We increase incomes and food security by accelerating the adoption of climate smart practices through our SNV Climate & Business approach. Our extensive experience in value chain development and working with the private sector to transform markets in horticulture, dairy, livestock, food and cash crops. Our approach builds on this knowledge to drive the adoption of climate smart practices that will create adaptation and mitigation throughout selected value chains.

The challenge
Low income countries are especially vulnerable to climate change. Major yield reductions are foreseen since 80% of food in Africa is produced by small scale farmers who have limited resources and knowledge to adapt. As a result, farmers and consumers risk a setback into poverty and food insecurity. At the same time, the demand for nutritious foods and proteins is increasing as populations grow; global food production will have to increase by 60% by 2050. Increasing production through current methods will intensify land use, increase deforestation, emissions and environmental degradation, adding to a vicious cycle of climate stress.

The opportunity
Climate Smart Agriculture contributes to securing food production and reducing poverty. It also makes business sense as doing nothing now will significantly increase future adaptation costs. Numerous climate smart practices have been successfully piloted. Now is the time to scale them and bring them within reach of farmers, cooperatives and enterprises that are facing climate change.

Our approach
SNV has over 50 years of experience in developing value chains through market-based services. We support professionalisation of the value chain from producer to consumer and promote smallholder inclusion. By improving value chain governance and supporting conducive policy development, we help create beneficial results for all actors.

In our Climate & Business approach, we identify risks, prioritise interventions, incubate business cases based on climate smart practices and facilitate links to financing to scale those cases. By bringing value chain actors together, sharing insights and supporting advocacy, we accelerate sector-wide adoption and aim for sector transformation. Our interventions address impacts on gender equality and people’s nutritional status.

The SNV Climate & Business approach
Our approach consists of the following steps

**Assessment**

We utilise the latest climate change data and local research in the SNV Climate Risk Assessment Tool to determine risks for selected food crop value chains. For example higher temperatures and extended droughts could lead to reduced maize harvests or dwindling milk supplies. This increases food insecurity and represents significant costs to producers, suppliers, traders and processors. We also determine trade-offs between local increased production and mitigation options, as increased production could lead to deforestation for example.

**Identification and incubation**

With the results of the assessment and utilising the SNV Business Scan, we identify and prioritise interventions that increase climate change mitigation and adaptation. We work with producer cooperatives, input suppliers and processors to develop profitable business cases. For example introducing off-taker agreements between smallholders and processors to promote the use of drought resistant varieties or help to establish agro-forestry.

**Professionalisation**

By professionalising market-based services in the selected value chains, such as farmer field schools and input services, we increase efficiency and productivity while promoting climate smart practices. We also bring producers, suppliers and processors together to help them overcome common barriers, strengthen governance and establish fair pricing systems.

**Scaling and acceleration**

Using the PPPLab Scaling Scan, we analyse barriers and opportunities to grow successful business cases. We work with companies to professionalise their business processes, make them investment-ready and manage matching grant funds to de-risk investments. Working with investment experts, we attract (semi)-commercial financing by comparing returns on current investments in adaptation and mitigation to the costs of in-action.

We document insights from our business cases and share them with relevant actors to accelerate sector wide adoption. By informing investors and trading companies, and supporting inclusive policy development, we initiate sector transformation.

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Our areas of expertise

**Climate Smart Agriculture**

By using a business case approach and bringing them to scale, we increase productivity and growth while improving climate change resilience and mitigation in selected value chains. In Kenya for example we worked with BioFit, an agribusiness that produces animal fodder based on dried water hyacinth, an invasive species in from Lake Victoria, making it a free and abundant resource. In the CSA-East Africa project we will establish climate smart practices on 600,000 hectares of arable land.

**Deforestation free value chains**

SNV has extensive experience in establishing deforestation free value chains in partnership with companies such as L’Oreal (palm oil), Touton (cocoa), and Minh Phu (shrimp). With the SNV Siting Tool, we analyse trade-offs between the targeted crop and production of other commodities as well as landscape protection in selected geographical areas. Based on results, we identify options to increase productivity without causing deforestation and environmental degradation. To guarantee deforestation-free production, we set up a tailored traceability schemes and train surveyors to collect data in the field.

**Productive energy use**

Building on our combined Agriculture and Energy sector knowledge, we increase energy access for farmers and displace fossil fuels with renewable energy throughout the value chain. Examples are the use of solar powered water pumps, biogas for milk chilling and using renewable energy sources for harvesting or processing of agricultural products (e.g. cutting, threshing, husking, drying, heating, boiling, pressing or milling).

**Productive water use**

As weather patterns change and become more unpredictable, it is key to increase water productivity. Using our knowledge on water management, we integrate proven technologies and approaches in climate smart value chains, such as combining solar PV water pumps with drip-irrigation, restoring local ponds, establishing multi-stakeholder water management councils, promoting the re-use of waste water and reducing run-off.

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Our Donors

SNV has a track record in managing complex projects involving governments, producer groups, smallholder farmers, and the private sector.

We manage climate change programmes for the EU, the Netherlands Ministry for Foreign Affairs, the German Ministry for Environment, Nature Conservation and Nuclear Safety (BMUB and IKI), GIZ and Endev, Millennium Challenge Cooperation, the Netherlands Space Office (NSO), SIDA and USAID.

Strengthening our market focus are our commercial business partners that include Rabobank, Mott MacDonald, Minh Phu, LASUCO, L’Oreal, REA Kaltm, Touton, Wilmar and Prosymmac and Unilever.

Our non-commercial partners such as Agriterra, the CGIAR-CCAFS, FAO, ICRAF, IUCN, ILRI and WUR, support us with research, networks and implementation.
Our global team of experts are building climate smart agriculture sectors in countries across Africa, Asia and Latin America. Our current portfolio of Climate & Business related projects is worth over €100 million. Below are some examples.

**Climate Smart Agriculture - East Africa | 2018 - 2022 | multi-country**
**total value: €39.5 million | Netherlands Ministry of Foreign Affairs**
Climate change threatens crop yields in Africa. At the same time, food production will have to increase significantly to feed the growing population. Adoption of climate smart and ecologically sustainable production methods is key to address this dual challenge. The CSA-EA programme in Kenya, Uganda and Tanzania will (1) increase the adoption of climate smart practices and technologies by farmers and agro-enterprises; (2) increase investments and business growth, and (3) create an enabling environment to ensure large-scale roll out of market driven climate smart agriculture. The programme will increase the income for 300,000 smallholder farmers; improve the business performance for 50 agribusiness SMEs and 30 cooperatives, and; establish climate resilient sustainable food production on 600,000 hectares.

**Resilience and Economic Growth in the Sahel-Accelerated Growth (REGIS-AG) 2015 - 2018 | multi-country |**
**total value: €28.6 million, value to SNV: 3.1 million | USAID**
The project increased the resilience in targeted agro-pastoral and marginal agricultural zones of Niger and Burkina Faso, by improving the incomes of smallholder cowpea, small ruminants and poultry farmers. The project identified bottlenecks and opportunities in the consumer market; strengthened value chains relationships; strengthened the quality of inputs and other services; improved the enabling environment, and; accelerated private sector investments. REGIS-AG is part of USAID’s Resilience in the Sahel Enhanced (RISE) initiative. REGIS-AR is focused on supporting producers’ organisations that are beneficiaries of two RISE production-oriented partner projects, REGIS-ER and DFAP. More than 48,000 households benefitted from project activities (up to start 2018).

**Smart Water for Agriculture | 2016-2019 | Kenya**
**€6.0 million | Netherlands Ministry for Foreign Affairs**
This programme is a good example of how SNV uses market-based options to increase resilience of small and medium-sized entrepreneurial farmers. Through platforms that bring together farmers, private sector and government partners, we support innovation, stimulate cooperation, tackle barriers and catalyse upscaling. The tailored smart water solutions that are developed as part of this programme reduce climate risks, save water and energy, enhance off-season production and promote sustainable use of resources. We ensure enhanced service delivery and supply of these solutions by the private sector, and improve (financial) accessibility to and adoption of these solutions by the farmers.
Mobile Data for Moving Herds Management and Better Incomes (MODHEM). 2015 – 2018 | Burkina Faso | total value: €5.3 million, value to SNV €4.1 million with a €876,000 contribution from SDC | NSO

The project worked with the Orange telecommunication company to establish a service that utilises satellite-based geo-data to improve pastoralists’ decision-making power. The service provides up-to-date information on weather patterns, the availability and quality of grazing areas and water sources. Satellite data is supplemented with information about local livestock prices and herd densities on specific points. The project began promoting the information service in Burkina Faso in the final months of 2017 and has reached 33,000 herdsmen and farmers in a few months. The MODHEM project was mirrored by the Satellites, pastoralism and climate change (STAMP) project in Mali, also funded by NSO and worth €2.5 million (value to SNV €1.7 million). The service in Mali received 1,221 calls and 32,820 data requests since it was launched in November 2017.

Mangroves and Markets project (phase I and II) | Vietnam | 2016 - 2020 | € 3.3 million | German Ministry for the Environment

Sweet water shrimp breeding in Vietnam has caused the loss of large swaths of mangrove forests. To increase their production, farmers cut mangrove trees. As the soil is no longer kept in place by the trees, coastal areas are eroded, salt water intrudes and local waters are muddied. In the end, production collapses. The MAM project overcomes conflicting interests and increases incomes. Smallholder shrimp farmers receive training to use more sustainable practices, for example to increase mangrove forest coverage to more than 50% and stop using pesticides. As a result, harvested shrimps are healthier and bigger. These improvements allow farmers to meet the German company Naturland’s organic certification standards for organically bred fish, opening up access to export markets. During the first phase of the project, nearly 800 shrimp farmers obtained Naturland’s organic certification; 80 hectares of mangrove forests have been replanted and 12,600 are protected from deforestation. In the first phase, Minh Phu Company, a leading seafood exporter, committed to buying certified shrimp at a price premium. During the second phase, we scale our approach from one to three provinces, reaching 5,000 farmers and working with at least three processing companies.

Feed the Future: Catalytic Sustainable Agribusiness Investment (CSAI) multi-country | 2016 – 2018 | €1.9 million | USAID

The project promoted investments in climate-smart agri-businesses in Kenya and Ethiopia and was implemented by a consortium led by SNV, Climate Focus and UNIQUE Forestry and land use GmbH. We identified innovative and inclusive climate-smart agri-businesses that have potential to grow and supported them with market analyses, business training and technical assistance. We also strengthened their business processes to make them investment-ready. Finally, these businesses were matched with investors to accelerate the deployment of financing. Overall, the project incubated 31 enterprises (26 in Kenya and 5 in Ethiopia). At the projects’ ending four deals worth €1.4 million had been closed, and deals worth €8.6 million were in the pipeline.

For further information on our approach and projects, please contact: Richard McNally, RMcNally@snv.org