

UPSC Civil Services Examination

Subject – UPSC GS-III

Topic – Zero Budget Natural Farming

Zero Budget Natural Farming as the name suggests, is a type of chemical-free farming where the total cost of growing and harvesting plants comes out to be zero (taking into consideration the costs incurred by the farmers are recovered through inter-cropping). The topic, 'Zero Budget Natural Farming,' gained prominence when Finance Minister Nirmala Sitharaman mentioned it in her 2019 budget speech, speaking of it as a source of doubling farmers' income. This article will mention the important facts about Zero Budget Natural Farming to help [IAS Exam](#) aspirants for GS-III preparation.

Who introduced Zero Budget Natural Farming?

Subash Palekar (Indian Agriculturist and Padma Shri Recipient) is the father of Zero Budget Natural Farming. He developed it in the mid-1990s as an alternative to the [Green Revolution](#)'s methods.

The points put-forward by Subash Palekar in support of Zero Budget Natural Farming are:

1. Lakhs of farmers are using the technique of Zero Budget Natural Farming in different agroclimatic zones and soil types.
2. To grow a plant, whatever is needed is present in nature. No chemicals are required to grow a plant. An example - Earthworm excreta has seven times more nitrogen than the soil.
3. Large number of small farmers are using this technique as they see Zero Budget Natural Farming as a tool that can free them from debts and defaults.
4. It makes farming both profitable and sustainable.

Facts about Zero Budget Natural Farming for UPSC

A few important details about the Zero Budget Natural Farming are given in the table below:

What is the application used in Zero Budget Natural Farming?	'Jeevamrutha' is applied in farming. Jeevamrutha is the mixture of: <ul style="list-style-type: none">• Fresh desi cow dung• Aged desi cow urine• Jaggery• Pulse flour• Water and• Soil
What is the use of Jeevamrutha that is used in Zero Budget Natural Farming?	It helps in the addition of nutrients in the soil and also in catalysing the microbial activities in the soil.

How is Jeevamrutha applied in Zero Budget Natural Farming?	About 200 litres of jeevamrutha is sprayed twice a month per acre of land. After three years, the system is supposed to become self-sustaining
Which quality of cow is needed in Zero Budget Natural Farming?	According to Palekar, a local Indian breed cow is sufficient for 30 acres of land
What is used in place of chemicals in Zero Budget Natural Farming?	A mixture called 'Bijamrita' ('Bija' stands for seed) is used for the treatment of seeds while another mixture of neem leaves and pulp, tobacco and green chillies is used as an insecticide
What do Acchadana and Whapasa mean?	Acchadana is Mulching, associated with Zero Budget Natural Farming while Whapasa is a condition where there is a presence of both air molecules and water molecules in the soil. Whapasa helps in reducing irrigation requirements.
What are the uses of Zero Budget Natural Farming?	<p>Apart from the least cost incurred in this type of farming, the Zero Budget Natural Farming also promotes:</p> <ul style="list-style-type: none"> • Soil aeration • Minimal watering • Intercropping • Bunds and • Topsoil mulching <p>Intensive irrigation and deep ploughing is not promoted in Zero Budget Farming.</p>
Is Vermicomposting used in Zero Budget Natural Farming?	<p>No, Vermicomposting which is a method of using earthworms as a means to enhance organic waste conversion; is not supported in Zero Budget Natural Farming.</p> <p>Palekar mentioned that European Red Wiggler (Most common composting Earthworm) that are used in vermicomposting absorb toxic metal and poison the soil.</p>
Which is India's state to roll out a plan to become the first state to practice 100 percent natural farming by 2024?	Andhra Pradesh

Zero Budget Natural Farming and Farmers' Income

- The major characteristic of the Zero Budget Natural Farming is that the cost of production is zero and farmers do not have to buy any inputs to initiate this method of farming.
- Against the conventional methods, the Zero Budget Natural Farming used only 10 percent of the water that is used in the former method.
- As it promotes use of Indian local breed of cow for 30 acres of land, it makes it possible for farmer to earn profits earlier than expected
- Palekar suggested that with Zero Budget Farming One can make an income of ₹6 lakh an acre in irrigated areas and ₹1.5 lakh in non-irrigated areas.
- As the Zero Budget Natural Farming covers all kinds of agro climatic areas, it is mentioned to be suitable for all kinds of crops

- Farmers can get more yields in the first year only giving them a benefit
- The Zero Budget Farming is also seen to ease out the debt pressure on the farmers as they don't have to take loans to buy any inputs for their farming
- Farmers are expected to earn more money per acre and the chances of migration from villages to cities can also lessen.

Zero Budget Natural Farming - Criticism

- The concept of Zero Budget Natural Farming is not well-accepted by the scientific community. National Academy of Agricultural Sciences scientists mentioned that India cannot rely on Zero Budget Natural Farming as there is no scientific validation of the techniques used in Zero Budget Farming.
- As against the name suggests, the farming method does bear a minimum input cost
- The maintenance of the local cow breed is difficult as against those that are used currently
- Organic certification of the crops planted by the Zero Budget Natural Farming will face another hurdle and it might lead to a difficulty in selling the products to the organic brands.

Zero Budget Farming - Conclusion

It is a farming method that Prime Minister Narendra Modi mentioned in the United Nations Conference on Desertification (COP-14) while stating that India is focusing on this method. The farming method offers resilient food systems. Through two of their initiatives:

- [Paramparagat Krishi Vikas Yojana \(PKVY\)](#)
- [Rashtriya Krishi Vikas Yojana \(RKVY\)](#)

The Government of India has been promoting organic farming in the country.