

1. Traditional Farming to Integrated Enterprise: A Journey of Sustainable Growth

2. Location: Village: Tutusinga, Block: Boudh, District- Boudh
Agro-climatic zone- Western Central Table Land Zone.

3. Profile of the farmer:

- **Name of farm woman:** Mrs. Anusuya Nayak
- **Landholding:** Landless.
- **Livelihood base:** Farming & Vending.



- **Socio-economic background:** Smt. Anusuya Nayak is a landless farm woman from Boudh district with limited and irregular sources of income. Her husband works as a painter, and she supplements the family income through small-scale vending. To sustain her family, she leased two small plots of land (4 decimals each) for traditional flower cultivation and vegetable production while maintaining a small livestock unit comprising 12 goats and 10 sheep. Despite her hard work, low productivity, inadequate technical knowledge, and limited access to scientific management practices restricted the profitability of her enterprises. Determined to improve her family's livelihood, she actively searched for opportunities to enhance her income through enterprise development, particularly in goat rearing and traditional flower cultivation, but lacked proper technical guidance and institutional support. During an extension programme, she came into contact with scientists from KVK, Boudh and officials from line departments. After interacting with them and expressing her aspiration to increase her income through sustainable agriculture, she was guided towards scientific goat rearing and traditional flower cultivation under an integrated farming approach, which marked the beginning of her entrepreneurial journey.

4. KVK Intervention:

- **Year and season of intervention:** The intervention was initiated during the Rabi season of 2023, when Mrs. Anusuya Nayak came in contact with Krishi Vigyan Kendra (KVK), Boudh through various training and extension programmes. Based on her interest and available farm resources, KVK provided technical guidance for diversified livelihood through scientific goat rearing and commercial flower cultivation.
- **Technologies demonstrated (name, scientific basis, rationale) :** With technical support from KVK, Boudh, and in convergence with the Department of Fisheries & Animal Resources Development (F&ARD), Mrs. Anusuya Nayak adopted scientific goat rearing

practices, including improved housing, balanced feeding, timely vaccination, deworming, scientific breeding, and health care management, resulting in better animal health and enhanced income. Simultaneously, she was introduced to commercial floriculture with improved flower varieties, scientific nursery raising, proper spacing, integrated nutrient and pest management, and efficient irrigation practices. These technologies were promoted to enhance productivity, reduce production losses, ensure year-round income, and diversify the farm enterprise for better economic returns.

- **Stakeholder involvement and participatory planning:** The intervention was implemented through a participatory approach involving KVK, Boudh, the beneficiary, local veterinary officials, the Department of Horticulture, and fellow farmers. After assessing her resources, interests, and market opportunities, a suitable livelihood plan integrating commercial floriculture with scientific goat rearing was prepared. Continuous technical backstopping, on-field advisory services, skill-oriented training, and regular monitoring by KVK Scientist enabled Mrs. Anusuya Nayak to successfully adopt the improved technologies and establish herself as a progressive farm entrepreneur.

5. Technology/Application Details:

- **Description of technology/practice introduced:** KVK, Boudh introduced an integrated livelihood model for Smt. Anusuya Nayak by promoting scientific goat rearing and traditional flower cultivation through training, frontline demonstrations, capacity-building programmes, and regular field-based technical guidance. In convergence with the Department of Fisheries & Animal Resources Development (F&ARD), scientific goat rearing practices such as improved housing, balanced feeding, timely vaccination, deworming, breeding management, and scientific health care were demonstrated. Simultaneously, improved practices for traditional flower cultivation, including quality planting materials, proper spacing, integrated nutrient management, irrigation, and eco-friendly pest and disease management, were introduced. These interventions enhanced productivity, diversified income sources, strengthened livelihood security, and improved the overall economic resilience of the beneficiary.
- **Scientific Principle:** The technologies were based on the principles of scientific livestock management and improved crop production practices to optimize resource utilization, improve animal health and crop performance, reduce production losses, and enhance the productivity and profitability of integrated farming enterprises.
- **Mode of implementation (demo, training, capacity building):** The interventions were implemented through a combination of on-campus and off-campus training programmes,

frontline demonstrations, capacity-building activities, and regular field visits by KVK scientists. Continuous technical guidance and handholding support were provided on scientific goat rearing and traditional flower cultivation, while convergence with the Department of F&ARD ensured access to veterinary services, vaccination, deworming, and other essential inputs. The participatory approach enabled the beneficiary to effectively adopt the recommended technologies and establish sustainable livelihood enterprises.

6. Outcomes and Impact

- **Change in yield/productivity (with data):** After adopting scientific goat rearing and improved cultivation practices, Smt. Anusuya Nayak significantly enhanced the productivity and profitability of her integrated farming enterprises. Scientific management of her 12 goats and 10 sheep improved animal health, survival, and reproductive performance. She now sells 3–4 goat kids twice a year, generating an annual income of approximately ₹80,000 from goat rearing, while sheep rearing contributes around ₹20,000 annually. Traditional flower cultivation on 4 decimals has become her most remunerative enterprise, providing a seasonal income of about ₹1.20 lakh, whereas vegetable cultivation on another 4 decimals generates an additional ₹30,000 annually. Collectively, these enterprises generate an annual income of approximately ₹2.50 lakh, providing a stable and sustainable livelihood and substantially improving the economic well-being of her family.
- **Economic benefits (before vs. after intervention):** Before the intervention, the family depended mainly on irregular wage labour, vending, and low-income traditional farming practices. After adopting scientific goat rearing and flower cultivation, the beneficiary developed multiple income sources, resulting in improved household income, regular cash flow, and greater financial security.
- **Risk reduction/resilience achieved:** Diversification through livestock, flower cultivation, and vegetable production reduced dependence on a single source of income and minimized livelihood risks arising from seasonal unemployment, crop failure, and market fluctuations. The integrated enterprises provided year-round income opportunities and strengthened household resilience.
- **Environmental benefits (soil health, water use, biodiversity, etc.) :** Efficient recycling of livestock manure in crop cultivation improved soil fertility and reduced the dependence on external inputs. The integration of livestock with flower and vegetable cultivation

enhanced on-farm biodiversity, promoted efficient resource utilization, and contributed to environmentally sustainable farming practices.

7. Indicators of Sustainability/Adoption

- **Number of farmers replicating:** The success of Smt. Anusuya Nayak's integrated goat rearing and traditional flower cultivation enterprise has encouraged 10–15 neighbouring farmers and rural women to adopt similar livelihood activities after observing its economic viability and receiving guidance from KVK, Boudh.
- **Inclusion in panchayat/block-level planning:** The enterprise has been showcased by KVK, Boudh during farmer-scientist interactions, training programmes, and extension activities, motivating local stakeholders to promote scientific livestock rearing and flower cultivation as viable livelihood options under block-level agricultural development initiatives.
- **Integration with other schemes (MGNREGS, PKVY, OLM, etc.):** The intervention was strengthened through convergence with the Department of Fisheries & Animal Resources Development (F&ARD) for scientific livestock health care and advisory services. The beneficiary was also linked with Mission Shakti/OLM and other line departments to facilitate capacity building, enterprise development, and access to government support services.
- **Institutional mechanisms supported:** KVK, Boudh provided continuous technical backstopping through regular field visits, advisory services, capacity-building programmes, and follow-up support. The convergence between KVK, F&ARD, Mission Shakti/OLM, and local line departments created an enabling institutional framework for sustaining and expanding the livelihood enterprises.

8. Challenges and Learnings

- **Implementation Difficulties:** Initially, the beneficiary faced constraints such as limited financial resources, lack of scientific knowledge on goat rearing and flower cultivation, limited access to quality inputs, and the challenge of managing enterprises on leased land. Continuous technical guidance from KVK helped overcome these constraints.

- **Farmer Perceptions and Behavior Change:** Through regular training, demonstrations, and field-level support, Smt. Anusuya Nayak gradually shifted from traditional practices to scientific management of goat rearing and flower cultivation. Increased productivity and income strengthened her confidence and motivated her to adopt improved technologies as sustainable livelihood options.

● **Lessons for Upscaling and Replication:** The case demonstrates that scientific goat rearing integrated with traditional flower cultivation can be a profitable livelihood model for landless and smallholder farm families. Timely capacity building, continuous technical backstopping, and convergence with line departments are key factors for successful adoption and replication of such enterprises by other rural households.

9. Policy and Programmatic Implications

- **Suggestions for integration into broader programs:** The integrated model of scientific goat rearing and traditional flower cultivation may be promoted through KVK, State Department of Agriculture, F&ARD, Mission Shakti/OLM, ATMA, and other rural livelihood programmes to enhance income and livelihood security of landless and smallholder farm families. Capacity building, demonstrations, and regular technical handholding should be incorporated into programme implementation for wider adoption.
- **Need for convergence, investment, or policy tweak:** Greater convergence among KVK, F&ARD, Mission Shakti/OLM, Panchayati Raj Institutions, and financial institutions is needed to facilitate timely access to quality breeding stock, quality planting materials, veterinary services, credit, input support, and market linkages. Investment in enterprise development, value addition, and market infrastructure will further enhance the sustainability and scalability of integrated livestock and floriculture-based livelihood models.

9. **Testimonials and Quotes:** The scientific guidance and continuous support from KVK, Boudh transformed my interest in goat rearing and traditional flower cultivation into a sustainable enterprise. Today, my integrated farming enterprises generate a stable income and have improved the living standards of my family. I encourage other rural women to participate in KVK training programmes and adopt scientific farming practices for a better livelihood.

- Mrs. Anusuya Nayak, Progressive Farm woman, Boudh.

(କେଭିକେ, ବୌଦ୍ଧର ବୈଜ୍ଞାନିକ ପରାମର୍ଶ ଏବଂ ନିରନ୍ତର ସହଯୋଗ ମୋର ଛେଳି ପାଳନ ଓ ପାରମ୍ପରିକ ଫୁଲ ଚାଷ ପ୍ରତି ଆଗ୍ରହକୁ ଏକ ସ୍ଥାୟୀ ଉଦ୍ୟମରେ ପରିଣତ କରିଛି। ଆଜି ମୋର ସମନ୍ୱିତ କୃଷି ଉଦ୍ୟମ ଏକ ସ୍ଥିର ଆୟର ଉତ୍ସ ହୋଇପାରିଛି ଏବଂ ମୋ ପରିବାରର ଜୀବନଯାପନର ମାନକୁ ଉନ୍ନତ କରିଛି। ମୁଁ ଅନ୍ୟ ଗ୍ରାମୀଣ ମହିଳାମାନଙ୍କୁ କେଭିକେର ପ୍ରଶିକ୍ଷଣ କାର୍ଯ୍ୟକ୍ରମରେ ଯୋଗଦେଇ ବୈଜ୍ଞାନିକ କୃଷି ପ୍ରଣାଳୀ ଆପଣାଇ ଉନ୍ନତ ଜୀବିକା ଗଢ଼ିବାକୁ ଆହ୍ୱାନ କରୁଛି।

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10. Supporting Visual Evidence:



Field support by KVK Scientist, & Happy faces of Anusuya after harvesting of Marigold



Regular field monitoring by KVK Scientist



Sd/-

**Sr. Scientist & Head
KVK, Boudh**