Vietnam to produce more coffee with less water

Towards a reduction of the blue water footprint in coffee production

Country
Vietnam

Partners
Nestlé, University of Neuchâtel - Centre of Hydrogeology and Geothermics, Hanoi University of Science, EDE consulting

Background information
Coffee is one of the primary agricultural products traded in the world and is a commodity of outstanding significance for the producing regions. Coffee production in Vietnam has a significant impact on water resources.

Project target
- Improved water resources management
- A weather early warning system supports optimization of farm management
- Large-scale awareness raising and training of farmers on rational water use for coffee production
- Policy advocacy on rational water use.

Target groups
50,000 smallholder coffee growers, extension services, policy-makers and coffee manufacturers.

Costs
Total: CHF 1,688,335
SDC: CHF 844,167

Duration
06.2014 – 12.2017

Contact
Global Programme Water
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The project aims to ensure equitable and sufficient water availability for all water users in the Central Highlands (Vietnam) and obtain pivotal water savings through improved irrigation management in the coffee sector reaching out to a critical mass of farmers, and hence improving people's livelihoods in socio-economic terms and protecting the environment.

Coffee production in Vietnam has major impacts on water demand

Vietnam is the second largest coffee producer in the world and leading Robusta coffee exporter. Coffee is the most important export product in value for the country and supporting the rural livelihoods of over 2 million people, mainly in the Central Highlands.
In order to make coffee farming economically viable, water for irrigation is a pre-condition to achieve yields that average 2.3 Mt per ha. Although water is scare during the dry season, smallholder coffee farmers tend to irrigate excessively. Over-extraction can be explained by the fact that water is an open access resource, has no price and licensing regulations about the maximum number of wells and their maximum extraction depth are not enforced. As a consequence, people living in the Central Highlands of Vietnam are increasingly facing the challenges of drought and extreme water shortage. These threaten agricultural production, which not only affects community life, but also weakens the local economy.
Aggravating this situation is the absence of systematic monitoring of water resources, which makes it impossible to provide information on the condition of water resources and recommend a course of action on water resources management for the region.

An innovative public-private development partnership

In 2011, Nestlé, the main off-taker of Robusta coffee in Vietnam and SDC engaged in a public private partnership program to study the water footprint of Robusta coffee as a means to raise awareness for farmers about the value of water and to jointly develop steps to rationalize and optimize water use. The project's research findings outlined in the policy brief entitled: "Vietnam to produce more coffee with less water", were presented in October 2013 at a stakeholder workshop. The Vietnamese Ministry of Agriculture and Rural Development and the National Agricultural Extension Centre expressed full recognition of the study findings and called for immediate action to formalize government approval and broad introduction of the research findings to the grassroots level through mass media and farmer trainings. In response, SDC and Nestlé confirmed continued support.

Expected results

Water availability, supply and demand have been inventoried and the impact of coffee production on water resources assessed in Dak Lak province; water scarce hotspots have been identified and Water Action Plans have been formulated, implemented and monitored for 2 pilot micro-catchments by local institutions in partnership with and through capacity building support from selected international institutions.
A weather early warning system has been designed, tested and implemented for one Central Highland's province in order to support optimization of farm management.
50,000 small-scale and poorer farmers deprived of information, and often part of the ethnic minorities, in the 5 main coffee producing provinces produce coffee in an economically and particularly water efficient manner through access to improved support with regard to water management and state of the art Good Agricultural Practices for Robusta production which leads to important water savings in agriculture.
Through policy advocacy, the project is a concrete model featuring the subject of water efficiency in an international policy debate and to sensitize relevant policy makers through its results.