Coffee in Dak Lak, Vietnam
From growth to sustainability

CONTEXT

In the wake of land and market reforms and a program to spur migration from Vietnam’s central coast and northern mountains to its Central Highlands region, the country experienced an unprecedented expansion—by some 400,000 hectares—in coffee plantings during the 1990s. Subsequent additional plantings plus yield improvements have led Vietnam to become the world’s largest producer and exporter of Robusta coffee. Vietnam now accounts for 60 percent of global Robusta trade, features the highest yields in the world and the lowest unit costs. The industry provides a livelihood for about half a million smallholder households and a supplemental income for half a million seasonal workers. Production is concentrated in a few provinces with Dak Lak accounting for nearly one-third of the total.

ENVIRONMENTAL RISKS AND IMPACTS

The rapid expansion of the coffee sector in the 1990s and early 2000s was associated with high levels of deforestation, biodiversity loss, and land degradation. More than 20 percent of the coffee planted in Dak Lak has been in areas considered unsuitable for coffee due to soil, topography, water availability or other factors. Production has tended to feature heavy, if not excessive, rates of fertilizer use and heavy water extraction, including from groundwater sources, to ensure high yields. The result has been soil acidification and periodic water shortages in the growing region. A lack of hydrological survey data inhibits a good understanding of the problem. Thus far, regulatory measures, including the licensing of groundwater extraction, and the fining for excessive water use, have been little applied.

INCENTIVES FOR MITIGATION

Coffee accounts for nearly half of the GDP of Dak Lak Province, and the sustainability of livelihoods associated with coffee are critical to the economy of this and several neighboring provinces. Yet, there is emerging competition between coffee, other tree crops, and various non-agricultural sectors (i.e. hydropower; ecotourism, urban residential use) for land and water. Patterns of climatic change have become evident and are likely to pose greater risks in the future. Many farmers are currently embarking on a long-term investment via the uprooting and replanting of coffee with the help of government initiatives. Significant investment by the public and private sector is seeking to use a spatially coordinated approach to increase the long-term viability of the sector.

POLICY ACTION

The coffee sector in Dak Lak and the Central Highlands has mostly been exposed to policies aiming to increase production. However, there is a trend toward incremental environmentalism as the consequences of uncontrolled growth become more evident. Recent pilots and applied research have demonstrated the technical feasibility and both the economic and environmental benefits of certain changes in land use, and agronomic and water use practices. The dissemination of this information, and associated farmer training, has contributed to a recent increase in the share of production (to more than 20 percent) taking place under certified or certifiable sustainable practices. Complementary efforts, including effective regulatory measures, are needed, however, as the primary international standard being used does not have stringent requirements for either water resource management or biodiversity protection.

Coordination has been a major barrier to effective mitigation of the environmental impacts of coffee produc-
The 2013 creation of a Coffee Coordination Board offers the potential for improved coordination of sustainability initiatives and improved sector governance overall. The Board is a public–private partnership whose mandate includes advising the Minister of Agriculture and Rural Development on matters of strategy, policy, planning, and programming implementation. The CCB has made environmental sustainability one of the four pillars of its founding strategy, alongside quality, yield, and farmer income. Created by governmental decision, and vested with public and private sector as well as foreign and domestic legitimacy, the CCB faces an unprecedented opportunity to take sustainable practices to scale, drawing on the knowledge and experience acquired to date. Initial efforts have included measures to improve the coordination and quality of extension services, with greater emphasis to be placed on promoting more ecological practices, and to promote farm-level diversification.

The current need by many farmers to access long-term loans in order to finance coffee replanting offers an opportunity to leverage such financing by requiring borrowers to undertake a range of measures (i.e. soil testing; planting of shade trees; applying water saving technologies) to reduce their environmental footprint. More efficient water and fertilizer use will bring considerable cost savings to farmers. Combining concessional financing with intensive farmer training and technology demonstrations may help turn the tide toward more sustainable practices.

However, the sustainability of coffee production cannot only be pursued farm by farm. In Dak Lak, coffee accounts for 70% of the water used. The relationship between coffee production and other land uses and livelihood strategies in local communities and watersheds needs to be better understood and the available resources better managed by different stakeholders. Efforts to pilot some spatial approaches to natural resources management are just taking shape.

LESSONS LEARNED

One of the key insights from this case has been the difficulty of resolving environmental issues where production is dispersed across a large number of smallholders and a wide geographical area. Where commodity production is consolidated, regulatory measures or promoting voluntary standards may be appropriate. Such approaches have not been successful in Dak Lak. Policy makers have therefore had to apply themselves in a variety of roles, including awareness-raising, training, concessional financing and the coordinating functions described above. These roles can serve to enable, fund and catalyze environmental mitigation in the coffee sector.