Zero budget natural farming

ICCOA
The Origin of the movement-
Zero Budget Natural Farming. (ZBNF)

• Small farmers felt seeds, inputs, and markets were inaccessible and expensive for them.

• They were caught in a vicious cycle of debt, because of the high production costs, high interest rates for credit, the volatile market prices of crops, the rising costs of fuel, energy and private seeds.

• Debt is a problem for farmers. ‘zero budget’ farming promises to end the reliance on loans by drastically cutting production costs.

• The word ‘budget’ refers to credit and expenses, thus the phrase 'Zero Budget' means without using any credit, and without spending any money on purchased inputs. 'Natural farming' means farming with Nature and without chemicals.
Development of ZBNF

- Small farmers mobilized on their own and organized many massive ZBNF training camps.

- The main central state level activity is the training camps, taught by Palekar. -5 days X 8 hours. 300 to 5000 farmers attended with an affordable fee of Rs. 300/ person including housing and meals. Volunteers helped in cooking and cleaning. The training workshop covered issues from philosophy, to ecology, ZBNF practices, to success stories of farmers.

- Many Hindu religious institutions provided accommodation, food and space for training camps, supported by local people and businesses.
The four pillars of ZNBF

1. Jeevamrutha

- **jeevamrutha** is a fermented microbial culture to increase the microbial and earthworm activity in the soil. During the 48 hour fermentation process, the bacteria in the cow dung and urine multiply by feeding the pulse flour in the solution. Virgin soil is added to inoculate native bacteria and other organisms. Jeevamrutha helps to prevent plant diseases. This is required in the first 3 years of the transition.

- **Preparation**: Take 200 lit of water + 10 Kg fresh cow dung + 10 lit aged cow urine + 2 Kg of Jaggery + 2 Kg of pulse flour + handful of soil from farm-bund. Stir and let it ferment for 48 hours. Now Jeevamrutha is ready.

- **Application**: 200 liters of Jeevamrutha is sufficient for one acre of land. Apply twice a month with irrigation water or as 10% foliar spray.
The four pillars of ZNBF
2. Bijamrutha

• Beejamrutha is for treating seed, seedlings and planting material. It is effective in protecting young roots from fungus as well as from soil-borne and seedborne diseases. It is composed of local cow dung, a powerful natural fungicide, and cow urine, a strong anti-bacterial liquid, lime and soil.

• Add Bijamrutha to the seeds of any crop by mixing it by hand; dry them and sow. For leguminous seeds, just dip them quickly and let them dry.
The four pillars of ZNBF
3. Mulching.

a. **Soil Mulch**: Protects topsoil during cultivation and tilling. It promotes aeration and water retention in the soil. Avoid deep ploughing.

b. **Straw Mulch**: covering the soil with dead matters of any living organism. (plants, animals, etc).—dry organic material decomposes and form humus.

c. **Live Mulch** with symbiotic intercrops and mixed crops with monocots and dicots grown in the same field. Legumes are nitrogen-fixing plants. Monocots supply other elements like potash, phosphate and sulphur.
The four pillars of ZNBF

4. Whapasa - moisture

- what roots need is water vapor not much irrigation water. Whapasa is the condition where both air and water molecules are present in the soil. Reduce irrigation - only at noon - in alternate furrows. Significant decline in need for irrigation is observed by ZBNF farmers.
Other important principles of ZBNF and points to note

• **Intercropping** – Because of this, ZBNF gets its “Zero Budget” name. Small costs incurred in cropping is compensated by the additional income, making farming a close to zero budget activity. Crop and tree associations work well for the south Asian context.

• **Contour bunds** – contours bunds promote maximum efficiency for different crops.

• **Local species of earthworms**: Revival of local deep soil earthworms through increased organic matter is most recommended than vermicompost.

• **Cow dung**- Dung from the Bos indicus (humped cow) is most beneficial and has the highest concentrations of micro-organisms as compared to European cow breeds such as Holstein. The entire ZBNF method is centred on the Indian cow.
Impact of ZBNF

A survey carried out by LVC (La Via Campesina)* suggests that ZBNF brings about a variety of social and economic benefits.

A majority of respondents - saw improvements in yield, soil conservation, seed diversity, quality of produce, household food autonomy, income, and health.

There was reduced farm expenses and need for credit, one of the major problems plaguing Indian farmers.

*Contact: lvcweb@viacampesina.org
Feedback from a ZBFN farmer.

“In ZBNF our expenses are very low. It doesn’t matter what the yield is, I still make a profit because my costs are negligible. Plus I’ve added intercrops to this, so I get income from many crops, not just one. Yield is not an important concept for us.”

— ZBFN farmer, Belgaum
• Case study provided by La Via Campesina Contact: lvcweb@viacampesina.org  ZBNF in Karnataka.
• Subhash Palekar’s website: http://bit.ly/1Pk3a8p
• (http://palekarzerobudgetspiritualfarming.org/home.aspx)
Thank you