

FLYING SWANS – DEVELOPING LOGISTICS SOLUTIONS WHERE THEY MATTER MOST

Dutch agrologistics experts developing value chain solutions for business and impact

The Netherlands has for a long time been Europe's most important hub for perishable trade. In order to secure this position for the future, innovative project development is needed both in the Netherlands and in sourcing areas. To achieve the latter, the Flying Swans Foundation has been formed. This programme looks to develop integral supply chain solutions in developing countries, focused on enabling and improving the export of perishable goods, particularly fresh fruits and vegetables. In doing so, they seek to combine creating opportunities for Dutch businesses and contributing to the Sustainable Development goals.

CROSS-INDUSTRY COALITION WITH AGROLOGISTICS EXPERTS

The Flying Swans Foundation is backed by a consortium of commercial parties that are renowned for their experience in agrologistics and (international) project development. Among the founding members of the Flying Swans Consortium are the Port of Rotterdam and Boskalis. The programme is aligned with the Dutch fresh produce trade sector through an associated partnership with the Fresh Produce Centre, and supported internationally by the Dutch government through their Embassy network.

COMBINING SDG WITH DUTCH BUSINESS INTERESTS

The key goals for FS's project development efforts are to identify and develop projects that can contribute to the Netherlands' goal of SDG achievement in emerging economies. Contribution to the SDGs comes in several forms, as seen below. Equally important for Flying Swans is creating opportunities for the sustainable involvement of Dutch businesses in all aspects of the corridor. Fruit and vegetable logistics projects constitute an ideal opportunity to combine these goals due to the Dutch expertise in agrologistics and the potential for development impact in developing horticulture sectors. As such, Flying Swans will always seek to involve Dutch businesses where possible, and will otherwise make sure to work with other globally recognised, sustainable partners.

FLAGSHIP PROJECTS IN ETHIOPIA AND SOUTH AFRICA

As "flagships" for the programme, FS are currently developing corridor-wide projects in Ethiopia/Djibouti and South Africa. In Ethiopia, a Memorandum of Understanding has been signed with high-level government parties to develop a National Cool Logistics Network. For this purpose, a Cool Logistics Steering Committee has been erected, chaired by the Ethiopian Minister of Transport and the Ambassador of the Netherlands. Also among the participants of the Steering Committee are the Ethiopian Minister of Agriculture and various high-level executives of involved organisation.

In South Africa, FS are working with national railway company Transnet and umbrella organisation Fruit South Africa to maximise the modal shift of export fruit transport from road to rail. This is done through developing strategic investments, among which is Limpopo Consolidation Centre, which FS is developing in the middle of South Africa's main citrus-producing region.

WIDE FUNNEL OF PROJECTS

Besides the above flagship projects, Flying Swans are continuously exploring new opportunities to expand their portfolio of prospective corridor projects. This *funnel* is established through the combination of FS' consortium members' strategic agendas and the Dutch Development cooperation agenda. One of the benefits of the funnel approach is that having a wide range of (prospective) projects reduces the risk from singular corridor countries destabilising or other reasons for delays in individual countries.

DEVELOPING WITH SPONSORS AND PARTNERS

In all projects, Flying Swans play an early stage, facilitating role, overcoming "chicken/egg" problems that logistics developments often face. In further realising projects, FS always look to work with world-class partners at corridor level, such as the Ministry of Transport in Ethiopia, and Transnet in South Africa.



INNOVATION CREATES IMPACT

Flying Swans develop robust investment projects that appeal to private parties, while actively pursuing contribution to SDGs, creating development impact for local populations and the global climate. FSC mainly look to contribute to the following SDGs:



Improving the availability of nutritious fruits and vegetables



Creating jobs and generating forex by bolstering produce export



Reducing CO₂ emissions by introducing sustainable agrologistics solutions

COOL LOGISTICS PARTNERSHIP BETWEEN ETHIOPIA-DJIBOUTI-NETHERLANDS

Unlocking Ethiopia's perishable industry potential by developing a National Cool Logistics Network

The Flying Swans Foundation is a Dutch cross-industry coalition that looks to increase perishable exports in emerging economies through the development of agro-logistical corridor projects. The consortium includes world-class parties from the Dutch Cool Logistics industry. Flying Swans have entered into a multi-annual partnership with the Ethiopian Minister of Transport and other key Ethiopian agrologistics parties to develop a National Cool Logistics Network. The partnership is endorsed at Prime Minister's level.

NATIONAL COOL LOGISTICS NETWORK

Ethiopia's geographic and economic conditions are very suitable for the production and export of fresh fruit and vegetables. However, logistics costs remain a significant bottleneck, and Cool Logistics upgrades augmenting the recently developed rail network are required to make Ethiopian products competitive in global markets. In order to achieve this, Flying Swans and their Ethiopian & Djiboutian partners are developing a National Cool Logistics Network (see artist impression below). The Partnership is initially focusing on the Addis-Djibouti Corridor, as this is where trains are already active. The Cool Logistics Network will be comprised of the following components:

COOL PORT ADDIS

Cool Port Addis is a cold storage facility integrated into a railway terminal near Addis Ababa. At this facility, produce from the hinterland is consolidated into reefer containers to be put on the train to the Port of Djibouti and consumption areas. Cool Port Addis will be positioned strategically close to the Addis Ababa market, and within trucking distance of the Addis Ababa-Arba Minch agricultural corridor. Facilities like Cool Port Addis are already being operated elsewhere, for example in the Port of Rotterdam. Cool Port Addis will serve as a blueprint for similar facilities to be developed at key railway intersections as Ethiopia's rail network expands.

COOL RAIL ETHIOPIA

In order to preserve product quality and shelf life, it is crucial that produce is kept at the correct temperature throughout the supply chain. To achieve this, Flying Swans will develop dedicated railway solutions to carry reefers from and to the Port of Djibouti together with railway partners such as the Ethiopian Railway Corporation and the Ethiopia-Djibouti Railway. The technologies that will be implemented are already successfully being used across the world, including in South African fruit logistics and cross-border connections in Europe.

CROSS DOCK DJIBOUTI

One of the main challenges in African logistics is reducing *empty legs*. Like many emerging economies, Ethiopia has imbalances between imports and exports, resulting in double logistics costs. In order to overcome this, a cross-docking facility will be developed at the port of Djibouti to fill empty reefer containers with import cargo from unrefrigerated containers. This eliminates empty legs on the railway line for both perishable and dry cargo, further suppressing the costs of rail transport.

UNLOCKING FRUIT AND VEGETABLE INDUSTRY

These cool logistics investments are all aimed at unlocking Ethiopia's perishable industry. The Cool Logistics Network will lower logistics costs and allow Ethiopian produce to meet price thresholds in the most important markets. Furthermore, the temperature control technologies employed by the Cool Logistics Network will ensure that Ethiopian produce meet global product quality norms. As a result, Ethiopia will be able to develop a fruit and vegetable industry servicing local, regional and international markets. Flying Swans will support the growth of this export capacity through identifying ideal growth windows, sharing Dutch best practices in production and export (food safety / quality norms, etc), and facilitate matchmaking between producers and importers. These efforts, along with the above Cool Logistics infrastructures, will allow Ethiopia's perishable industry to be unlocked.

Cool Logistics Contributing to SDGs

Developing the National Cool Logistics Network and, thereby spurring the development of a Fruit and Vegetable industry offers significant contributions to the Sustainable Development Goals. The most notable contributions are:



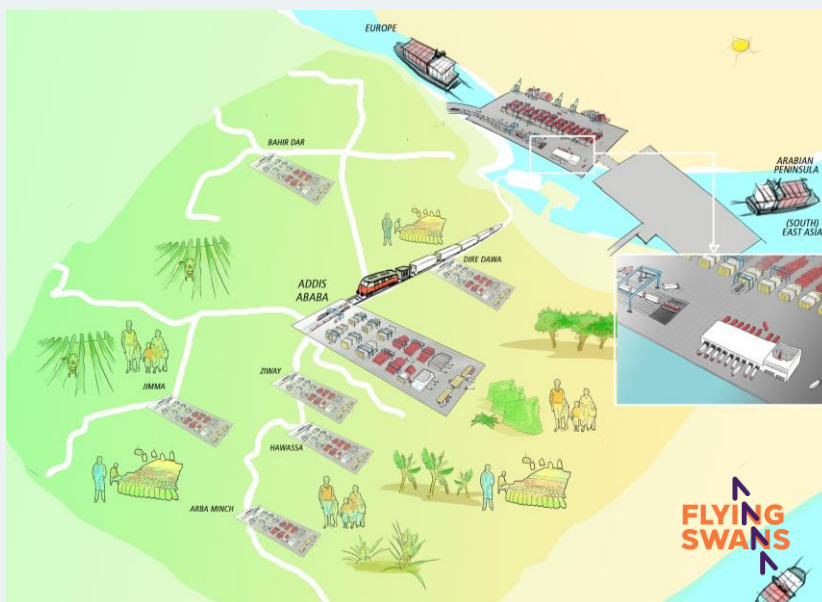
Create between two and four million jobs in the fresh produce industry



Provide the Ethiopian economy with up to 3 billion USD in export earnings



Reduce post-harvest losses and the availability of fruits and vegetables



SOUTH AFRICA – NETHERLANDS PARTNERSHIP TO UPGRADE FRUIT SUPPLY CHAIN

Key partners in fruit trade work together to boost rail transport of fruit in South Africa

For decades, South Africa and the Netherlands have been each other's main partners in the field of fruit trade. Flying Swans, a Dutch consortium of world-class agro-logistics parties have entered into a multi-annual partnership with Transnet SOC and Fruit SA to improve the reefer container connections between production areas and the Dutch market. As the Netherlands' largest sourcing partner for fruit, South Africa is a logical place to develop one of the Consortium's initial projects and bring the Netherlands-SA partnership to the next level.

CRUCIAL FRUIT TRADE PARTNERSHIP

The Netherlands and South Africa has been each other's most significant trading partners in fresh fruit for decades. For a long time, the South Africa – Rotterdam corridor has been one of the most important perishable trade corridors in the world. The Netherlands is the largest importer of South African fruit, with yearly imports of 720,000 tonnes, or 20% of South Africa's yearly exports. Conversely, the Netherlands is reliant on South Africa for 40% of its orange imports and over 30% of its table grape imports. With the increasing usage of the reefer container during the last decade, South Africa is looking to upgrade its fruit supply chain with the support of the Netherlands through the Flying Swans Consortium.

GAUTENG COOL RAIL

A significant part of this supply chain improvement is the possibility for a shift from pallet trucking to railway transport of reefer containers. Rail solutions offer many advantages over trucking alternatives. Over long distances, railway transport offers lower costs per km, offering significant savings across the supply chain. Furthermore, moving the start of refrigeration up the supply chain ensures higher control over product quality and reduces rejects, and switching to rail transport has the potential to reduce CO2 emissions of fruit hinterland transport by up to 90%.

The Flying Swans Foundation has partnered with Transnet and Fruit South Africa to develop a set of strategic investments to maximise railway transport of reefer containers. Technical adjustments must be made to wagons, and generators and

cables must be installed to power the containers carried by the train. These trains are already being deployed in South Africa, with great success. Flying Swans and their partner Transnet are working on expanding the availability of adjusted wagons in order to fully utilise the potential of the reefer supply chain.

LIMPOPO CONSOLIDATION CENTRE(S)

A key part of developing a cross-country reefer network is creating hinterland facilities where fruit can be consolidated in reefer containers and loaded onto trains. Together with global industry leaders, Flying Swans will realise this potential across the country, starting in the Letsitele area with **Limpopo Consolidation Centre**, a cold storage and consolidation facility integrated into the Tzaneen railway terminal. This area is a logical starting point as the prime sourcing area for citrus and avocados. This is a unique location, on the main railway line and in the middle of one of the country's leading fruit production areas. An artist's impression of the facility can be seen below.

RETURN CARGO TO FURTHER INCREASE BENEFITS

All advantages of railway transport are compounded when cargo is transported both ways. To promote this double utilisation of the railway lines, Flying Swans will develop (de-)consolidation facilities in key logistics nodes, such as the port of Cape Town and Johannesburg nodes to handle return cargo from domestic and international markets. Perishable import cargo can then be transported to Gauteng consumption areas using the same reefer rail network used for fruit exports. This will increase the amount of rail transport being used, further pushing down supply chain costs and CO2 emissions.

EMERGING FARMER PARTICIPATION IN GLOBAL MARKETS

Flying Swans' key objective is to unlock business opportunities and robust investment projects, and to combine this with development impact and SDG contribution across the corridor. The South African corridor offers a prime opportunity to realise this ambition. The infrastructures that FS develop will also be accessible for local emerging farmers, giving them access global markets as a consequence. This will also allow fair-trade premiums to be captured.



INNOVATION CREATES IMPACT

The activities of Flying Swans in South Africa are not only aimed at improving opportunities for business, but also at contributing to the UN SDGs. Examples of SDG contribution are:



Reduce CO2 emissions of hinterland fruit transport by over 60%.



Increase economic (export) opportunities of emerging farmers



Connect rural areas, creating economic activity and ensuring jobs