2016 to create a food system that's better for the planet, for the producers, and for the people. In more than 8,168 gram panchayats, 1.8 million APCNF farmers cultivating 0.8 million hectares produce a wide range of nutrition dense food, throughout the year.

At the same time, we know people do not automatically choose a more nutritious food basket. A number of variables push or pull people to make poor choices – affordability, availability, convenience, culture, habits, income, information, and marketing.

And so, in 2019, we began focusing on the 'eating system' of people in the villages where we work. To know what we do to make people eat better, how their new choices favour better nutrition, and how that improves health, read on.



Imagine a farmer cultivating 20 to 30 crops in a year. Now, picture everyone getting all that nutrition too!

The APCNF movement is rooted in regenerative agroecological practices. It encourages farmers to use locally available inputs and biostimulants to activate soil biology naturally. APCNF farmers ensure 365 days of green cover with 20-30 diverse cover crops and inter-crops. The varied harvests represent an abundance of holistic nutrition. Unfortunately, people cannot access or do not choose better nutrition, resulting in chronic health challenges in rural populations – including undernutrition, anaemia, and stunting. Women and children are the most vulnerable.





Recognising the health-ecosystem-agriculture connections, APCNF is piloting in 400 villages a multi-sectoral approach to integrate health and nutrition considerations. We focus on households, community, institutions, and farmers to influence change in household consumption patterns. Self-consumption and local consumption improves dietary diversity and reduces malnutrition. About 87% of the farmers in this intervention have reported an improved diet diversity all year round.

APCNF's vision is 'to make every APCNF village a model of food security, dietary diversity, and nutrition-sensitive farming'

How households are eating better – a bundle of seven APCNF health and nutrition initiatives

In 400 villages, APCNF has designed and operationalised seven actions. The package of multisectoral interventions serves the primary goal of enhancing diet diversity and the consumption of chemical-free, nutrient-dense foods.



Domestic production and integration of nutrition advice in the NF program

Seven Nutrition Sensitive Actions

Nutrition Garden: Households get support to achieve nutrition security with a low-cost model. With this, leafy vegetables, tubers, fruits, pulses, legumes, medicinal plants, and eggs enrich the everyday food basket of households. Poultry, Small ruminants and fishery is also integrated in the model. At present, more than 80% of households have 5 to 7 food groups in their diet.

Evaluations show:

Child Development Indicators are Better, Family Health Expenses are Lower.



- More than 80% of 1000 days target group and adolescent groups have adequate diets
- Women with no anaemia at 52.57% compared 41% in AP and 49.51% nationally
- Children underweight lower at 28% compared to 29.6% in AP and 32.1% nationally
- Stunted growth lower at 24 compared to 31.2% in AP and 35.5% nationally
- Children have significantly higher CREDI scores (higher Z-scores relative to children in control villages (-0.38 versus -0.91 respectively, $p < 0.01$)
- Children diet adequacy is 2 times (16.67%) more in intervention villages compared to AP (8.2%) and 11.3 % nationally

Food Basket: Village SHG federations conduct SHG-wise food basket assessments, identify gaps, drive discussions on solutions, guide crop planning, create linkages, and use dedicated Revolving Funds to source healthy produce from the NF farmers mapped. This ensures a supply of items needed for dietary diversity. Promotes local production and local consumption.



Nutri Enterprises: Communities move away from processed foods towards food baskets with diverse local, natural foods. Nearly one thousand households in 34 villages receive NF foods to improve their food baskets.

Farmer Nutrition Schools: With carefully selected topics, appropriately designed visual aids, and engaging activities, the Farmer Nutrition Schools create awareness, educate people on better nutrition, organize cooking demonstrations, promote WASH practices, and follow up to ensure learning results in better nutrition choices.



Supply to Institutions: All the Early Childhood Care Centres (ECCC)/Anganwadi Centers (AWCs), Primary Schools, and Hostels in the project receive a supply of NF foods.

The internal facilitators of the seven multisectoral interventions are graduates and post-graduates in the domains of public health, nutrition, and food technology, who stay in these villages



Production and Consumption: Women from the SHGs take the centrestage to shape the production and consumption agenda, demonstrate role models, establish nutri gardens and nutri enterprises, and adopt priority households.

Thematic Campaigns: Communities become more aware to ensure adolescent girls continue in schools and to understand environmental degradation. About 65% of the population reached by the awareness initiatives have adopted health and hygiene practices.



Partnerships and Studies for Evidence

APCNF has research partnerships with



Three large studies are helping APCNF gather data and establish the impact the Health and Nutrition interventions are delivering. The three studies are:

1. The cluster-randomised “BLOOM (co Benefits of Large-scale Organic farming On huMan health)” evaluation uses rigorous methodology across 80 clusters and will measure dietary diversity, urinary pesticide metabolites, anaemia, child growth and development among adult men, women and children under 38 months.
2. The “Natural Farming Through a Wide Angle Lens: True Cost Accounting Study of Community Managed Natural Farming in Andhra Pradesh” (2023) compared APCNF with conventional and low-input systems using the TEEBAgriFood framework.
3. PLOS ONE's "Evidence of potential impacts of a nutrition-sensitive agroecology program in Andhra Pradesh, India." (May 2024) in partnership with University of Edinburgh (UOE) and Public Health Foundation of India (PHFI).

Healthy Numbers show Improved Health

A midline evaluation in 2024, carried out with technical support from AIIMS-Mangalagiri found significant improvement on the following key indicators:

Indicator	Result (Baseline to Midline)
Diet Diversity (5–7 food groups)	50% → 87% HHs
Underweight Children	28% → 22.26%
Stunting	24% → 20.02%
Pregnant Women ‘No Anaemia’	41% → 52.57%
CREDI Scores (Child Development)	Significant improvement
Household Food Security	84% reported adequate access

Key Insights of Observational Studies

- Natural Farming (NF) foods show significantly reduced post-harvest food loss compared to Conventional Farming (CF):
 - Paddy: NF 25% | CF 38%
 - Black gram: NF 39% | CF 58%
 - Banana: NF 14% | CF 29%
 - Tomato: NF 49% | CF 47%
- NF foods need 7% to 40% less cooking oil compared to CF foods
- NF foods need 5% to 17% less time for cooking compared to CF foods
- Sensory evaluation (appearance, colour, texture, taste, flavor, smell):
 - The NF samples received much higher sensory evaluation scores across all parameters – appearance, colour, texture, flavour, smell, and taste
 - About 77% of respondents rated NF samples as very good, nearly 20% as good, and only 3% as average
 - In contrast, the CF samples were mostly rated in the average to poor range, with over 96% of responses falling below the good category

When Nutrition Helps Fight Diabetes and Hypertension

NCD (3.0) Study by the Department of Medical Health and Family Welfare show diabetes prevalence in the villages with APCNF Health and Nutrition interventions is 11% (compared to 20.6% in Andhra Pradesh and 13% in India). Even more impressive is the reduction in prevalence of hypertension – 14% in villages with Health and Nutrition interventions (27% in Andhra Pradesh and 22.5% in India).



More People Eating Healthier

APCNF's Vision 2035 is 100% Natural Farming in Andhra Pradesh, involving over 6 million farmers and covering 8.0 million ha, to produce sustainable, chemical-free food for all households.

As we pursue this goal, we are developing a cadre of Community Nutrition Counsellors. The Counsellors will help communities make healthy food a habit.



For a more detailed conversation on how APCNF Health and Nutrition initiatives are ensuring high quality nutrition and diet diversity for key stakeholders in communities, get in touch with us:

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