WWF and IKEA are working together on forests, cotton, water and climate to protect landscapes and enhance biodiversity.



CASE STUDY

COLLECTIVE ACTION ON IRRIGATION

WWF and IKEA are part of a multistakeholder effort to transform agricultural water use in Turkey

Water is an increasingly scarce resource. According to the UN, 3.2 billion people already live in agricultural areas facing water shortages, and the situation is only going to become more severe as climate change makes weather patterns increasingly erratic. At the same time, freshwater biodiversity is in catastrophic decline, with species populations falling by 84% since 1970, according to WWF's Living Planet Report.

Water stress also poses a material risk to business. IKEA is among a number of companies using WWF's Water Risk Filter to assess risks associated with its supply chains and identify areas for action. Since 2018, WWF and IKEA have been working together to improve water efficiency and eliminate water pollution throughout the IKEA supply chain.

But while taking responsibility for the company's own water impact is an essential first step, water is a shared resource that needs to be managed collectively at the level of the river basin. This is something WWF and IKEA are tackling through a water stewardship collective action project in the Büyük Menderes river basin in Turkey.

"The Büyük Menderes basin is a region of very high ecological and economic importance," explains Saba Dar, who coordinates WWF's river basin collective action projects. "It includes 10 legally protected areas for nature conservation and three wetlands that are candidate sites for protection under the Ramsar Convention, including areas for breeding and wintering waterbirds. It's home to threatened species including the European eel and the Dalmatian pelican.



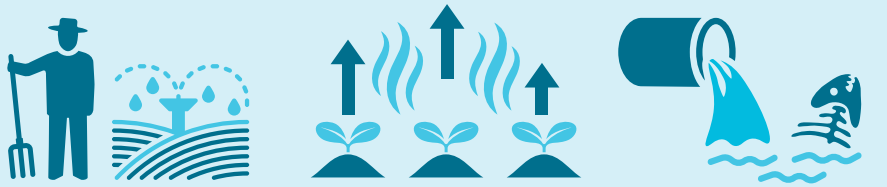
IKEA began supporting WWF's collective action project in Büyük Menderes four years ago alongside other international companies that source textiles from the basin. The commitment ranges from supporting textile factories to invest in cleaner production techniques, to restoring wetlands, improving soil and water management in cotton production, and influencing policy.

"It's also an economically important region, being a hub of textile production and cotton production. But the quantity and quality of water available has been declining rapidly over the last 20 years."

"Overconsumption of resources and climate change has put too much stress on our river basins, especially on the Mediterranean coast," adds Eren Atak, who leads WWF-Turkey's water stewardship work. "Some areas are already experiencing drought, and we're seeing impacts from farmland collapsing due to groundwater depletion to flamingo colonies dying as salt lakes dry out. We don't have the resources to work in every basin, but we can establish a model that can be replicated."

TRANSFORMING IRRIGATION

Traditional irrigation



In traditional flood irrigation, water is diverted to flow across the whole field.

It's a cheap, low-tech way to water crops, but inefficient as much of the water is lost to evaporation.

It also leads to pollution as agrochemicals are washed off the land and into watercourses.

Modern irrigation



Modern drip irrigation, which delivers water directly to the roots, is far more efficient.

Solar power for the pump and filtration system are on public land so farmers don't lose any productive area.

Project aims



Irrigation water use reduced by 50%

Input costs reduced by 20%

Yields increased by 10kg per hectare

"IKEA is committed to improving water quality and availability of water for people and planet by 2030. We take a full value chain perspective by leading the agenda where we have influence and taking a collaborative approach where our most water-intense raw materials and manufacturing are located. "

Neha Madan Asthana, Sustainability Development Leader, IKEA

SUSTAINABLE COTTON FARMING

One area where the partnership is enabling collective action is in modernizing irrigation systems in Söke, one of Turkey's most important cotton-growing areas. Traditionally, cotton farmers in the region have used flood irrigation, where water is diverted to flow across the whole field. It's a cheap, low-tech way to water crops, but highly inefficient as much of the water is lost to evaporation and excessive amounts of water can reduce the cotton yield. It also leads to pollution as agrochemicals are washed off the land and into watercourses: in Söke this has a direct impact on two key biodiversity areas, Bafa Lake and the Büyük Menderes Delta.

Modern drip irrigation, which delivers water directly to the roots of the plant, is a far more efficient system. By saving water and nutrients, it benefits farmers and freshwater ecosystems alike. But although the government offers a grant to cover 50% of the cost of installing modern irrigation, few farmers are taking up the offer.

"Water is cheap and farmers pay for the area they irrigate rather than the amount of water they use, so they have little incentive to invest in modern irrigation," says Eren. "Although government policy offers 50% grant support, the burden is on the individual farmer to find a supplier for the equipment and to make the upfront investment. Farmers are focused on the next harvest, and think water supply challenges are the responsibility of irrigation unions and the government."

It's a barrier that can only be overcome through collaboration. So in 2019, WWF convened a meeting of around 30 stakeholders. These included public authorities responsible for agriculture and irrigation, the local municipality, farmer groups, the local chamber of agriculture, and private sector businesses including IKEA, cotton processing companies and irrigation system suppliers.

This led to the formation of the Söke Cotton Water Stewardship Steering Committee, a multistakeholder platform with the goal of developing a modern irrigation model that can provide an exemplar for other cotton-growing regions. The committee has launched a pilot project involving 17 farmers on 95 hectares near the Büyük Menderes Delta national park.

"Because it's a collective project, there are economies of scale and opportunities to introduce innovations that individual farmers wouldn't be able to pay for on their own," explains Eren. That includes solar power for the pump and a filtration system that the local irrigation union will install on public land, meaning farmers don't lose any productive area.

The project is expected to reduce irrigation water use by 50%, reduce input costs by 20% and increase yields by 10kg per hectare compared to current irrigation methods. "The pilot will monitor and evaluate the yield increase, changes in water consumption and input cost decrease from modern irrigation," says Eren. "This full set of information doesn't exist in cotton farming yet in Turkey.



LOOKING AHEAD

If the project can demonstrate successful results, it could open the door to both public and private funding to transform irrigation in Turkey.

“We’re trying to make the case for policy changes that will support collective action,” says Eren. “We’d like to see more grant support, and more subsidies directed toward collective transformation rather than individual farmers. This doesn’t mean the government needs to develop new programmes – slight changes in legislation would pave way to support collective transformation.

“But we also need to make the business case so we can attract other investors like the private sector. If we can demonstrate an economically viable case, leveraging public and private finance and bringing together farmers and other stakeholders, it can be replicated in other parts of the country. This could be a crucial step in reducing the risks related to agricultural water use.”


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COLLECTIVE ACTION: LESSONS LEARNT

Success factors:

Common goals: Setting up the steering committee was a smooth process because all stakeholders shared the same objectives, says Eren: “Different actors have different interests – farmers want to grow a successful crop; irrigation unions, the Ministry of Agriculture and the local water board are worried about water supplies; technology providers want to sell their products. But everyone has the same aim of improving water use in irrigation.”

A neutral convenor: WWF was able to act as a convenor of the multistakeholder committee because it’s seen as a neutral party without a vested interest.

Global commitment: IKEA has been involved in the Söke Cotton Water Stewardship Steering Committee since the first meeting in 2019. “Having a global brand participating and showing commitment to these issues makes a difference to local stakeholders,” says Eren.

Ongoing challenges:

Upscaling: The pilot project covers 95 hectares out of a total agricultural area of more than 366,000 hectares in Aydin province alone: even with a successful business case, transforming irrigation on this scale will be a massive undertaking.

WWF

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