

SUPPLEMENTARY MATERIAL

The main source of information for this study was a web-based literature search. We selected studies based on the following criteria. First, we primarily identified studies specifically on the common pool natural resources of SSA. We included meta-analyses that compared the natural commons' situations in SSA and non-SSA countries. Second, we identified SSA studies that focus on three specific types of ecosystems: forests and woodlands, wildlife, and marine and freshwater fisheries. These sectors were chosen because of their relative importance for the livelihoods of the poor in SSA. In addition, these ecosystems face great threats to biodiversity conservation due to the conflicts between humans and these natural resources. Moreover, these threats are believed to have major implications for poverty.¹ Thus, most research efforts to evaluate policies and reforms aimed at managing common pool resources in SSA have focused on these three ecosystems.

Our third search criterion concerns the key objectives of the management approaches and policy measures implemented. Conserving natural resources while simultaneously improving livelihoods, particularly of the rural poor, have been the two major goals of almost all management and policy reforms for sustainable development in SSA (Adams and Hutton 2007, Sunderlin et al. 2008, Camody 2011). Thus, we included studies that used a wide range of methods to evaluate the conservation and/or livelihoods impacts of policy reforms and interventions aimed at managing common pool resources in SSA.

Based on these three criteria, we identified -- and included in our literature review -- 105 impact evaluation studies (see Table 1), of which 79 (75.2%) are published empirical studies, which employ quantitative impact evaluation methods (group **A**), 12 are analytical/conceptual evaluation studies (group **B**), and 14 are reviews of impact evaluation studies (e.g., meta analyses and other) (group **C**). The studies we reviewed relied on various types of empirical methods and data. Economics studies -- indicated as those "published in economic & development studies journals" (see Table 1) -- accounted for about one-third (35.4%) of the empirical evaluation literature we reviewed. The smallest contribution of economics studies is in the wildlife category, where only 10.5% of the empirical evaluation studies have been

¹ See De Graaf et al. (2015), FAO (2015), FAO (2015a), and Brockington et al. (2008) for recent studies and data on the status and value of these resources.

published in economics and development journals. In contrast, natural sciences studies accounted for 87.3% of the conservation impact studies and significant shares, 37.5% and 65.2%, respectively, of the livelihood impact and joint conservation and livelihood impact studies (Table 1). It is also important to note that our review focused on the more recent literature (i.e., primarily studies conducted after the year 2000).

Table 1. Studies included in literature review, by type of study, resource sector, impact assessed, and disciplinary approach

	Forest & Woodlands	Wildlife	Fisheries	Total
A. Number of empirical evaluation studies (A1+A2+A3)	28	19	32	79
Percent of total evaluation studies (% of D)	77.8	65.5	80.0	75.2
Percent that used socioeconomic data & indicators	71.4	57.9	84.4	73.4
Percent published in economic & development studies journals	57.1	10.5	31.3	35.4
Percent published in natural sciences studies journals	42.9	89.5	68.7	64.6
A1. No. of conservation impacts studies	11	11	18	40
Percent of empirical evaluation studies (% of A)	39.3	57.9	56.3	50.6
Percent that used socioeconomic data & indicators	10.7	15.8	40.6	24.1
Percent published in economic & development studies journals	17.9	0.0	15.6	12.7
Percent published in natural sciences studies journals	82.1	100.0	84.4	87.3
A2. No. of livelihoods' impacts studies	7	1	8	16
Percent of empirical evaluation studies (% of A)	25.0	5.3	25.0	20.3
Percent that used socioeconomic data & indicators	100.0	100.0	100.0	100.0
Percent published in economic & development studies journals	100.0	0.0	37.5	62.5
Percent published in natural sciences studies journals	00.0	00.0	62.5	37.5
A3. No. of combined conservation & livelihoods	10	7	6	23
Percent of empirical evaluation studies (% of A)	35.7	36.8	18.8	29.1
Percent that used socioeconomic data & indicators	100.0	100.0	100.0	100.0
Percent published in economic & development studies journals	40.0	28.6	33.3	34.8
Percent published in natural sciences studies journals	60.0	71.4	66.7	65.2
B. No. of analytical/conceptual evaluation studies	5	4	3	12
Percent of total evaluation studies (% of D)	13.9	13.8	7.5	11.4
C. No. of reviews of impact evaluation studies	3	6	5	14
Percent of total evaluation studies (% of D)	8.3	20.7	12.5	13.3
D. Total number of impact evaluation studies (A+B+C)	36	29	40	105

Notes: Types of studies include empirical, analytical/conceptual, and literature reviews; resource sectors examined include forest & woodlands, wildlife, and fisheries; impacts assessed are nature conservation and people's livelihoods; disciplinary approaches refer to natural sciences, and economic and development studies; socioeconomic data and indicators include per capita income, consumption expenditure, net benefits, revenue and time spent, equity and distribution, and livelihood dependence.