

Natural Farming



Actionable Area

The transformation of our food system must centre around the socio-cultural context, focusing primarily on women and small, marginal, and landless farmers. The shift must also acknowledge local indigenous knowledge systems and agro-ecosystem complexes.

Issues

Agriculture is a resource-intensive exercise. While conventional agriculture has led to approximately doubling the buffer stocking norms of the Public Distribution System (PDS) and ensured calorie sufficiency, the efficiency of the food system to deliver nutritious food sustainably and with little waste has declined. Notably, most of the benefits of this distributed crisis are harvested by medium and large farmers, leaving the majority of small and marginal rainfed farmers at risk.

Natural farming is a landscape-level agro-ecological approach to sustainably manage natural resources of local, distinct agro-ecosystems while eliminating the usage of synthetic agrochemicals. Natural farming or broader agro-ecology is not a mere change of agricultural practices but a transformative approach to the relationship between us humans, our food production and consumption, and the larger natural ecosystem. This characteristic feature of natural farming suggests that it is not only a technological transition but a paradigmatic shift.



6,52,000 ha
of area under natural farming
across Andhra Pradesh, as of
November 2020¹



6,00,000 Farmers
enrolled in the Andhra Pradesh
state programme for natural
farming, as of November 2020³

6,377 ha
area under natural farming in
Himachal Pradesh as of
March 2021²

1,16,700 Farmers
are practising natural farming
under the Himachal Pradesh's
Prakritik Kheti Khushhal Kisan
Yojna as March 2021⁴



**Small, marginal,
landless, tribal Farmers**
are predominantly adopting
natural farming



All types of crops
cereals, millets, and cotton to
fruits, vegetables, and spices, are
cultivated under natural farming

Source: Lok Sabha 2019; Ministry of Agriculture & Farmers Welfare 2019, RYSS Andhra Pradesh; Khadse et al. 2017

¹ Rythu sadhikara samstha, Andhra Pradesh.

² Stakeholder Consultation, SNPF, Prakritik Kheti Khushhal Kisan Yojna, Himachal Pradesh.

³ Rythu sadhika samstha, Andhra Pradesh.

⁴ Stakeholder Consultation, SNPF, Prakritik Kheti Khushhal Kisan Yojna, Himachal Pradesh.

Status

A recent report by the Council on Energy, Environment, and Water (CEEW) on the Status of Sustainable Agriculture in India captures the current scenario of different systems and practices in the domain. A large-scale survey by the National Coalition for Natural Farming suggests that as of 2021, 164 Organisations in 88 districts of India are working with 94,000 farmers to scale natural farming in India. The Himachal Pradesh government indicates the adoption of natural farming by 56,620 farmers and the Andhra Pradesh government of 6 million farmers.

Government and private sector initiatives

Formulated in 2014-15, the National Mission for Sustainable Agriculture (NMSA) is the Indian Government's flagship policy committed to promulgating sustainable agriculture across the country. Besides NMSA, the Pradhan Mantri Krishi Sinchai Yojana focuses on improving water use efficiency and extending irrigation cover. The Integrated Watershed Management Programme aids in restoring ecological balance by harnessing, conserving, and developing degraded natural resources. In addition to the mentioned policy interventions, numerous civil society organisations (CSOs) are at the forefront of accelerating the efforts of scaling natural farming across the nation by promoting agro-ecological practices.

Sustainable agriculture practices and systems in India (2021) - Key statistics



Vision 2030

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Transform the current food production systems based on agro-ecological principles in at least 10% of the country's agricultural area within the next decade.

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Adopt a coordinated, comprehensive landscape-level approach that builds the social and natural capital while linking institutions to create a holistic circular bio-economy with communities and existing knowledge systems at the centre.

The National Bureau of Soil Survey & Land Use Planning (NBSS&LUP) has divided the country into 20 agro-ecological regions (Sehgal et al. 1992). These 20 agro-ecological regions (AERs) are further sub-divided into 60 sub-regions (AESRs) (Velayutham et al. 1999).

The 20 agro-ecological regions include-

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|----------------------------------------------------------------------|--------------------------------------------------------|
| 1. Western Himalaya (Cold Arid); | 11. Eastern Plateau (Chattisgarh); |
| 2. Western Plain, Kutch and Part of Kathiwar Peninsula (Hot Arid); | 12. Eastern (Chhota Nagpur) Plateau and Eastern Ghats; |
| 3. Deccan Plateau (400-500 mm rainfall); | 13. Eastern Plain; |
| 4. Northern Plains and Central Highlands including Aravallis; | 14. Western Himalayas; |
| 5. Central Highlands (Malwa), Gujarat Plains and Kathiwar Peninsula; | 15. Bengal and Assam Plains; |
| 6. Deccan Plateau (600-1000 mm rainfall); | 16. Eastern Himalaya; |
| 7. Deccan Plateau (Telangana) and Eastern Ghats; | 17. North Eastern Hills (Purvanchal); |
| 8. Eastern Ghats, TN Uplands and Deccan Plateau; | 18. Eastern Coastal Plain; |
| 9. Northern Plains; | 19. Western Ghats and Coastal Plains; |
| 10. Central Highlands (Malwa, Bundelkhand and Eastern Satpura); | 20. Islands of Andaman-Nicobar and Lakshadweep |

Natural Farming in Practice



Source: <https://pib.gov.in/PressReleaseframePage.aspx?PRID=1705191>

Pathways

POLICY



Include natural farming produce in schemes like Mid-Day meal, relief rations, and state-subsidized food.

Mandate a percentage for procurement under the PDS systems and rationing natural farming products to incentivise the consumer for a switch from homogenised food.

Amplify the availability of natural products and reduce the price gap between natural and conventional produce by localized production and consumption.

Encourage individual and collective production of bio-inputs through public policies, improving the availability and affordability and incentivizing their application.

Revamp the fertiliser responsive seed breeding programme to support indigenous, open-pollinated, and locally resilient farmer's varieties.

Expand and diversify the basket of public procurement to include more crops as it can help farmers and regions to implement crop diversity and achieve better nutrition.

Set standards for agro-industries on the pricing of natural produce, preservatives, shelf life, and farm-to-shelve processes.

Evolve standard valuation, certification and payment mechanisms for ecosystem services to prompt farmers towards sustainable and natural farming.

Pathways

IMPLEMENTATION



Promote custom hiring centres to ensure the timely availability of farm equipment for smallholders.

Promote traditional varieties besides tree-based crops, roots, and tubers for diversification.

Supplement promulgation of diversification by technological innovation.

Revise the indicators for agriculture productivity beyond yield to move towards total system productivity against total factor productivity.

Evolve systematic frameworks for advisory services across the value chain stages.

Give graded certification for farmers for practices, input, fertility, etc., over existing certification model.

Support and strengthen start-ups in the organic and natural domain for broadcasting the benefits.

Create public awareness, incentivise consumption of natural farm produce.

KNOWLEDGE AND RESEARCH



Public authorities prioritise mainstreaming agro-ecological principles in research and extension by realigning the funding and research agenda and increasing Natural Farming's evidence base through consistent monitoring and documentation.

Review the current quality standards and regulations around bio-inputs, educating farmers, and documenting the best practices.

Re-skill farmers, supplement the indigenous systems, and develop a comprehensive capacity building.

Portray natural farming food as desirable to align with the need for better and healthy products.

Map consumers not merely by calorie consumption but by micro and macronutrients in food.

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