



Collaborating on the sustainable transformation of India's emerging food markets



## **Foreword**

### On behalf of the Embassy of the Kingdom in the Netherlands in India

It is an important part of our job at the representations of the Netherlands Government to find the best match between knowhow and technology from the Netherlands and the needs and societal challenges in India. India has undergone a tremendous transformation over the last decades in terms of food production. In order to continue providing sufficient healthy, safe and nutritious food to the population and more efficient value chains are the need of the hour. The availability of agriculture land and water, and the impact of climate change make for a situation where more has to be produced with less. An area where we see great potential for Indo-Dutch cooperation is without a doubt horticulture. The Netherlands is a global leader in horticulture. In a country the size of Kerala, we manage to produce (and also export) more fresh vegetables, ornamentals, bulbs, and propagation materials than any other country in the world.

In the past decade the embassy has intensified its cooperation on horticulture with the Indian Government. Under the umbrella of the Centre of Excellence program several centers have been developed where Dutch technology, knowledge and starting materials are showcased and farmers are trained. The Dutch horticulture sector is one of the unique selling points of our country. The sector consists of stakeholders that closely work together. These stakeholders include research organizations, growers, breeders, as well as innovative builders of greenhouses and climate systems. For a successful cooperation in horticulture between India and the Netherlands all these stakeholders play a crucial role.

We are proud to welcome a delegation of nine Dutch horticulture companies to India. This cluster of companies (supported by the Dutch Government through the Partners for International Business, PIB-program) embody the strength of the sector, bringing in technology and knowhow across the sector, working together in a public-private partnership. The cluster aims to set-up greenhouse projects in India, bringing in state-of-the-art greenhouses with advanced climate control, irrigation/fertigation, plant breeding and pest management. We invite you to interact with the companies and explore ways to bring fresh, residue free and sustainably produced vegetables to the table in Indian homes, in restaurants, hotels and of course during the festive and wedding seasons. The growing Indian middle class, the strongly developing (e-)retail sector and demand for high-quality fresh produce in the hospitality sector is a great match with the Dutch horticulture cluster. This booklet provides you with information on the different companies, as well as coordinating partners Dutch Greenhouse Delta, InnovationQuarter and Rotterdam Partners.



Michiel van Erkel Agricultural Counsellor at the embassy of The Kingdom of The Netherlands in India

# Co-creating sustainable food markets

Namaste! We are HortiRoad2India, a public-private partnership from the Netherlands. Together with you, we want to collaborate on transforming India's emerging food markets. We are keen to work together with Indian retailers, investors, AgTech firms and greenhouse builders to develop new mid and high-tech greenhouses and upgrade existing greenhouse facilities. Why? So that we can grow safer and healthier fruits and vegetables locally.



#### Increasing demand for quality food

The demand for quality fruit and vegetables is rising in India. Especially India's young population and its rapidly growing middle class is increasingly interested in a different type of food: fresh, sustainable, clean, healthy, high-quality.. yet locally produced. Add to this hotels and supermarkets that want to offer their customers quality products and you see an emerging market of consumers willing to pay premium prices for premium products. A market that is only expected to expand in the future due to population growth and an increasing number of domestic and foreign travellers.

#### About HortiRoad2India

By working together and adapting innovative Dutch solutions to local circumstances, Dutch consortium HortiRoad2India can support India's horticulture sector to produce better quality products. And in their turn, food producers can provide hotels, restaurants and supermarkets with products that not only last longer, but are also fresher, healthier, cleaner and produced using less resources. By pooling resources, we ensure India can increase its production capacity sustainably.

We can, for example, use our innovative technology to equip your greenhouses with irrigation systems, lighting and climate computers or link existing agri software to new hardware, such as sensors. This not only makes your greenhouses smarter, but also more sustainable. Using IoT, AI and other new technologies in horticulture allows you to decrease your emissions, water usage and use of pesticides. The result? Safer, healthier food with a longer shelf-life that can be sold for premium prices.

#### Towards a long-term partnership

HortiRoad2India is keen to create long-term connections in India. The majority of our members already have experience working in India with local partners, and some even have opened local offices or facilities. Together with local partners, like the government, we can take our responsibility for a more sustainable future for India, by providing consumers with sustainably grown, healthy, clean and pesticide-free food.



## **SDGs**

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. HortiRoad2India contributes to the achievement of the following sustainable development goals:



#### SDG 02 | Zero hunger:

The cluster provides integrated solutions for sustainable agriculture that help India to achieve food security.



#### SDG 03 | Good health and well-being:

The aim of the cluster is to increase the availability of fresh, healthy and locally produced food.



#### SDG 08 | Decent work and economic growth:

The cluster combines global expertise with local experience to provide India's consumers with healthy, clean, and sustainable food and at the same time generate jobs and income for all involved.



#### SDG 09 | Industry, innovation and infrastructure:

The cluster is comprised of pioneers in developing innovative solutions in the field of water management, climate control, labour & energy management to ensure that crops can be grown year-round in a sustainable way.



#### SDG 11 | Sustainable cities and communities:

The cluster stimulates local and sustainable production through Dutch technology and knowledge transfer, such as reducing CO2 emissions and water.



#### SDG 12 | Responsible consumption and production:

The current Dutch horticultural technology can serve as an example for the transition towards climate-neutral production systems and already has many circular features.





## rotterdam partners



## **Coordinators**

Dutch Greenhouse Delta is a foundation that promote the Dutch horticultural sector worldwide. Together with Dutch state-of-the-art partners in horticulture, we bring an integrated Fork2Farm solution that offers a complete ecosystem consisting of science, enterprise, education, and the government.

InnovationQuarter is the regional economic development agency for the Province of Zuid-Holland, also known as the greater Rotterdam – The Hague area. Their mission is to strengthen the regional economic structure by stimulating the innovation potential of this unique delta region.

Rotterdam Partners is creating sustainable growth of the Rotterdam economy and aims to promote the Rotterdam region at home and abroad. We open the door of Rotterdam for future international companies and help companies from the region to expand their business abroad.

#### Embassy of the Kingdom of the Netherlands in New Delhi, India

The Embassy in India represents The Kingdom of the Netherlands and promotes its interests in India. We support companies, citizens, knowledge institutions, development- and civil society organisations. We promote business partnerships between both countries and the use of Dutch expertise and technology in the food security, water management and sustainability in India.

## **Partners**







Cultilene delivers innovative solutions that enable you to optimise your cultivation processes while saving on fertilisers, water, energy and waste. Together with our parent company Saint-Gobain, we transform innovations, solutions and technologies from other sectors into sustainable horticultural applications. In doing so, we work with you to cultivate the horticulture of tomorrow. Our substrate products are therefore the perfect start for uniform crop development and form the foundation for controlled crop management. But not only that: they also help you reduce your water and fertiliser use, cut down on waste and produce more sustainably.



De Ruiter, part of the Bayer Crop Science division, specialises in the breeding, production and sale of hybrid seeds for greenhouse production. Together with its growers, the company is dedicated to bringing high-quality, nutritious produce to ensure a balanced plate for its global community.



Grodan is the global leader in supplying soilless rootzone management solutions for Controlled Environment Agriculture. These solutions are applied to the cultivation of vegetables, medicinal crops and flowers. Grodan was founded in 1969 and is active in more than seventy countries worldwide. The head office is located in Roermond, the Netherlands. For more information, please visit www.grodan.com.



Together with global partners, Hoogendoorn delivers sustainable automation solutions that seamlessly coordinate all processes and systems in your horticultural organisation. The modular software ensures that the available resources such as natural gas, fertilisers and water are used as efficiently as possible. With this, Hoogendoorn helps its clients to minimise (energy) costs and CO2 emissions and to maximise crop profitability.



At KUBO we can now look back at almost 80 years in horticulture. A stable family company with the third generation now at the helm. KUBO manages complete greenhouse projects. Contracting, engineering, manufacturing, construction and service. All under our own management. This enables us to monitor the entire process, deliver on time and be certain that we are using the latest technologies and concepts.









Meteor Systems is an innovative company in the production of complete growing systems for the (inter)national horticultural industry (indoor, outdoor & semi outdoor). Among other steel gutters, (movable) growing systems, drip irrigation, suspension and support systems, wire products, fastening materials, hydroponic floaters, vertical farming grow racks and fruit covers.

Priva is a high-tech company that develops hardware, software and services in the field of climate control, energy saving and optimal reuse of water. Priva does that for horticulture, indoor and city farming, and utility buildings such as offices, retail, hotels and hospitals. With 450 colleagues, 15 local offices in 12 countries and over 400 international installation partners, we deliver our sustainable solutions and services in more than 100 countries.

Van der Hoeven specialises in designing and constructing customised horticultural projects around the world. The company assists investors from the feasibility study phase to construction and crop consultancy, thereby helping stakeholders achieve maximum returns on their investments. By using the latest technologies, Van der Hoeven offers climate-specific solutions, allowing crops to be grown efficiently in any part of the world.

Westland, leading the way in sustainable horticulture and local food production. As Westland, the capitol of the Greenport in West-Holland, we spread the message of aiming for local sustainable food production all around the world. In our municipal role, we emphasize our joint contribution to several of the Sustainable Development Goals of the United Nations, such as 'Zero Hunger', 'Sustainable Cities', 'Good Health and Well-being' and 'Responsible Consumption and Production'.

# Let's partner up!

By working together, we can sustainably transform India's emerging food markets. So, let's exchange information, knowledge, and technology and inspire each other and the rest of the world, how together we can farm the future!



Cluster Coordinator

Desh Ramnath

Desh.ramnath@dutchgreenhousedelta.com



Cluster Coordinator

Tiffany Meijer

tiffany.meijer@innovationquarter.nl



