FROM FOOD INSECURITY TO FARMER LEADERSHIP: JYOTI'S SMALL FARM TRANSFORMATION

Bobbili Jyoti is a young smallholder farmer from Santhapalli village in Anakapalli District of Andhra Pradesh. After completing her education, she worked briefly as an HR professional in Vijayawada before returning to her village following pregnancy. She then became actively involved in farming alongside her father-in-law and other family members.

TOWARDS NATURAL FARMING

At the time, the family practised conventional chemical farming, relying heavily on fertilisers and pesticides. Over the years, prolonged chemical use reduced soil fertility and biological activity. Pest incidence increased, irrigation needs rose, and cultivation costs continued to rise, while yields and incomes remained unstable.

Like many small farmers, the family initially believed chemical inputs were essential to maintain productivity. However, this approach made them increasingly vulnerable to rising input costs, declining soil health, and uncertain returns, prompting a gradual shift toward natural farming.
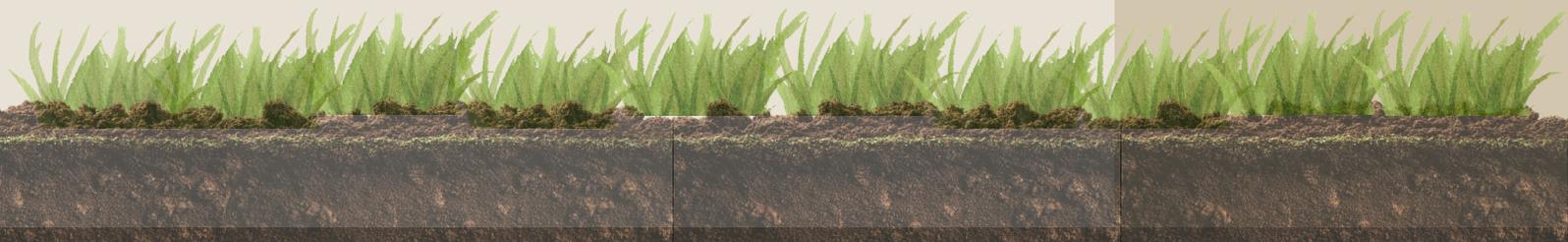
HEALTH-DRIVEN FARMING SHIFT

- During pregnancy, Jyoti faced serious concerns related to food quality and nutrition, as her baby's weight gain was inadequate. This experience led her to question the safety and nutritional value of the food her family consumed daily and prompted a search for healthier alternatives.

- Motivated by household health, Jyoti and her husband began exploring chemical free farming. Initially, her father-in-law was resistant and feared that abandoning chemicals would lead to yield losses. At this stage, Jyoti did not yet have the technical knowledge to address these concerns.

- A turning point came when a Community Resource Person from Rythu Sadhikara Samstha conducted awareness sessions on natural farming in Santhapalli. These sessions explained the links between chemical farming, soil degradation, pest resurgence, and declining food quality. Natural farming emerged as a scientifically grounded alternative rather than a risky experiment.

FROM PRACTITIONER TO FARMER SCIENTIST

In August 2024, Jyoti enrolled in the Farmer Scientist Course at the Indo German Global Academy for Agroecology Research and Learning under the Educated Young Practitioner initiative. She currently works as a Mentor Intern, combining structured learning with field experimentation and farmer engagement.erventions.

Through the course, Jyoti began treating her farm as a learning laboratory. She recorded inputs, yields, costs, soil indicators, and nutrition outcomes across seasons. Field based trials helped her optimise bio stimulant application rates and demonstrated that increased crop diversity itself reduced pest pressure and the need for external interventions.

OUTCOMES AND IMPACT

Natural farming transformed Jyoti's farm from a low-margin, risk-prone system into a diversified, resilient one. Crop diversity rose from 8 to 25 crops under the A Grade model and from 10 to 26 under the ATM model.

Her annual income increased from ₹63,700 to ₹2,00,540 by the end of Semester 3 of the Farmer Scientist Course, while cultivation costs fell sharply from 42% to 12%.

Soil regeneration led to significant water savings, reducing irrigation cycles from 40 to 15. Improved soil structure, biological activity, and stronger root systems enhanced water retention and lowered dependence on external water sources.

In 2020, Jyoti began experimenting with natural farming on a 0.1-acre plot. She prepared Jeevamrutham and Beejamrutham on her farm and adopted mulching to conserve soil moisture, allowing her to closely monitor changes without risking her entire landholding.

Within a month, she earned ₹5,000 from leafy greens grown on this plot. Motivated by these results, she gradually expanded natural farming, which led to improved soil structure, increased earthworm activity, and reduced irrigation needs over time.

As most inputs were prepared on the farm using resources from her indigenous cow, cultivation costs declined significantly. Crop resilience and net incomes improved, the family gained access to chemical-free food, and visible field results slowly transformed community scepticism into curiosity.

DIVERSIFIED FARMING MODELS

A Grade Model : Under the A Grade model on 1.0 acre, coconut was cultivated as the main crop along with fruit crops such as papaya, banana, lemon, mango, and guava. A separate block was used for vegetables including brinjal, chilli, tomato, broad beans, okra, cowpea, maize, and marigold. This diversification improved land use efficiency and reduced the risk of crop failure.

ATM Model : On 0.20 acre, she adopted the Any Time Money model using relay cropping with vegetables, leafy greens, tubers, and creepers. Together, these models ensured year round household nutrition and a steady flow of income from a small landholding.

Farmer-Led Learning, Lasting Change

Farmer Jyothi with Farmer Scientists

"Natural farming helped me restore my soil, stabilise my income, and share knowledge with other farmers. What worked on my farm can work for many small farmers."
-Jyoti, Farmer

Farmer Jyothi in her field

-------- Farmer-Led Learning, Lasting Change --------

THE JOURNEY CONTINUES..