



Advancing Sustainable Solutions





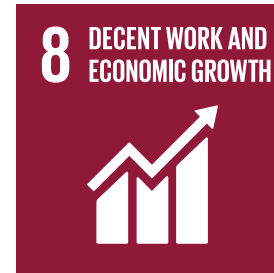
Advancing Sustainable Solutions

Ratified by the United Nations General Assembly in September 2015, the UN Sustainable Development Goals (SDGs) represent a comprehensive set of social and environmental benchmarks that demand the action of governments, businesses and communities to achieve inclusive global prosperity by 2030. In pursuing our purpose, we have identified six out of the 17 goals on which we can have the greatest impact, as noted below.

Feeding the world sustainably



Advancing responsible business



Making health and well-being more accessible



Making cities more livable, lovable and resilient



Better managing water systems



Empowering communities with data



Find out more: www.un.org/sustainabledevelopment/sustainable-development-goals





Feeding the World Sustainably



With estimates of reaching a population of 9.7 billion people by 2050, according to projections of the United Nations, ensuring accessible, affordable and nourishing food for all is one of the world's most pressing challenges.

At Orbia, we are playing a pivotal role in the global journey toward food security and agricultural prosperity. Through providing precision agriculture products and services, we are privileged to reach millions of the world's farmers each day, helping them grow more to sustain themselves and their communities with less burden on the environment and resources.





At Netafim, we have a long legacy of helping feed the world by helping farmers grow more with less.

As we continue to apply new technologies for drip systems and as our cumulative experience of the positive impacts of precision irrigation grows, we are finding that we can scale our contributions to global food security and resource conservation through partnerships within Orbia and public-private external collaborative programs that transform lives on our way to a sustainable future.”

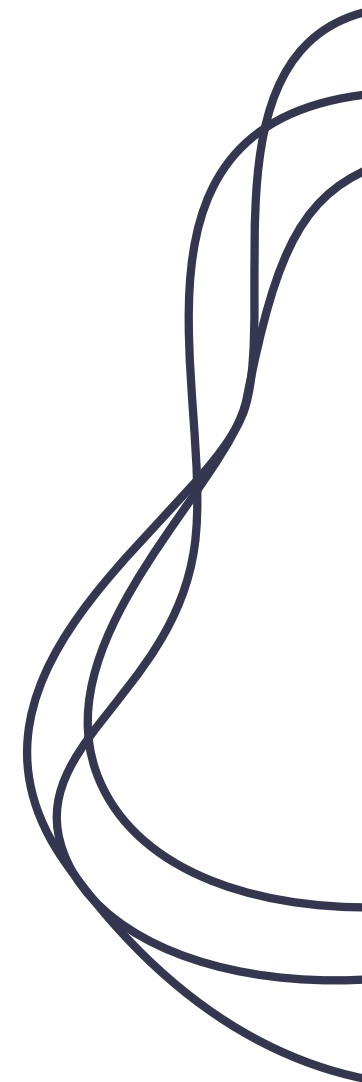
Gaby Miodownik
President, Precision Agriculture

Transforming Agricultural Livelihoods in India

Agriculture around the world is dominated by smallholder farmers, and nowhere is this truer than in India. Despite smallholder farmers' vast contributions to the Indian food supply chain, many struggle to gain access to markets and resources that will ensure their survival. Netafim has been working to enhance agricultural efficiency, quality and sustenance through drip irrigation, and has established deep roots in India's smallholder farming communities through pioneering Community Irrigation (CI) initiatives. CI projects use a single water source (river, reservoir or canal) to support the needs of multiple farmers on the backs of irrigation systems and associated support.

Netafim's first fully automated Community Irrigation project

- **Sponsored by:** KBJNL (Krishna Bhagya Jal Nigam Limited)
- **Where:** Ramthal region, Karnataka, southwestern India
- **When:** 2014-2017
- **Who:** 7,000 farmers
- **What:** 11,700 hectares in total in 22 villages with 77,000 kilometers of irrigation driplines, supplying water needs to all farms in the project.
- **What happened:**
 - **25-30%** yield increase reported by farmers in the project area using drip irrigation
 - **>50%** increase in water efficiency
 - **13** commercial agreements in place between farmers and food processing companies for supply of agricultural produce
 - **Increase** in women's participation in farming due to less labor-intensive methods
 - **What's next:** Ongoing support and maintenance, improved quality of life and scaled-up food security.

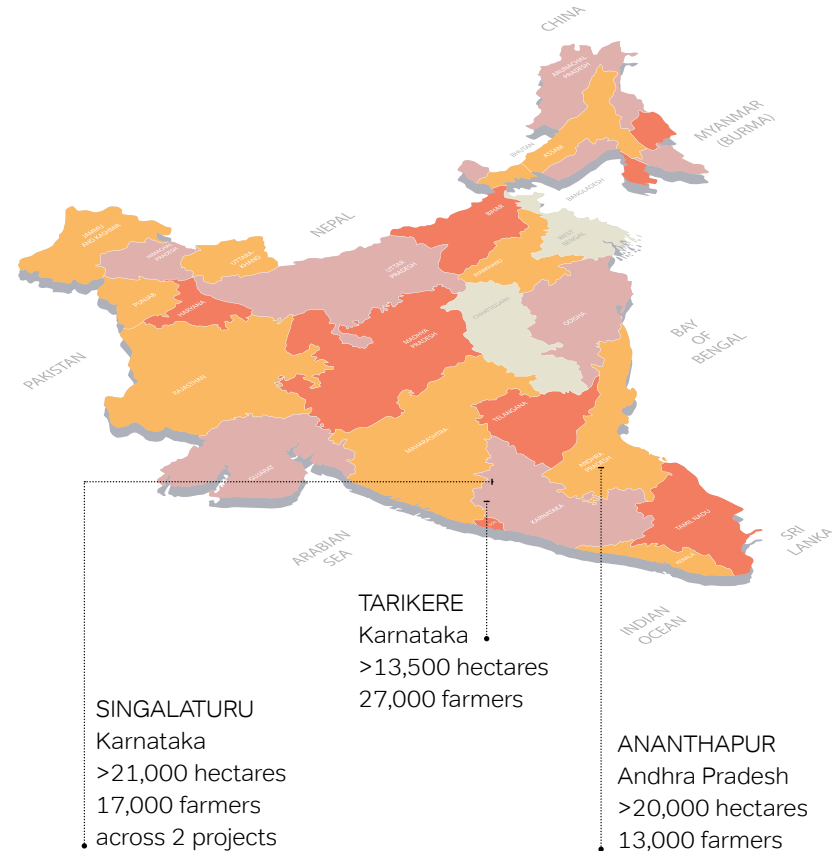




In 2019, Netafim advanced four additional large community irrigation projects in India. These four projects connect a total of 57,000 farmers in over 100 villages to end-to-end irrigation solutions across 55,000 hectares of farmland.

While each of the four projects has its own unique features, the overarching scope remains similar: providing automated drip irrigation systems through design, construction, operation and ongoing maintenance of these community irrigation installations over five-year periods.

Netafim Community Irrigation Projects in India 2018-2023



The community irrigation model enables us, together with local governments, to impact the livelihoods of thousands of farmers with our advanced precision irrigation and digital farming solutions. We have always known that collaboration can yield incredible results; our community irrigation model is now a proven success and we look forward to transforming many more farming communities across India in the future, starting with four projects in Karnataka and Andhra Pradesh to be completed in 2020.”

Randhir Chauhan
President, Orbia India



Streamlining Efficiency with PepsiCo in Mexico



In Mexico, PepsiCo's local team had an ambitious goal: to increase production of potatoes to meet the yearly product demand of more than 300,000 tons in a sustainable manner. With Netafim as a partner to support all installations at the PepsiCo Sabritas® Agricultural Development Center (CEDAS) in Toluca, Mexico, PepsiCo was able to harness Netafim's irrigation and cultivation technologies to **improve yields by approximately 40% and use almost 90% less water** through an advanced aeroponic and hydroponic growing method.

Supporting Farmers and Food Security

Deploying new technology, seeding crop trials and supporting positive impacts in farming communities around the world, Netafim introduced:

- **Advanced technology that saves energy in digital farming:** To help seamlessly power the automated irrigation, nutrigation and crop protection services provided through NetBeat™, Netafim's smart irrigation platform, Netafim trialed Sol Chip's maintenance-free Everlasting Solar Battery in 2019 to run NetBeat digital farming systems for 10 years without downtime or replacement. In 2020 and beyond, Sol Chip's component will be integrated into all NetBeat based digital farming systems.
- **First drip-irrigated rice crops cultivated across 1,000 hectares:** After a decade of field trials, the first commercial-scale drip irrigation systems for rice fields were installed in 2019 to support sustainable and safe cultivation across Turkey and India. Trial data over several years demonstrated that Netafim's drip irrigation systems resulted in 60% water savings, 30% fertilizer reduction, methane emissions decreases to nearly zero and 90% reduction of arsenic uptake into rice crops. With positive outcomes expected, the applications for rice farmers worldwide are promising.
- **An officially recognized water conservation system:** In 2019, the U.S. Department of Agriculture recognized Netafim's effluent subsurface drip irrigation (SDI-E) system for its conservation efficacy. Using advanced filtration and proprietary, patent-pending technology, SDI-E blends dairy wastewater with fresh water at an optimal ratio, reducing the freshwater volume required for growing feed crops. SDI-E was proven over three years of field trials with California dairy farmers, whose 1.7 million alfalfa-fed cows provide 20% of the U.S. milk supply.
- **A circularized drip irrigation model:** In Mexico, we are innovating a new business model that takes us closer to circular economy, providing precision irrigation as a full service. Working to help farmers reach optimum results and minimal upfront investment, access to drip irrigation is now easier than ever. In 2019, Netafim piloted this service on 147 hectares across two farms, cultivating corn and alfalfa. In both cases, yields increased by 20-40%, water consumption reduced by an average of 20%, and farmer income increased by more than 40%.

 **Netafim was the only company that could provide us the innovative irrigation solution for rice that we needed. Drip irrigation makes weed control easier, boosts yield and leads to higher quality crops as well as optimizing our water savings right from the start."**

Bülent Can

Rice Farmer in Beliksir, Gönen region, Turkey