Food security with cocoa agroforestry
Restoring Ghana’s degraded forests and supporting livelihoods

Ghana
Size: 238,535 km²
Population: 25 million
Capital: Accra

Supplying the world with cocoa at a cost
Nearly eleven of the fifteen million people employed in the global cocoa industry are located in West Africa, home to 70% of the world’s cocoa supply.

In Ghana, the cocoa sector employs over 800,000 smallholder farming families, contributing around US$ 2 billion in foreign exchange – 85% of foreign export earnings. However, cocoa plantations are replacing natural forest and contributing to the country’s high rate of deforestation. Between 2012 and 2013 alone, cocoa cultivation increased by 50,000 hectares. The yields, however, are highly sensitive to rainfall, temperature and sunlight, and the excessive clearing of shade trees on farms is threatening the moist micro-environment in which cocoa thrives.

Cocoa agroforestry systems (CAS)
CAS are sustainable farming practices that combine forestry and agriculture. Intercropping cocoa, a traditionally shade loving plant, with high value tree species and other crops, offers farmers a range of agronomic, economic, cultural and ecological benefits.

Land degradation and unproductive yields in the cocoa farming system is exacerbating Ghana’s food security, declining per capita farm income and soil degradation. CAS can help millions of people escape poverty and prevent environmental degradation — making it one of the most promising strategies to increase food production without additional deforestation. Despite the benefits, CAS adoption among smallholder farmers has been slow and attracted little attention from planners and development professionals.

To understand the bottlenecks, a recent study assessed the level of CAS awareness, identified influencing factors in decision making, and obtained cocoa yield trends and agrochemical usage under different shade levels.

The potential of CAS
Medium shade CAS requires 10-15 trees per hectare

If cocoa farms continue their annual growth of 50,000 hectares, this could result in the planting (or retention) of 500,000 to 750,000 trees every year.

At this rate, Ghana’s total land area under cocoa production will reach 2.9 million hectares by 2030.

With strong policies supporting medium shade CAS, cocoa farms could restore 2,900,000 hectares of degraded land with approximately 29,000,000 – 43,500,000 trees by 2030.

Household income will rise, while malnutrition will decline — enhancing food security in the region.
These positive attitudes can be put into practice by encouraging farmers and connecting them with information and support through networks and knowledge sharing channels such as mass media, databases and cooperatives.

The majority of respondents agree that CAS promotes sustainable yields, enhances soil fertility (thus decreasing the need for fertilisers), and increases income.

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Nutritional support

98% of study participants indicated that the diverse products from CAS provide their families with a direct source of mineral nutrients. These food products alleviate common household deficiencies and prevent malnutrition, commonly suffered by children.

Results from respondents indicate that access to services, memberships to farmers’ organisations and previous exposure to CAS are factors likely to affect their responses.

Forest Landscape Restoration (FLR) and Food Security

FLR has the potential to re-establish ecological integrity and enhance human well-being in deforested or degraded forest landscapes. It involves people coming together to restore land through seven place-based interventions.

Food security exists when all people have ongoing physical, social and economic access to sufficient, safe and nutritious food. These seven FLR interventions contribute to the security of food resources by increasing agricultural productivity and diversification while reducing resource depletion and vulnerability.

This factsheet illustrates the benefits of agroforestry:

This factsheet is excerpted from:


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