



Zero-Budget Natural Farming

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This article is based on **“Is zero budget natural farming working?”** that appeared in The Hindu Business Line on 14/09/2019. It talks about the benefits and issues related to Zero-Budget Natural Farming.

Addressing the **United Nations conference on desertification (COP-14)**, Indian PM told the global community that India is **focusing on Zero-Budget Natural Farming (ZBNF)**. ZBNF was also highlighted in **budget 2019** in the bid to double farmer's income by 2022.

However, scientists from the **National Academy of Agricultural Sciences** suggested that there is no need for the government to promote ZBNF unless there is proper scientific validation.

Zero Budget Natural Farming

- Zero budget natural farming is a method of **chemical-free agriculture** drawing from traditional Indian practices.
- It was originally promoted by **agriculturist Subhash Palekar**, who developed it in the mid-1990s as an **alternative to the Green Revolution's methods** that are driven by chemical fertilizers and pesticides and intensive irrigation.
- It is a unique model that relies on **Agro-ecology**.
- It aims to bring down the **cost of production to nearly zero** and return to a **pre-green revolution style of farming**.
- It claims that there is **no need** for expensive inputs such as fertilisers, pesticides and intensive irrigation.
- Instead of commercially produced chemical inputs, the ZBNF promotes traditional farm practices like:
 - **Jeevamrutha**: It is a mixture of fresh cow dung and aged cow urine (**both from India's indigenous cow breed**), jaggery, pulse flour, water and soil; to be applied on farmland.

This is a fermented microbial culture that adds nutrients to the soil and

acts as a catalytic agent to promote the activity of microorganisms and earthworms in the soil.

- **Bijamrita:** It is a concoction of neem leaves & pulp, tobacco and green chillies prepared for insect and pest management, that can be used to treat seeds.
- The ZBNF method also promotes **soil aeration**, minimal watering, intercropping, bunds and topsoil mulching and discourages intensive irrigation and deep ploughing.

Benefits of ZBNF

- With the rising cost of external inputs (fertilizers and pesticides), which is the leading **cause of indebtedness and suicide among farmers**. According to the National Sample Survey Office (NSSO) data, **almost 70% of agricultural households** spend more than they earn and more than half of all farmers are in debt.
 - Since in ZBNF there is the need to spend money or take loans for external inputs, the cost of production could be reduced and **farming made into a “zero budget” exercise**.
 - This would **break the debt cycle** for many small farmers and help to envisage the doubling of farmer's income by 2022.
- At a time when chemical-intensive farming is resulting in soil and environmental degradation, a zero-cost environmentally-friendly farming method is definitely a timely initiative.
- It suits all crops in all agro-climatic zones.
- Citing the benefits of ZBNF, in June 2018, **Andhra Pradesh** rolled out an ambitious plan to become **India's first State to practise 100% natural farming by 2024**.

Issues Related to ZBNF

- Sikkim (India's first organic state), has seen some **decline in yields** following conversion to organic farming.
- Many farmers have **reverted to conventional farming** after seeing their ZBNF returns drop after a few years.
- While ZBNF has definitely helped preserve soil fertility, its role in boosting productivity and farmers' income **isn't conclusive** yet.
- ZBNF advocates the **need of an Indian breed cow**, whose numbers are **declining at a fast pace**.

According to Livestock Census, the country's total population of indigenous and nondescript cattle has dropped by 8.1%.
- **Low expenditure by the government:** Last year, the government launched Rashtriya Krishi Vikas Yojana, a flagship Green Revolution scheme with an allocation of Rs 3,745 crore for the financial year 2019-20.

Whereas the Paramparagat Krishi Vikas Yojana, which was meant to promote

organic farming and soil health has been allocated Rs 325 crore only.

Way Forward

There is a host of structural marketing issues which needs to be addressed first before aiming to achieve the ambitious goal of ZBNF. For example:

- Strengthening of agricultural market infrastructure.
- Extending the procurement mechanism to all foodgrain and non-foodgrain crops to all States.
- Implementation of price deficiency payment system for selected crops.
- Fixing MSP in consonance with the cost of cultivation.
- Abolishment of minimum export price for agricultural commodities.
- Enacting legislation on 'right to sell at MSP' needs immediate attention.
- MGNREGS must also be linked with farm work in order to reduce the cost of cultivation which has escalated at a faster pace over the past few years.

Unless these issues are resolved, the doubling of farm income will remain to be a distant reality. In this context, farmers' ease of doing business and ease of living should also be taken into consideration.

Drishti Mains Question

Critically analyse the role Zero Budget Natural Farming can play in achieving the goal of doubling farmer's income by 2022.

Sources: