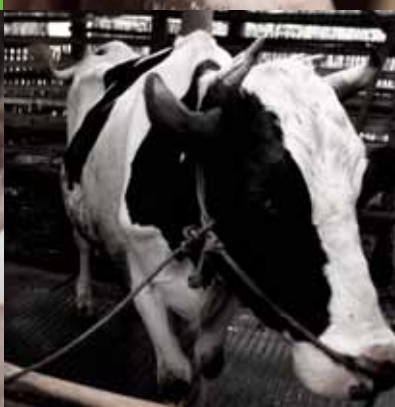




Smart Farmers  
Safe Milk  
Green Cows



## The benefits of well-fed cows and greener pastures

SNV places a high priority on helping to develop a vibrant dairy sector in Indonesia and support the Indonesian Government objective to achieve 50% self-sufficiency across the sector, up from the current 25%. As demand for dairy products continues to increase, driven largely by Indonesia's growing middle class, and the gap between supply and demand continues to widen, SNV sees the dairy sector as a priority.

But a cow in Indonesia does not have the easiest of lives. It battles heat, poor diet, irregular water supply, diseases and pests such as flies and worms. In addition to genetics, its diet and environment directly correlates to the quantity and the quality of its milk.

To turn the Indonesia dairy sector around to the degree required to increase Indonesia's self-sufficiency in milk and improve the livelihood of the 100,000 small scale poor dairy farmers will take an integrated approach. Farmers need to be engaged and trained to adopt new technologies and practices and local companies need to be open to developing inclusive, sustainable supply chains.

The environmental benefits from a smarter dairy sector are also significant. With greenhouse gas emissions continuing to rise and livestock a major contributor, the environmental impact of this is enormous. Reducing carbon footprints in dairying has never been more important.

The livestock sector contributes to greenhouse gases emissions by producing methane gas, emissions through manure, the use of energy and fuel in the supply chain, and through food and water wastage.

The project 'Integrated Action for Dairy: Increasing Milk Production through Improved Feed and Water Provision' aims to increase both production and quality of milk. The improvement of the quality of animal feed and fodder also directly impacts on the reduction of GHG emissions.

The overall strategy is to engage companies and farmers to develop the maize silage market to ensure quality year round roughages. Major project activities will focus initially in Jabung, Malang before expanding to Boyolali and Wonosobo.

The project is a joint intervention between SNV and dairy processor, Nestle; agricultural company Dupont, and Vesteergard,

a company that specialises in pest control solutions, and Kan Jabung, a dairy cooperative. Working together the aim is to improve the livelihoods of 400 farmers in the target areas. The intention is to then scale up to other areas of Indonesia.

## The dairy opportunity

There are around 7,000 dairy farms in the initial project area and of those, an estimated 1,600 farmers belong to the Kan Jabung dairy cooperative. Most farmers have less than 10 cows, with many having as few as three or four and producing on average only nine litres of milk per cow. Farmers are generally poor, earning on average between one to two million IDR (USD 82 - USD 164) per month. Production and quality is constrained by lack of practical skills, quality of animal feed and lack of support services.

Many farmers struggle to feed their livestock, with forage in short supply particularly during the dry season from April to September. This in turn affects their ability to provide for their families. Dairy is the major (daily) income source for the majority of these farmers and it has the potential to be much more profitable.



Lack of consistent quality forage is directly linked to milk production, cattle health and reproduction rates. Quality can be maintained year-round. Simple technologies are capable of making vast improvements to feed management, improving milk production, quality and livestock health.

There are a number of reasons small-scale dairy farmers have not yet embraced silage production: farmers lack the skills to make proper silage and don't always understand its benefits, machine choppers are not always available and feedstock supply is seasonal.

There is also an historical issue with silage production in the project area. In 2006, the dairy cooperative in Malang produced silage but stopped a year later primarily due to supply difficulty of raw material and lack of sales during the wet season. Even though there were

positive results, particularly for milk production and weight gain, farmers stopped using silage after the trial because they considered the weight gain was not directly linked to increased income and the price gap between silage and fresh grass was considered too high.

Farmer perceptions and experiences are therefore critical and highly influenced by perceived benefits. A recent SNV pilot project in East and West Java will be used to guide this project design taking into account farmer feedback and learnings.

The project aims to increase dairy farmer livelihoods through:

- Access and training of new technologies and practices in feeding, animal health and welfare
- Developing the maize silage market to better ensure
  - Uniform quality and regular supply
  - Improved nutrition
  - Extended farmer reach
  - Shorter planting cycles
- Improving quality of feed concentrate
- Introduction of ZeroFly – insecticide-incorporated screens to reduce flies

## Milking inclusive solutions

The Indonesian dairy value chain is predominantly

private-sector-driven, and the potential for further commercialisation, value addition, and growth is largely untapped. SNV will work closely with private companies, cooperatives, and farmers to meet market demands and improve incomes.

The strategic solution for this intervention is threefold:

### • Smart farmers

The project works with farmers to build capacity and knowledge. Farmers will be trained at model farms and through private sector training and support services. Key elements include:

- Support and extension of dairy co-operatives
- Marketing, promotion and education – system to disseminate knowledge on quality requirements
- Developing value chain and networks to protect farmer interests

### • Safe milk

Quality milk and food safety are key to adding value along the dairy supply chain. By working with the local milk cooperative and partner companies the SNV model includes:

- Supply chain development response to market – private sector led
- Advisory service and capacity development – farmer training

# Project Components

- Zerofly pest control – helping to combat disease from flies and increase animal health and productivity

## • Green cows

By focusing on more efficient food and water practices through commercial fodder production the project is paving the way for a greener dairy industry. Production efficiencies reduce wastage and there is longer-term potential to link future models to renewable energy projects such as biogas and the efficient use of biogas slurry, and the introduction of energy-saving technologies.

## Partners in milk

SNV's dairy portfolio includes some 28 projects across 17 countries taking the global approach and adapting it to local conditions and environments. SNV will manage and implement the project in partnership with Nestle and DuPont, jointly supporting the Kan Jabung dairy cooperative working together to develop the dairy market in the Jabung, Malang.

DuPont will share their expertise on maize seeds, supervising maize farmers in planting techniques and marketing and they will also help identify suitable land within the subdistrict to develop a maize plantation with smallholders. DuPont currently delivers a silage

program in Banyuwangi, East Java where maize farmers produce silage and sell it to beef farmers.

Nestle, with a factory located in Pasuruan, East Java, is an active participant in all aspects of the project and is keen to take lessons learnt to scale.

Vesteergard will support the project through provision of its product, ZeroFly, an advanced reduced residue defence against insect pests for livestock and crop protection prior, during and post-harvest, helping to maximize food yield and increase food security.

## Milk that delivers

The 'Integrated Action for Dairy: Increasing Milk Production through Improved Feed and Water Provision' project will deliver the following outcomes:

**Farmers with improved livelihoods** – 400 framers are expected to improve their income from a baseline of between 450,000 to 550,000 IDR per cow per month to between 700,000-1,000,000 IDR per cow per month. A minimum net increase per farmer of 20%.

**Increased productivity** – farmers will improve their skills in fodder management with a production target increase from 10 to 15 litres per day per cow.

## 1. Establishing a sustainable dairy forum

SNV, together with our partners, aims to establish an open forum where market requirements and challenges facing the sector can be discussed and addressed. Farmer support and acceptance of the need to improve silage production and its value and perhaps more importantly its direct relevance to increased income is critical to establishing a sustainable dairy platform. SNV, supported by dairy cooperative staff will conduct a silage development market survey to investigate farmers' willingness to pay and to establish a baseline to track results.

## 2. Strengthening capacity for dairy supply chains

Based on SNV experience in value chain development, inclusive business

and dairy marketing, this component will be informed by the market research, dairy supply chain analysis and business modelling. During the project SNV and its partners will encourage the Kan Jabung cooperative to produce and sell the silage to its members. There are many benefits and efficiencies to be gained by producing silage at the cooperative level including: scalable production levels; better management, uniformity and quality of silage; and easier access to credit through a cooperative silage credit facility for farmers which can be deducted from their milk payments.

The supply chain will be strengthened through a feedstock sourcing plan to guarantee supply and quality. It will connect maize farmers to the cooperative and encourage other nearby farmers to plant maize and establish mutually beneficial contracts between farmers, companies and input suppliers. The project will also develop improved transport solutions as the current distance between maize farmers and the cooperative is too far and costs of transport too high.

## 3. Strengthening capacity for behavioural change communication

Promotion and silage marketing will be pivotal to the project's success. Initiatives include the production and distribution of a training video and other collateral to engage farmers and increase awareness, educate best practice and change attitudes towards silage purchase.

## 4. Monitoring and evaluation

Good oversight of project outcomes and farmer acceptance is essential for long term success and potential up-scaling. SNV will monitor and evaluate progress and keep track of lessons learnt, continually improving and refining the business model. Project components include: regular work in progress sessions; discussion groups; research to test acceptance and a learning workshop at the Provincial level.

## SNV Indonesia

SNV is an international not-for-profit development organisation. Founded in the Netherlands nearly 50 years ago, we have built a long-term, local presence in 38 of the poorest countries in Asia, Africa and Latin America. Our global team of local and international advisors work with local partners to equip communities, businesses and organisations with the tools, knowledge and connections they need to increase their incomes and gain access to basic services – empowering them to break the cycle of poverty and guide their own development.

SNV officially opened its office doors in Indonesia in 2013. We work in close partnership with the Ministry of Home Affairs across three main sectors in Indonesia, water and sanitation, renewable energy and agriculture as well as the cross-cutting issue of climate change. Our philosophy is to partner with local organisations and employ local people, believing that lasting change to the lives of the poor has to start with the people who live and work here.



Our projects





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