

Zero Budget Natural Farming

What is the issue?

\n\n

\n

- Andhra Pradesh CM announced that the State would fully embrace Zero Budget Natural Farming (ZBNF).

\n

- India could consider replicating the model for the country.

\n

\n\n

\n

Technology is simply the systematic application of knowledge for practical purposes

\n

\n\n

What is ZBNF?

\n\n

\n

- Zero Budget Natural farming (ZBNF) is said to be “do nothing farming”.

\n

- It involves the application of nature’s principles in farming.

\n

- It practises no-till, no chemical use in farming.

\n

- Alongside, dispersal of clay seed balls to propagate plants is done.

\n

- The key aspects integral to it and which require locally available materials are:

\n

\n\n

\n

- i. seeds treated with cow dung and urine

\n

- ii. soil rejuvenated with cow dung, cow urine and other local materials to increase microbes
\n
- iii. cover crops, straw and other organic matter to retain soil moisture and build humus
\n
- iv. soil aeration for favourable soil conditions
\n

\n\n

- \n
- These methods are combined with natural insect management methods when required.
\n
- *The ZBNF is a technology of the future with a traditional idiom.*
\n

\n\n

What are the benefits?

\n\n

- \n
- In ZBNF, **yields** of various cash and food crops have been found to be significantly higher.
\n
- E.g. yields from ZBNF plots were found on average to be 11% higher for cotton than in non-ZBNF plots.
\n
- The yield for Guli ragi (ZBNF) was 40% higher than non-ZBNF.
\n
- **Input costs** are near zero as no fertilizers and pesticides are used.
\n
- **Profits** in most areas under ZBNF were from higher yield and lower inputs.
\n
- Model ZBNF farms were able to **withstand drought and flooding**.
\n
- Notably these are the serious emerging concerns with regard to **climate change**.
\n

\n\n

- \n
- Planting multiple crops and border crops on same field provides **varied income and nutrient sources**.
\n

- Overall, there is

\n

\n\n

\n

- i. reduced use of water and electricity
- ii. improved health of farmers
- iii. flourishing of local ecosystems and biodiversity
- iv. no toxic chemical residues in the environment
- v. improvements in soil, biodiversity, livelihoods, water
- vi. climate resilience
- vii. women's empowerment and nutrition

\n

\n\n

How is ZBNF better than organic farming?

\n\n

\n

- Organic agriculture often involves addition of materials required in bulk and have to be purchased.
- These are large amounts of manure, vermicompost and other materials.
- These turn out to be expensive for most small farm holders.

\n

\n\n

What is the Andhra Pradesh model?

\n\n

\n

- **Initiatives** - Successful pilot programmes were initiated in 2015 and partnerships for gaining inputs were taken up.
- With this, Andhra Pradesh has become the first State to implement a ZBNF policy.

\n

- **Coverage** - This year, 5 lakh farmers will be covered, with at least one panchayat in each of the mandals shifting to this new method.
\n
- By 2021-22, the programme is to be implemented in every panchayat, with full coverage by 2024.
\n
- **Strategies** - Tenant farmers and day labourers are being trained.
\n
- This ensures that through the ZBNF, livelihoods for the rural poor are being enhanced.
\n
- Farmer-to-farmer connections are vital to the success of the programme.
\n
- Establishment of farmer's collectives such as Farmer Producer Organisations are encouraged.
\n
- **Funding** - The Government of India provides funding through the Rashtriya Krishi Vikas Yojana and Paramparagat Krishi Vikas Yojana.
\n
- Additional resources have been made available through various philanthropic organisations.
\n
- **Participation** - Andhra Pradesh has supported and learned from its many effective civil society organisations.
\n
- This include Watershed Support Services and Activities Network, Centre for Sustainable Agriculture, Deccan Development Society.
\n
- The scaling up relies primarily on farmers and local groups; in all, very much a bottom-up process.
\n
- Open-minded enlightened political leaders and administrators have been fundamental in this process.
\n
- **Geography** - Andhra Pradesh has a combination of delta regions, arid and hilly tribal areas.
\n
- Thus the districts in Andhra Pradesh are similar to those in other parts of the country.
\n
- It could therefore serve as a workable model for replication.
\n
- The drought-prone Rayalaseema region (Andhra Pradesh) is reportedly seeing promising changes in farms with the ZBNF.

\n

\n\n

What is the way ahead?

\n\n

\n

- The programme can have a positive effect on many of the sustainable development goals.

\n

- As ZBNF is applied in India's various agro-ecological zones, making farmers the innovators is essential.

\n

- Agricultural scientists in India have to rework their strategy so that farming is in consonance with nature.

\n

- The dominant paradigm of chemical-based agriculture has failed and regenerative agriculture is the emerging new science.

\n

\n\n

\n\n

Source: The Hindu

\n\n

\n

