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TEEBAgriFood framework: Case of cocoa and coffee agroforestry value chains in Ghana and Ethiopia

Priscilla Wainaina (World Agroforestry)

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Lessons learnt and policy recommendations

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Lessons and policy recommendations -Coffee value chain in Ethiopia

- Invisible costs and benefits within ecosystem services should also be considered while making policies.
  - They are rarely accounted for while determining the profitability of agroforestry systems and in policy decisions.
  - Some of the invisible benefits within agroforestry ; other provisioning services, carbon storage, pollination services, maintaining biodiversity, soil erosion control, water regulation and treatment, improving soil fertility, nutrient cycling and so on.

- Certification premiums should be promoted so as to make agroforestry coffee production systems more profitable.
  - In Ethiopia, shaded coffee farmers certified under rainforest alliance get higher returns compared to garden coffee farmers.
  - This is attributable to the certification premium- for example the rain forest Alliance certification standard pays shaded coffee farmers a premium of about 21% the price of regular coffee.

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Lessons and policy recommendations -Coffee value chain in Ethiopia

- Coffee processing waste from wet coffee processing in Ethiopia is a major environmental (water pollution and greenhouse gas emissions) and health cost among the people near these industries. Also results in significant loss of aquatic life.

- The coffee processing waste problem can be resolved either through:
  - Generating bio-ethanol from the waste (profitable venture)- this has not yet been adopted in Ethiopia's coffee processing industries.
  - Treating the waste water before releasing the water into the water bodies- similarly this rarely happens within these coffee processing industries.

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Lessons learnt and policy recommendations-Cocoa in Ghana

- Certification premium paid to agroforestry cocoa farmers is less making AF cocoa less profitable compared to full sun and high tech cocoa system.
  - This has resulted in a decline in the proportion of shaded cocoa over the last decade.

- Need to sensitize consumers on the ecological and environmental benefits from shaded cocoa to increase their willingness to pay shaded cocoa farmers a higher premium.

- Proportion of children still involved in child labour during cocoa production in Ghana is still high.
  - Although all certification schemes prohibit child labour, no single label can guarantee that the chocolate was made without the use of exploitive child labour.
  - There is need for the Government of Ghana to strengthen the enforcement of existing child labour laws and the international labour organization (ILO) regulations on child labour.

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Lessons learnt and policy recommendations-Cocoa in Ghana

- There are massive imbalances in the global cocoa value chain.
  - Cocoa and chocolate companies and retailers take up the bulk of the share-35% and 42%, respectively (most of them are located in Europe)- Ghana's farmers (producers) take up only 6.6%.
  - Encouraging more cocoa processing locally may help increase the share of benefits accruing to Ghana.

- Pesticide and fertilizer use in cocoa farming is attributable to environmental and health costs among the farmers.
  - Most of the health effects are felt by the farmers during pesticides application- Need to promote use of protective gear while applying these pesticides.
  - Also pesticides residues in soils and water bodies is of concern- there is need to regulate the type of pesticides cocoa farmers in Ghana apply.
  - Traces of pesticides in cocoa beans are however negligible

- Cocoa processing contributes more to degradation of soil through the acidification process (from pollutants released in the air).

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Limitation of the study and the possible research gaps

- Data limitations since we used benefit transfer method- particularly on monetary valuation for some ecosystem services and some services along the value chain. We had to use proxies as approximation of the monetary value due to data limitations.

- *Possible research gaps*
  - Estimating the health costs- we used proxies for the cost estimates. There is need for a detailed study to be able to fully capture health costs associated with coffee processing waste and pesticide use in cocoa farms.
  - Need for a detailed study on the cost of water pollution from coffee processing waste in Ethiopia.
    - Currently we used proxies (cost of treating water) as the cost of water pollution but this may not fully capture all the costs associated with water pollution.

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Thank you all!

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