Implementing agroforestry systems in cocoa production as climate change adaptation methods - Case study from Ivory Coast

Renée Brunelle, SOCODEVI, Canada
Kacou Antoine Alban M’Bo, CEA-CCBAD / WASCAL, Ivory Coast
Alla Kouadio Okou, SOCODEVI & ANADER, Ivory Coast
Rachel Tchéma, SOCODEVI, Ivory Coast
Virginie Levasseur, SOCODEVI, Canada
AdaptCoop - Project

• General objective: To sustainably increase resilience of cocoa producers and coops in Ivory Coast in climate change context

• 3-year project funded by the International Development Research Centre (IDRC - Ottawa, Canada)

• Multiple implementation partners:
  • SOCODEVI, Ouranos, WASCAL / CEACCBAD, CNRA and ANADER

• AdaptCoop Reflexion Group: Implementation partners and stakeholders
Main results stemming from surveys on cocoa production, climate change impacts and existing agroecological adaptation practices

Surveys conducted with 69 women and 288 men, by Dr M’Bo of CEA-CCBAD and team in 2019-2020 – AdaptCoop Project

Disparity between women and men regarding if they feel able to act to reduce the negative impacts of climate change

A majority of persons saying that they feel able of taking action to deal with the negative impacts of climate change, mention agroforestry to do so
Main results stemming from surveys on cocoa production, climate change impacts and existing agroecological adaptation practices

Women face barriers that hinder their adoption of certain agroecological adaptation practices and hinder the recognition of their environmental leadership.
Multicriteria analysis to identify most promising agroecological adaptation practices

- **Efficiency**
  (number of climate issues addressed, feasibility, etc.)

- **Social and gender impact**
  (scope of positive impact, workload for women, accessibility, etc.)

- **Environmental impact**
  (carbon capture, water retention, microclimate, etc.)

- **Economic impact**
  (resources needed, revenue potential, etc.)
Promising agroecological adaptation practices (per decreasing order of multicriteria score)

- Planting of compatible fruit and timber trees for shade purposes
- Planting of perennial leguminous
- Association with edible cover plants
- Mulching around cocoa trees
- Association with food crops
- Use of vegetative barriers
- Use of grass windrows
- Compost (from cocoa residues)
Practices adopted by producers and coops

- Planting of compatible fruit and timber trees, either for shade purposes or as vegetative barriers against swollen shoot virus and high winds, as well as perennial leguminous
- Composting
- Other promising diversification practices (edible cover crops / food crops) were not chosen because of contextual elements: mainly old cocoa plantations requiring pruning activities (which was chosen and done) as a prerequisite to better value different stratus of vegetation
- Strengthening of coops’ internal capacities to support producers on agroforestry
- New / improved coop services such as climate-aware and gender-oriented mission statement, women’s leadership in expanding use of improved stoves
Concluding remarks

- Training and personalized follow-up, through the cooperatives
- Going beyond the distribution of shade trees
- Explicitly reaching and empowering women
- Going beyond technical agronomic itineraries often oriented towards one cash crop at a time, for more diversified income, and more resilience
Merci! Thank you!

r.brunelle@socodevi.org