

Sustainable Potato Sector Development

Contributing to food and nutrition security and stimulating employment and entrepreneurship through productive and sustainable climate-smart small-scale agriculture.

Summary of a position paper which has been initiated by the Dutch Potato Organization (NAO), together with various Dutch stakeholders, and with support from the Netherlands Food Partnership (NFP). The position paper with more background information and literature references can be found on the [NFP](#) and [NAO](#) website.

There is a tremendous yield gap in small-scale potato production, but if major increases in yield can be achieved, the crop can make a significant contribution to inclusive food systems in specific agro-ecosystems and geographies, with potato as one of the components of affordable and healthy diets.

In this document, the Dutch potato sector shares its position on how to contribute to the transformation of the potato sector in Low and Middle Income Countries (LMICs). How the sector as a Dutch Diamond can work closely with their international and local counterparts, contributing to sustainable development as well as achieving its aspirations in terms of a business interest.

Potato sector in developing countries and emerging economies

The potato sector continues to operate in its nascent stage at farm level in sub-Saharan Africa, as well as in other countries in the developing world that have a potential for potato production. The potato sector in those geographies is characterized by low-input/low-output production systems resulting in yield gaps compared to what potentially would be achievable.

Potato producers operate within a 'potato ecosystem' that is weak. Important yield-reducing factors are the shortage of quality seed potatoes and the lack of knowledge of pest and disease control, soil fertility and general cultivation practices (e.g. rotation). Other factors are the shortage of labour and cash; restricted access to information, training and inputs; poor post-harvest management; and limited access to, and inefficient functioning of potato markets.

The yield gap is such that a sustainable intensification of production can result in an increase in profits for producers and, simultaneously, a decrease in the price of production per kilo. Despite the growth in demand for potatoes and potato products (chips, fries, starch) in many countries, especially in urban areas, the processing companies are reluctant to invest in and thereby create a more structural potato market because the current production systems are informal and low-input/low-output.



Even though small-scale potato producers often use poor agricultural practices, they value potato as a cash crop. The fresh potato market is usually thriving, and potatoes produced by small-scale farmers reach all corners of a country and abroad. Such potato markets largely operate through local and informal systems of collection and distribution, and employ high numbers of field-level collectors, transporters and traders. The production and marketing systems are not perfect, and far from Dutch standards, but even under these imperfect conditions potato production and trade are functional and profitable. These existing systems form a stable basis to promote the sustainable intensification of production and further market diversification and specialization. These traditional market systems for fresh potatoes constitute in most LMICs more than 90% (and possibly 95) of the total market.

Potato sector development

The potato sector has unique characteristics. As multiplication rate is low, demand for planting material is high. Its seed systems are varied and distinctive, and it has crop production systems in the highland tropics and subtropics, in lowland often irrigated during the cool dry season.

Potato production by small-scale farmers can only become successful and profitable if embedded within a 'holistic potato ecosystem', where small-scale potato production is promoted and accompanied by well-functioning storage, processing, marketing and other components. In this light, various development agencies have moved from value chain development to a sector transformation approach.

Impact on SDGs

In geographies suitable for its cultivation, potato has the potential to make a significant contribution to inclusive food systems. After rice and wheat, potato is the third most important food crop globally, with 380 million of tons produced per year, consumed by 1 billion people. Based on dry weight, the protein content of potato is comparable to maize and rice. However potato also has certain properties of vegetables and is a source of many minerals, vitamins and fibers. Also the production of protein per unit of time and land is higher. When comparing with popular tropical root crops, the protein to carbohydrates ratio for potatoes is much better (1 to 9) than for Yam (1 to 18) and Cassava (1 to 25!).

Increased potato production and consumption will contribute to healthy and affordable diets and as such to SDG 2 'Zero hunger'. With its potential for farmer income generation and local business development, increased potato production and marketing will contribute to SDG 8 'Decent work and economic growth'.

Dutch support to potato sector development in developing countries and emerging economies

The Dutch potato sector is a market leader for many aspects, such as breeding new varieties, scientific knowledge, potato production and processing, supply of seed and ware potatoes, and the provision of equipment and advisory services.

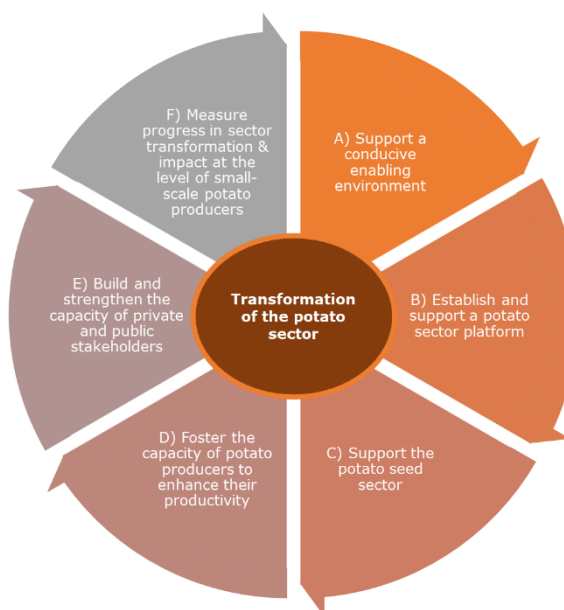
Dutch potato stakeholders are participating in the transformation of the potato sector in various countries. In many cases, interventions are isolated and lack the embedding required for a sector-wide and long-term impact. Current interventions on supporting the development of an enabling environment, as well as the introduction of modern varieties, series of trials, and support for one or several commercial seed producers, are worthwhile. But often the interventions are individual and unconnected. Interventions would become more impactful when embedded in a holistic approach. To avoid mismatches between the Dutch private sector (multinational seed companies) and private sectors in Africa (smallholder for-profit producers) tailored, national, stakeholder-owned, consolidated and agreed (multiple) pathways for sector transformation need to be elaborated. Interventions and investments in the potato sector should build upon the unique and historically critical assets of the Dutch potato sector - its broad cooperation, conducive enabling environment and strong private sector - that are so far not adequately reflected in publicly funded operations in developing countries and emerging economies.

Roadmaps guiding potato sector transformation

A potato sector road map can be considered as a strategic and policy document guiding stakeholders in improving the performance of the sector and serving as a reference for collaboration between the government, stakeholders and development partners.

Whereas the specific topics, strategic innovation pathways and potato sector stakeholders will differ per country, the action areas of a potato sector road map can be organized into six generic interlinked key components:

- A. Support the development of a conducive enabling environment, which includes private-sector development, phytosanitary regulations, variety release, plant variety protection, seed import, agricultural finance and agricultural advisory and extension services.



- B. Establish and support a potato sector platform that will foster linkages between, and coordination among, stakeholders in the potato value chains, while also promoting diversification in potato value chains/products.
- C. Support the potato seed sector, ensuring that farmers gain access to quality seed potatoes of modern varieties; this should acknowledge the relevance and complementarity of different seed systems, while also promoting those seed systems that match the local context and opportunities.
- D. Strengthen the capacity of potato producers through use of quality seed potatoes and advanced cultivation practices, and foster market linkages; a productivity increase at farm level is a requirement for sector transformation.
- E. Build and strengthen the capacity of relevant stakeholders in the private and public sector to support the development of the potato value chains.
- F. Measure the impact on the production, productivity and income of small-scale potato producers on a year-to-year basis, in a larger framework, accompanied by a transformation dashboard. This will ensure that all relevant stakeholders remain dedicated to the goal and objectives. In addition, such measurement services support local policy and development goals.



Establishment of a potato platform

For the Dutch potato sector to meet its ambitions, and increase its impact working in LMICs, the establishment of a potato platform is proposed. The platform will support coalition building in transforming potato sectors to contribute to improved food security, employment and entrepreneurship. The platform is more of an information hub, rather than an organization implementing activities. Implementation of projects and activities in partner countries remains with Diamond partners in the Netherlands as well as host countries. It is important that it has convening power, e.g. the ability to bring the right expertise to the table and consider topics that are addressed by multiple stakeholders. In this way, the platform will develop a strong voice or rather authority in the specific space of transforming the potato sector.

The proposal is to create a space for a potato platform under [SeedNL](#). SeedNL operates as a collaborative arrangement between the Ministry of Foreign Affairs (MoFA), the Ministry of Agriculture, Nature and Food Quality (MoAgri) and the sector organisation Plantum working closely with partners in the seed sector, aiming to increase the availability, access and use of quality seed in developing countries and emerging economies by strengthening the seed sector. The ambitions and objectives of SeedNL are similar like those of the envisaged potato platform. However, potato is only one of the crops addressed in SeedNL, and access to quality seed potato is only one of the components addressed in potato sector transformation, i.e. the focus of the potato platform is on the whole potato sector.

First steps

Five action areas are proposed for the establishment of the potato platform:

1. *Establishment of a working group*
Establishment of a working group under SeedNL, with representation of NAO and other Dutch Diamond stakeholders to prepare the actions 2 to 5.
2. *Development of a success factor framework to assess new initiatives*
 - Translation of the position paper towards ten criteria/success factors for potato projects and programmes in LMICs, serving as a framework to guide the joint development of new initiatives.
 - The position paper, and the success factor framework and scoring cards can be used by the Dutch government and development agencies to assess feasibility and impact of project proposals. They may guide investment policy and instruments related to potato sector transformation in LMICs for increased impact.
3. *Organisation of two stakeholder meetings*
 - Organisation of an online meeting with the private sector to share and discuss the finalized position paper, the action agenda, the hosting of the potato platform under SeedNL, and an inventory of possible follow-up activities.
 - Organisation of a face-to-face platform meeting for all Dutch Diamond potato stakeholders, to share and discuss the position paper, the success factor framework, prioritized actions, communication strategy and possible follow-up activities.
4. *Support and advise to new potato sector transformation programmes*
 - Creation of a meeting space and coordination point for national and international stakeholders, including government and private sector stakeholders, facilitating public-private partnerships and providing support and advise on the formulation and implementation of new potato projects and programmes.
 - The meeting space will be facilitated by the SeedNL secretariat with support from NAO, AgroFoodCluster, MoAgri, MoFA and Embassies, also using sector experts from other organisations (companies, knowledge organizations, NGOs, etc.).
5. *Communication on potato related initiatives*
 - Develop a Dutch potato platform/working group website, potentially hosted by SeedNL, to share information on the Dutch potato cluster, announce new initiatives, communicate project results, etc.
 - Inform potato sector stakeholders and other parties such as Embassies on potato related initiatives.

