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World Vision

NOBO JATRA - NEW BEGINNING

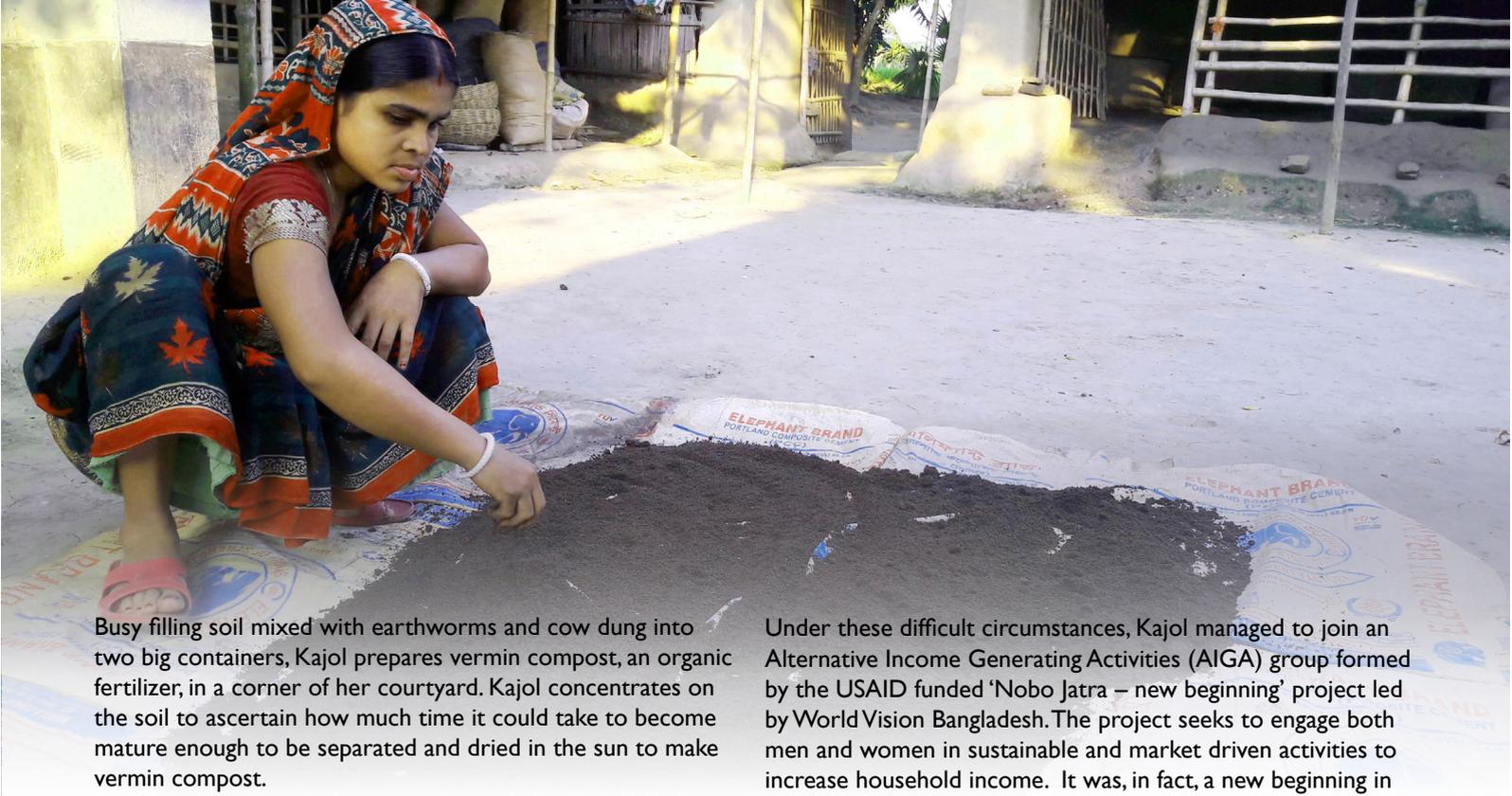
USAID's Development Food Security Activity



Success Story

Vermin compost: a sustainable, climate smart technique creating opportunities for increased household income in south west Bangladesh





Busy filling soil mixed with earthworms and cow dung into two big containers, Kajol prepares vermin compost, an organic fertilizer, in a corner of her courtyard. Kajol concentrates on the soil to ascertain how much time it could take to become mature enough to be separated and dried in the sun to make vermin compost.

Kajol Rani lives with her husband Ashok Kumar, Akash, her seven year old son and mother-in-law in a village in Shyamnagar, a remote sub district in south west Bangladesh. Being a day laborer, Ashok Kumar, finds it difficult to find regular work and earn enough to support the household. Kajol, therefore, struggles to maintain family expenses including her child's tuition fees and the family live hand to mouth. Though she wants to do something for the family, there are limited opportunities for income generation, particularly for women in south west Bangladesh. Also, prevalent cultural norms inhibit women's participation in paid work.

Local communities in south west Bangladesh struggle with recurrent natural disasters like cyclones, tidal surges and scarcity of safe drinking water. Household well-being is affected by shocks and stresses directly related to these disasters. Moreover, yields from rice cultivation have substantially reduced due to the shortage of cultivable lands caused by high levels of salinity intrusion from frequent inundation. Extensive shrimp farming that requires salt water in Ghers also harms the soil making it less productive.

To meet increasing demand, local farmers have been using chemical fertilizers to grow crops faster and increase production. However, excessive use of chemical fertilizers, in the long run, destroys soil productivity by depleting organic materials and hampers sustainability of yields. The nitrogen in these fertilizers contributes to global warming, too. It contaminates the nearby water sources and disrupts the ecosystem of water bodies.

Last year Ashok Kumar, Kajol's husband, received a loan from one of his rich neighbors. He took it at a high interest rate to repair the family home. Ashok thought that he could repay the loan without any problem-but in reality, he could not repay the installments of the loan because of irregular income. Instead, Ashok agreed to work for free in the rich neighbor's Gher until the loan was repaid. Naturally, these exploitative conditions further reduced Kajol and Ashok's resilience capacities and Kajol struggled to balance family expenses.

Under these difficult circumstances, Kajol managed to join an Alternative Income Generating Activities (AIGA) group formed by the USAID funded 'Nobo Jatra – new beginning' project led by World Vision Bangladesh. The project seeks to engage both men and women in sustainable and market driven activities to increase household income. It was, in fact, a new beginning in Kajol's life when she enrolled herself in a two days' training on vermin compost production and marketing. Kajol gained practical knowledge and skills on vermin compost production and sales, market linkages, quality and income expenditure analysis. She also received some inputs – two mangers and 300 grams of live earth worms. The benefits of using Vermin Compost include reduction in soil erosion and soil run-off. Also, the vegetables and crops produced by using compost in the soil are more nutritious than the food crops produced by using chemical fertilizers.

Given that traditional livelihoods are compromised due to climate challenges, Nobo Jatra used the findings of a deeply contextualised market assessment to identify appropriate alternative livelihoods for 18,000 poor beneficiaries, about 60% of whom are ultra-poor women living on less than \$1.90 per day. Women are being trained in diverse categories of alternative livelihood activities that include livestock rearing, jute handicrafts, embroidery, bamboo products manufacturing, and vermin compost production. The training varies in duration from two days to two weeks depending on the categories of trade. Resource persons from relevant government department such as the Department of Agricultural Extension are usually hired as trainers to conduct these trainings. Hundreds of ultra-poor women like Kajol attend to develop their skills in different trades. The project also facilitates to connect the producers with buyers so that they can sell their products in the local market.

By leveraging the skills and input provided by the project, Kajol started producing vermin compost in her small yard and has gradually been earning income since June 2018 by selling the compost to local Gher owners and farmers. This income is building the household's adaptive capacity in the face of shocks like getting into debt and slowly improving their living conditions.

Significantly, Kajol has completely stopped using chemical fertilizers in favour of vermin compost and is cultivating potatoes, arum, brinjal, beetroot, and garlic. This technique is

cost effective as Kajol is saving on fertilizer costs as well. By combining the sales with these benefits, her income stands at about \$111 until February 2019. For women living in ultra-poverty in remote south west Bangladesh, where women earn only 14.9% of household income, Kajol's earnings are significant.

Till date, Kajol has spent only \$6 to buy cow dung and she is hopeful that her income will double when she will increase production of compost in two more mangers in the near future.

Proper linkage with input suppliers is also essential for producers like Kajol to build a sustainable business. Existing producers, including Kajol, have been acting as input providers within a few weeks of starting her business, as they can breed earth worms and sell at a price of approximately \$15 per kilograms in the local market.

Shomir Mondol, a local buyer, has been buying the compost from Kajol and other producers and has now taken this on as a seasonal business,

“When the vermin compost groups had started production in Bhurulia, I became interested and started to buy and sell. I had purchased vermin compost from many of those group members; Kajol Rani is one of them”.

Farmers and Gher owners of different villages are the main customers of Shomir. Due to positive effects on the soil quality, consistent growth and yield, and good taste of organic crops and vegetables, the vermin compost has huge demand for surrounding farmers. The hatchery or Gher owners use it as it is food for the smaller plants in the water.

When asked about vermin compost, the Agricultural Officer of the Department of Agricultural Extension in Shyamnagar highly appreciated the Nobo Jatra interventions –

“The project must promote the income opportunity and should widely extend to other areas of the sub district”.

In last three months, Kajol has been able to produce 160 kilograms of compost and earned approximately \$39.

For Kajol the money was a blessing.

“By using my knowledge and skills in vermin compost production, I have started my business and can afford to meet the household expenses. Before involvement with vermin compost production group, I was not confident about earning. Now I can purchase food for my child with my own income through the business,”

There are other women like Kajol who are increasingly embracing this business as an alternative source of income.

“One of my neighbors has learned the techniques and skills from me. She has already bought two mangers and started producing vermin compost to use in her land”

Such bonding social capital consistently contributes to better outcomes of poor households . Kajols neighbors, Rafiqul and Nazma, used chemical fertilizers in the past and now recognize that vermin compost has been much more effective for the steady growth of their plants. The compost also saved them a lot of money as they themselves could produce it with little efforts.

Building upon the linkage with buyers and experts, 421 households in four southern sub-districts have been running this small business. The number is expected to rise after the pilot phase. In its strategic partnership with the Government of Bangladesh (GOB), USAID prioritizes projects that work to improve productivity and agricultural diversity by promoting climate smart technologies, supporting diversified sources of income including off-farm incomes, facilitating greater functionality of market system and improving private sector competitiveness leading to sustainable agricultural development. The trade also enabled women's mobility and access to resources – the two driving forces of women empowerment.

What is Vermin Compost?

The organic vermin compost, used for fertilizing the soil, is made up of soil, cow dung and live earth worms. Organic materials such as decomposed leaves, straws, water hyacinth, vegetable waste, excreta from chicken, etc. can also be added to the cow dung before mixing it with soil. It is considered highly effective for soil fertility compared to the chemical fertilizers .





About 'Nobo Jatra-new beginning'

Nobo Jatra-New Beginning' is a five year USAID Food for Peace Title II Development Food Security Activity that seeks to improve gender equitable food security, nutrition and resilience in southwest Bangladesh. World Vision Bangladesh, together with the World Food Programme and Winrock International and 3 local partner NGOs, undertook the program in September 2015, integrating interventions in MCHN, WASH, agriculture and alternative livelihoods, DRR, good governance and social accountability and gender to achieve its objectives. Nobo Jatra is being jointly implemented in partnership with the Ministry of Disaster Management and Relief (MoDMR) of the Government of Bangladesh in four upazilas under two districts – Dacope and Koyra upazilas in Khulna and Shyamnagar and Kaliganj upazilas in Satkhira – and it aims to reach 856,116 direct beneficiaries.