

Appendix 1: Biophysical and Governance Activities undertaken in the management of CFRs.

Categorization	Specific Activity	Specifications/Goals^a
Environment-related activities, $V_{i,t-1}$	Building fences	Keep cattle out of CFR
	Ecoshelters	Provide fish habitat
	Adding fertilizer	Increase nutrient availability when P and K levels too low
	Adding fingerlings or broodstock	Increase fish recruitment
	Adding or removing vegetation	Achieve ideal degree of intermediate vegetation coverage
	Expanding the CFR	Increase habitat size
Water-quality related activities, Q_{it}	Planting flooded forest	Reduce run-off
	Purchasing a boat for monitoring and patrols	Reduce illegal fishing
	Adding channels	Increase connectivity
	Adding inlets/outlets	Increase connectivity
	Adding pump	Increase water level in CFR
Governance Meetings, M_{it}	Building dam	Increase water level in CFR
	Deepening the CFR	Increase habitat size
	Awareness raising events	Increase knowledge about CFR and its management amount community
	Coaching on management skills	Increase knowledge about CFR and its management among CFR Committee
Governance Activities, A_{it}	Reflection workshops	Facilitate CFR Committee reflection and planning
	Building a new CFR	Expansion of CFR domain
	Demarcating the boundaries of the CFR	Reduce illegal fishing, establish jurisdiction
	Adding signs, paths, guard infrastructure	Reduce illegal fishing
	Holding elections of CFR Committees	Establish governance structure
	Establishing bylaws	Establish governance structure
	Holding events	Establish CFR governance
	Integrating CFR actions into broader community investment plans	Increase CFR sustainability

^a Hortle et al., 2004; Joffre et al., 2012; Miratori and Brooks, 2015; Brooks and Sieu, 2016