



## **Natural farming -government mission policy and its implementation in different states of India**

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### **Abstract:**

Natural Mission on Natural Farming aims at creating institutional capacities for documentation and dissemination of best practices to implement self sustainable self generating natural farming systems to cut down cost of cultivation, resource conservation, healthy soils, environment and food. Cell have been created for effective implementation at state level and district level. Project Co-ordinator and Technical Co-ordinator at HQ unit is an implementing Government nodal agency to implement the schemes of diversified agriculture support project in Uttar Pradesh. Namami Gange mega project launched by Honorable P.M. of India in 2022-23. The article is based on scheme implemented in different 28 districts of Western Uttar Pradesh. Corresponding author is the Technical Coordinator in Government of Uttar Pradesh, under Co-ordination Department, Lucknow, (U.P.). Trials were conducted under natural farming in Bareilly district. It is recorded that Lentil, Gram, Mustard performed better in yield q / ha followed by old variety of Rice and Wheat. Andhra Pradesh 5.92 lakh, Himachal Pradesh 1.53 lakh and Gujarat 2.0 lakh number of farmers, and 3.73, 3.56, 8.50 Village Panchayat and 2.68 lakh ha, 9192 ha, and 2.5 lakh ha area has been covered respectively under natural farming. Cost and yield under natural farming in comparison to organic and conventional farming is lower. The trials have been conducted in different locations because of standardisation of subhash palekar's model of BPKP (ICAR-Report, 2017-18). Uttar Pradesh has covered 97460 ha area and 05 lakh farmers during last two years (Niti Ayog Report, 2024-25). Project: Uttar Pradesh Agriculture Growth and Rural Enterprise Ecosystem Strengthening (AGREES) has been launched in 28 district of eastern Uttar Pradesh state. The Government of India has applied for financing in the amount about US\$ 350 Million equivalent from World Bank toward the cost of the IPF Project. The project has included the components are-Productivity enhancement, commodity clusters, digital and financial ecosystems and project management, learning and partnerships. Cow dung based bio-stimulant was prepared locally by fermenting with cow urine, jaggery and pulses flour about 400 kg for an acre of land applied to fields increased the microbial count in the soil, which supplies the plants with essential nutrients (Jivamrit).

### **Introduction:**

Natural farming offers a solution to various problems, such as food insecurity, farmers' distress, and health problems arising due to pesticide and fertilizer residue in air, food and water, global warming, climate change and natural calamities. It provides opportunity to use homemade seeds, local cattle's dung, urine, local vegetation and agriculture produce based formulations for plant nutrition, crop protection from pests and stress thus reduces the cost of cultivation and dependence of the farmer on market. It also has the potential to generate employment, thereby stemming the migration of rural youth. Natural farming, as the name suggests, is the art, practice and, increasingly, the science of working with nature to achieve much more with less. Natural farming is a chemical-free alias traditional farming method. It is considered as agro-ecology based diversified farming system which integrates crops, trees and livestock with functional biodiversity. In India, Natural farming is promoted as Bharatiya Prakritik Krishi Paddhati Programme (BPKP) under centrally sponsored scheme- Paramparagat Krishi Vikas Yojana (PKVY). BPKP is aimed at promoting traditional indigenous practices which reduces externally purchased inputs. It is largely based on on-farm biomass recycling with major stress on biomass mulching, use of on-farm cow dung-urine formulations; periodic soil aeration and exclusion of all synthetic chemical inputs. According to Department of Animal Husbandry, Dairying and Fisheries Report (DADF, 2018-19), GOI, natural farming will reduce dependency on purchased inputs and will help to ease small holder farmers from credits burden. Natural Farming will be compared with Organic Farming and Conventional Farming where external inputs will be used as per requirement. The project envisions to transform agri supply and value chains to empower key stakeholders including Farmer Producer Organizations (FPOs), MSMEs, and Agribusiness players to strengthen market infrastructure and promote climate resilient agriculture practices to revive natural ecosystems and to develop climate resilience.

### **Materials and Methods:**

Bhartiya Prakritik Krishi Padhati is a zero external input system of organic agriculture based on farm biomass recycling, use of on farm cow dung-urine formulations (Bijamrit and Jivamrit). Selection of farmers dry lands, rainfed areas and tribal areas are to be given preference. The proposals under BPNP 409400 ha area and Rs 5599.32 lakh have been released for different states of the India. Keeping in view growing acceptance of BPKP has been updated as National Mission on Natural Farming. NF initiatives by GOI and States in FY 2022-23 nearly 9.40 lakh ha area initiated under natural farming in 17 states. More than 28 lakh farmers participating in NF. Namami Gange- total 1.48 lakh ha sanctioned to Bihar, Jharkhand, UP and Uttarakhand for 5 km on each side of River Ganga. Uttar Pradesh Diversification of Agriculture Support Project (UPDASP) has been implemented 28 districts of western Uttar Pradesh through Government of U.P. since 2014-15 (UPDASP, Report, 2014-15, 2022-23). The objective of crop productivity enhancement is to focus on strengthening agricultural productivity against the backdrop of high levels of climate risks and variability in productivity across the project areas. To support the integration of smallholder farmers into value chains to select high-value commodities, thereby increasing productivity, value addition and farmers' income.

Natural farming is a sustainable way of farming agriculture is at epicentre of the country's journey towards Atma Nirbharta (Self reliance) with farmers at its core. The efforts of the government have consistently focused upon upliftment, empowerment and stability of farmers in the technical, economic and social realm. It is in this endeavour that we continuously explore various methods to achieve ecologically sustainable and economically viable methods. Natural farming is one such method that holds potential to realise all these goals. It is backed by our rich traditional knowledge, and is a practice of agriculture based on locally available resources, which makes it a sustainable and viable practice. Tarai Region of the district comprised clay, clay loam and loam soils with high fertility, high rain fall and most suited for paddy, wheat and sugarcane cultivation. Out of 15 development blocks of Bareilly district, 5 blocks viz. Baheri, Damkhoda, Shergarh Nawabganj and Bhadpura falls in this agro climatic zone IV. Project area falls under Tarai agro-climatic zone of Bareilly District. The eastern UP and Bundelkhand are two economic regions that lag behind the rest of the state in agriculture, UP-AGREES project will focus on attention on 28 districts in these two regions. The project will target the participation of women across all the

interventions. At block level, the support organization is responsible for taking the package of information to the farmers/farmer producer groups. At district level, a district coordination committee, headed by the District Magistrate.

Table -1: Positive Effects of Natural Farming

Natural Farming Implementation	Significance of Natural Farming
<ul style="list-style-type: none"> <li>➤ Urine based farming system that did not involve any external Chemical or Organic fertilizer.</li> <li>➤ It is known by various names like; Zero Budget Natural Farming, PrakritikKrishi, Cow Based Natural Farming, Shashwat Kheti, Chemical Free Agriculture, etc.</li> <li>➤ GoI is promoting Natural Farming through a scheme named Bhartiya Prkritic Krishi Paddhati (BPKP).</li> </ul>	<ul style="list-style-type: none"> <li>➤ Reduced cost of cultivation</li> <li>➤ Reduced water requirement of crops</li> <li>➤ Climate change resilient, reduced risks in farming</li> <li>➤ Rejuvenated of farm lands</li> <li>➤ Safe and healthy food for citizens</li> <li>➤ Utilizing the available cattle (Desi Cow) as valuable resources</li> <li>➤ Helped in arresting growing weeds for fertilizers and reduce subsidy burden.</li> </ul>

**Results:**

Government of India mission on national farming 2022-23 has been implemented in different states as depicted in table-2. This farming method also uses a host of other interventions. Seed treated with cow dung based stimulant which protected young roots from fungus and other soil and seed borne diseases (Beejamrit) improved germination counts.



Figure 1: Sowing of crops under natural farming at UPDASP farm

Table-2 : Implementation of the Scheme in different states of India

Paramparagat KrishiVikasYojna (PKVY)	Bhartiya praktik Krishi Paddhati (BPKP)
<ul style="list-style-type: none"> <li>➤ 30,934 clusters (20 ha each) formed since 2015-16,</li> <li>➤ 6.19 lakh ha area and 15.47 lakh farmers were benefitted,</li> <li>➤ A detailed online web portal- www.jaivikkheti.in</li> </ul>	<ul style="list-style-type: none"> <li>➤ GoI is promoting natural farming through a sub-scheme named BPKP since 1920-21</li> <li>➤ BPKP same as PKVY with focus on hand holding and capacity building</li> <li>➤ Area covered – 4.09 lakh ha (980 clusters of 500 ha each)</li> </ul>
Namami Gange scheme	Large Area Certification
<ul style="list-style-type: none"> <li>➤ 1657 Gram Panchayat in Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal for development of Organic Farming in the villages along the river Ganga,</li> <li>➤ Under Namami Gange Programme- 6181 clusters and 1,23,620 ha area covered</li> </ul>	<ul style="list-style-type: none"> <li>➤ Large area under traditional organic farming systems with no synthetic input / chemical input use history are declared as certified organic under union territory:</li> <li>➤ Car Nicobar – 14,445 ha</li> <li>➤ Lakshdweep – 2,700 ha</li> <li>➤ Ladhak -5,000 ha area</li> </ul>



Figure 2 : Preparation of fermentate, stimulant and its application in weed crop

Table 3 :Status of Natural Farming in three states of India

Andhra Pradesh State	Himachal Pradesh State	Gujarat State
<ul style="list-style-type: none"> <li>➤ Initiated in 2015 by Rythu Sadhi kara Samthi (RySS),</li> <li>➤ Knowledge dissemination to Community Resource Persons,</li> <li>➤ Started with 900 acers grew to 18,000 as best practitioner of Natural Farming</li> </ul>	<ul style="list-style-type: none"> <li>➤ 4 Mega farmers sensitisation programme for 6 days each,</li> <li>➤ Farmer experience led to development of local crop wise package of practice</li> </ul>	<p>One day workshop for 10,000 farmers in 2019 followed by seven days training of 21,861 Master Trainers,</p> <p>Large scale dissemination of Natural Farming techniques and Success Stories through pamphlets and video(s)</p> <p>(Niti Ayog, 2022)</p>

**Discussion:-**

In different states, number of farmers covered and implemented area in hectares under natural farming mission has been depicted in table 3. The fields were managed to have some green cover round the year to aid carbon capture by plants from the air and nurture the soil-carbon-sponge. This might keep the microbes and other organisms like earthworms, alive which helps the soil become porous and might retain more water (Whapsa).

Table 4 : Farmers and Area Covered under Natural Farming:-

Sl. No.	State	Farmers Covered	Gram Panchayat	Area Covered	Implementing Agency
1.	Andhra Pradesh	5.92 Lakh (12.3%)	3,730 (28%)	2.68 Lakh ha (4.6%)	RySS, State Govt. Cooperation
2.	Himachal Pradesh	1.53 Lakh (16%)	3,563 (98.2%)	9192 ha (0.96 %)	State Project Implementing Unit
3.	Gujrat	2 Lakh (3.76%)	8,500 (59.6%)	2.5 Lakh ha (2.5%)	State Govt.

Source : Neeiti Ayog Report, 2022-23.

During the cultivation of main crops, crop residues were used as mulch (Acchadana or Mulching) to retain soil moisture and which could prevent the growth of weeds. This practice of farming is being adopted in different states of India. The results are similar to their findings. At block level support organisation will take the technologies and agronomic practices to the farmers/farmer groups. Implementation is shown in above tables.

**Conclusion:**

Natural farming comes under priority of the Central as well as the State Governments. . BPKP is aimed at promoting traditional indigenous practices which reduces externally purchased inputs. It is largely based on on-farm biomass recycling with major stress on biomass mulching, use of on-farm cow dung-urine formulations; periodic soil aeration and exclusion of all synthetic chemical inputs. Natural farming will reduce dependency on purchased inputs and will help to ease marginal and small holder farmers to doubling the farm income. Diversification of agriculture through natural farming practices in Uttar Pradesh as well in other states of India is under the policy of minimum support price. It is understood that required inputs are wholly farm based . Implementation data shows that yield and cost of natural farming is lower than conventional farming . Farmers need support price for their produce of natural farming as well as other seasonal crop produce. The project is managed and implemented by the Uttar Pradesh Diversified Agricultural Support Project (UPDASP) Society. Growing multiple crops in the same patch of land also raised soil fertility ( MANAGE,2023)

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