

Comparative Tree Planting Strategies: Impact and Application in Haiti



Case 1: Watershed Management

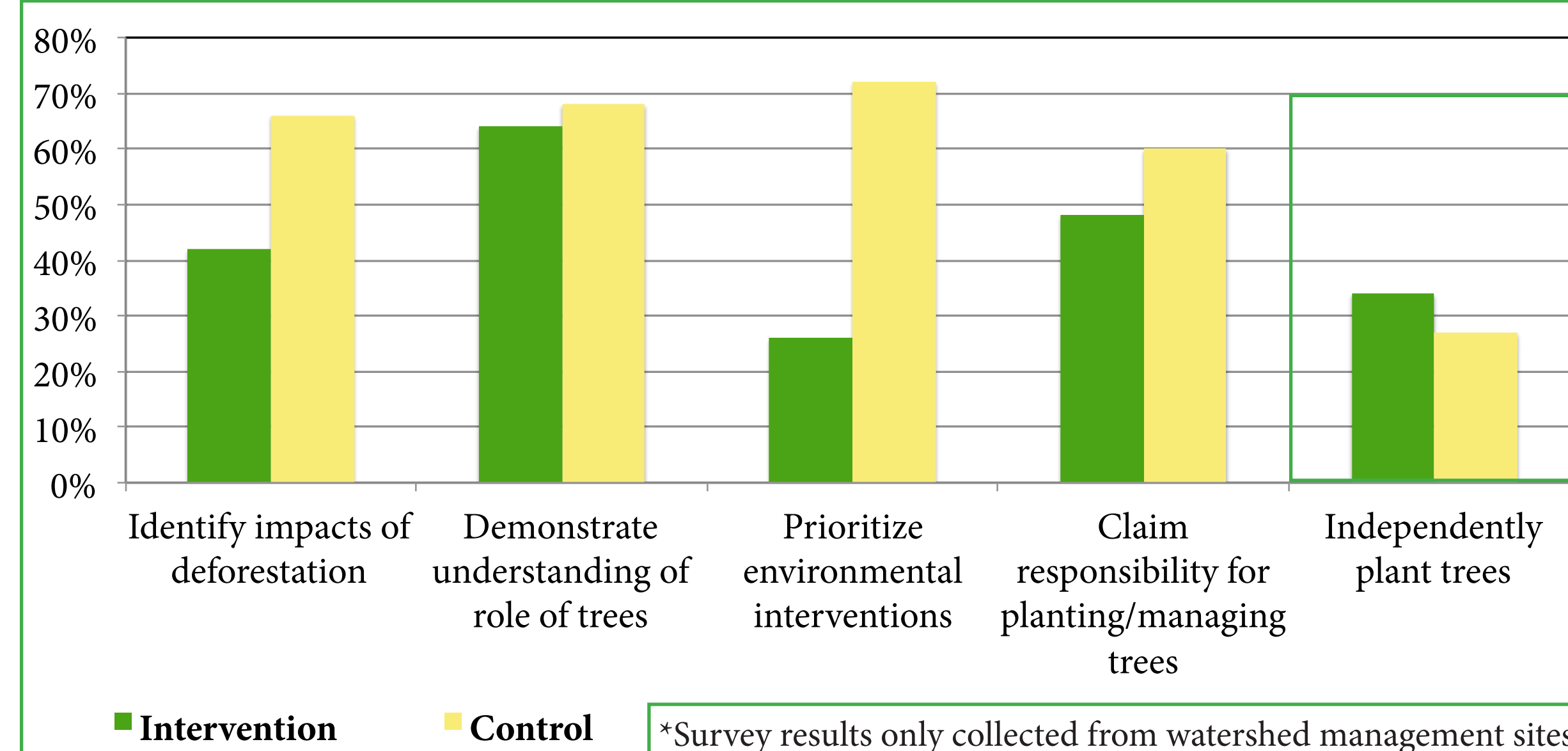
International Organization for Migration (IOM)



Program started in 2006. Public funding. Implemented in six regions. Sites evaluated in Petit-Goave (started 2006) and Jacmel (started 2012).

- **Approach:** Integrated response to severe flooding, declining soil fertility, volatile river flows and widespread unemployment.
- **Implementation:** Construction of erosion barriers thru paid labor (Cash for Work). *Organic:* trees and deep-rooted grass. *Physical:* Stone walls, contour canals. Implemented on communal land in upper catchments of watersheds to mitigate flooding & erosion (and create employment).
- **Primary objective:** Macro-environmental
- **Results:** 2.7 million trees, 278,454 meters of stone walls, 107,582 meters of contour canals, 128,000 short-term jobs, 66 nurseries (16 remaining)
- **Evaluation Methodology:** Documentary review, structured observation of field sites, surveys of treatment and control members (n=106)

IOM Survey Results*



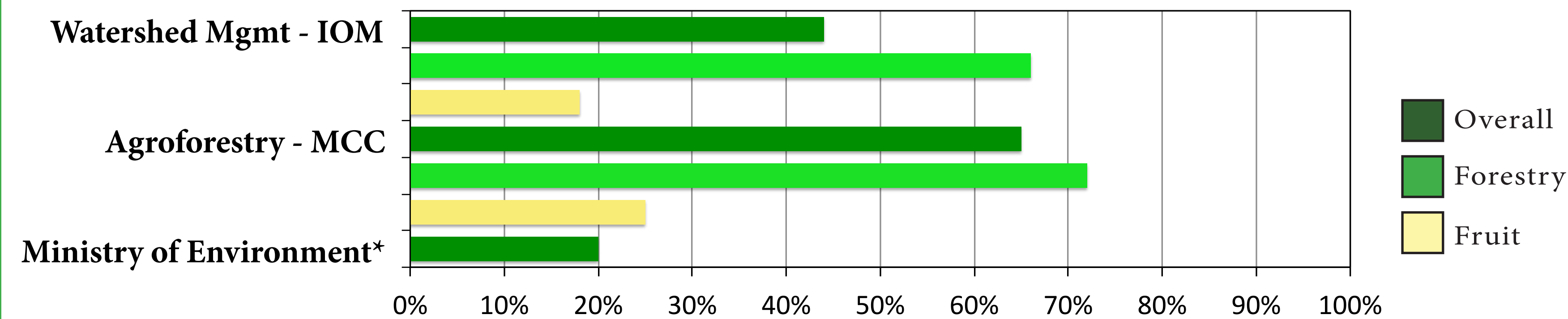
Objectives

50+ year history of environmental programming (range of interventions: top-down -> grassroots)

No consensus on tree planting strategy in Haiti

- **Evaluate two most established approaches:** 1) Watershed Management 2) Agroforestry
- **Criteria:** change in knowledge, attitudes, behavior; environmental impact; cost-efficiency; sustainability
- **Determine *what works where*:** impact and application of different approaches
- **Disseminate** results to other partners engaged in tree planting in Haiti

Tree Survival Rates by Program



* Minimum overall survival rate after three years - set by Government of Haiti as part of national reforestation strategy

- **Survival rate varies greatly among species:** forestry species accounts for high survival rate of programs.
- **Common characteristics of species:** drought resistance, tolerance to poor soil conditions and bitter leaves (which discourage livestock predation). Wind resistance proved important on exposed mountaintops.
- **Time of planting critical to survival:** trees planted during the dry season fared worse, even with hand irrigation.

Lessons Learned

1. **Paid Labor:** Necessary to reforest public lands and remote upper catchments, but can undermine ownership.
2. **Voluntary Labor:** Decentralized, community-run nurseries reduce costs and build capacity and buy-in. Tree planting as a joint-venture: MCC provides trees (capital), farmers provide labor and land to plant trees.
3. **Motivation:** Farmers prioritize economic over environmental considerations: Under the right conditions, trees can satisfy both objectives. Charcoal & timber provide economic incentive to plant trees
4. **Funding:** diversified funding essential to program's longevity. MCC continues through private donors, IOM activities downsized
5. **Sustainability vs. Impact:** trade offs in pursuing financial sustainability of activities. Requiring payment for trees means fewer trees planted. Trees as a public good/service: secondary environmental benefit -> should be massively subsidized in Haiti



Case 2: Agroforestry

Mennonite Central Committee (MCC)



Program started in 1992 through USAID funding. Now privately funded. Implemented in 22 communities in Central Plateau region.

- **Approach:** Livelihoods approach incorporates tree planting into existing agricultural systems. Trees presented as another cash crop to participants to plant, manage and harvest – as they see fit.
- **Implementation:** Trees provided to smallholder farmers at annual distributions to plant on private property with assistance of technicians.
- **Primary Objective:** Micro-economic
- **Results:** 7.6 million trees, 23 nurseries established (22 remaining)

- **Evaluation Methodology:** Documentary review, structured observation of field sites, semi-structured interviews of key informants

Deliverables

- Program evaluation report (internal) - IOM
- Lessons learned report (external) - IOM & MCC
- Program manual (external) - MCC
- Journal article (external) - select publications

Acknowledgements

Marianne Schmink, PhD, Advisory Committee Chair, UF
Gerald Murray, PhD, Advisory Committee Member, UF
Glenn Galloway, PhD, MDP Program Director, UF
Francois Fournier, Disaster Risk Reduction Coordinator, IOM Haiti
Jean Remy Azor, Desarmes Office Director, MCC Haiti