Zero Budget Natural Farming

What is the issue?

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- Andhra Pradesh CM announced that the State would fully embrace Zero Budget Natural Farming (ZBNF).
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- India could consider replicating the model for the country.
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Technology is simply the systematic application of knowledge for practical purposes

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What is ZBNF?

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- Zero Budget Natural farming (ZBNF) is said to be “do nothing farming”.
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- It involves the application of nature’s principles in farming.
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- It practises no-till, no chemical use in farming.
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- Alongside, dispersal of clay seed balls to propagate plants is done.
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- The key aspects integral to it and which require locally available materials are:
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i. seeds treated with cow dung and urine
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ii. soil rejuvenated with cow dung, cow urine and other local materials to increase microbes
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iii. cover crops, straw and other organic matter to retain soil moisture and build humus
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iv. soil aeration for favourable soil conditions
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- These methods are combined with natural insect management methods when required.
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- *The ZBNF is a technology of the future with a traditional idiom.*
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What are the benefits?

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- In ZBNF, **yields** of various cash and food crops have been found to be significantly higher.
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- E.g. yields from ZBNF plots were found on average to be 11% higher for cotton than in non-ZBNF plots.
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- The yield for Guli ragi (ZBNF) was 40% higher than non-ZBNF.
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- **Input costs** are near zero as no fertilizers and pesticides are used.
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- **Profits** in most areas under ZBNF were from higher yield and lower inputs.
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- Model ZBNF farms were able to **withstand drought and flooding**.
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- Notably these are the serious emerging concerns with regard to **climate change**.
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- Planting multiple crops and border crops on same field provides **varied income and nutrient sources**.
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- Overall, there is
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i. reduced use of water and electricity
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ii. improved health of farmers
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iii. flourishing of local ecosystems and biodiversity
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iv. no toxic chemical residues in the environment
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v. improvements in soil, biodiversity, livelihoods, water
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vi. climate resilience
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vii. women’s empowerment and nutrition
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How is ZBNF better than organic farming?

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

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- **Initiatives** - Successful pilot programmes were initiated in 2015 and partnerships for gaining inputs were taken up.
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- With this, Andhra Pradesh has become the first State to implement a ZBNF policy.
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- **Coverage** - This year, 5 lakh farmers will be covered, with at least one panchayat in each of the mandals shifting to this new method.
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- By 2021-22, the programme is to be implemented in every panchayat, with full coverage by 2024.
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- **Strategies** - Tenant farmers and day labourers are being trained.
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- This ensures that through the ZBNF, livelihoods for the rural poor are being enhanced.
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- Farmer-to-farmer connections are vital to the success of the programme.
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- Establishment of farmer's collectives such as Farmer Producer Organisations are encouraged.
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- **Funding** - The Government of India provides funding through the Rashtriya Krishi Vikas Yojana and Paramparagat Krishi Vikas Yojana.
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- Additional resources have been made available through various philanthropic organisations.
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- **Participation** - Andhra Pradesh has supported and learned from its many effective civil society organisations.
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- This include Watershed Support Services and Activities Network, Centre for Sustainable Agriculture, Deccan Development Society.
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- The scaling up relies primarily on farmers and local groups; in all, very much a bottom-up process.
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- Open-minded enlightened political leaders and administrators have been fundamental in this process.
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- **Geography** - Andhra Pradesh has a combination of delta regions, arid and hilly tribal areas.
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- Thus the districts in Andhra Pradesh are similar to those in other parts of the country.
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- It could therefore serve as a workable model for replication.
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- The drought-prone Rayalaseema region (Andhra Pradesh) is reportedly seeing promising changes in farms with the ZBNF.

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What is the way ahead?

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- The programme can have a positive effect on many of the sustainable development goals.
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- As ZBNF is applied in India’s various agro-ecological zones, making farmers the innovators is essential.
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- Agricultural scientists in India have to rework their strategy so that farming is in consonance with nature.
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- The dominant paradigm of chemical-based agriculture has failed and regenerative agriculture is the emerging new science.
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Source: The Hindu

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