

Appendix 1. This Appendix contains details on the multi-stakeholders workshops conducted at sub-national and national level in Tanzania.

Step 2

Between February and June 2014, back-to-back multi-stakeholder workshops were conducted, each lasting two days and involving 180 participants in total (Table A1.1 and WWF-TCO 2015). Exceptionally, the workshop in the Eastern unit lasted one day only, and involved the largest proportion of academics. A team of experts in forestry, environmental sciences, conservation and community based natural resource management amongst the authors facilitated each of the seven workshops. During the workshops, discussions were mainly conducted in the national language (Kiswahili); nominated group members filled the output forms in English. At the end of each workshop participants were requested to complete feedback questionnaires on the level of engagement and understanding of the process.

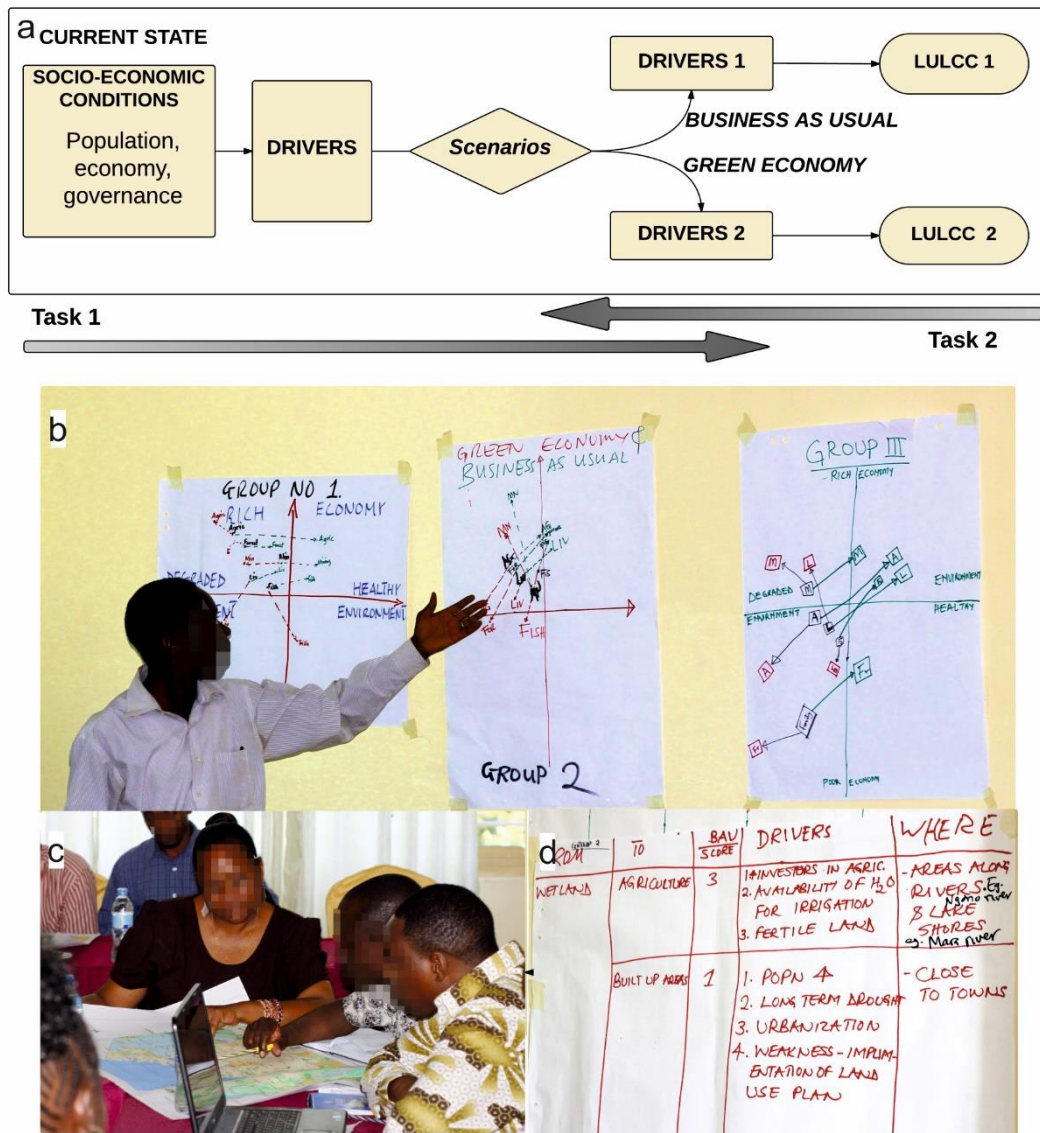
Table A1.1: Stakeholders' composition in regional a) and national b) workshops in Tanzania. Frequency (%) of participants is reported by institution categories and gender (women) by regions. Women were more represented in research institutions and civil society organisations (38.5 and 32.5 %, respectively) than in governmental institutions (5.2%).

a)	Central	Eastern	Lake	Northern	Southern highland	Southern	Western	Total
District government officers	42.9	25.0	30.8	37.0	42.3	25.0	47.8	35.6
Civil society organisations	28.6	20.0	28.2	22.2	23.1	29.2	21.7	25.0
Regional government officers	14.3	10.0	15.4	11.1	15.4	12.5	17.4	13.9
Private sector	9.5	0.0	5.1	11.1	3.8	25.0	4.3	8.3
Government officers (TANROAD S, TFS, TCCIA)	4.8	5.0	10.3	7.4	7.7	8.3	4.3	7.2
National* Research Institutes and Universities	0.0	40.0	2.6	11.1	3.8	0.0	0.0	7.2
Media	0.0	0.0	7.7	0.0	3.8	0.0	0.0	2.2
Religious Institute	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.6
Women	4.8	20.0	12.8	20.0	19.2	20.8	8.7	14.9

* One participant from the University of Florida and affiliated to the Sokoine University of Agriculture in Morogoro, Tanzania.

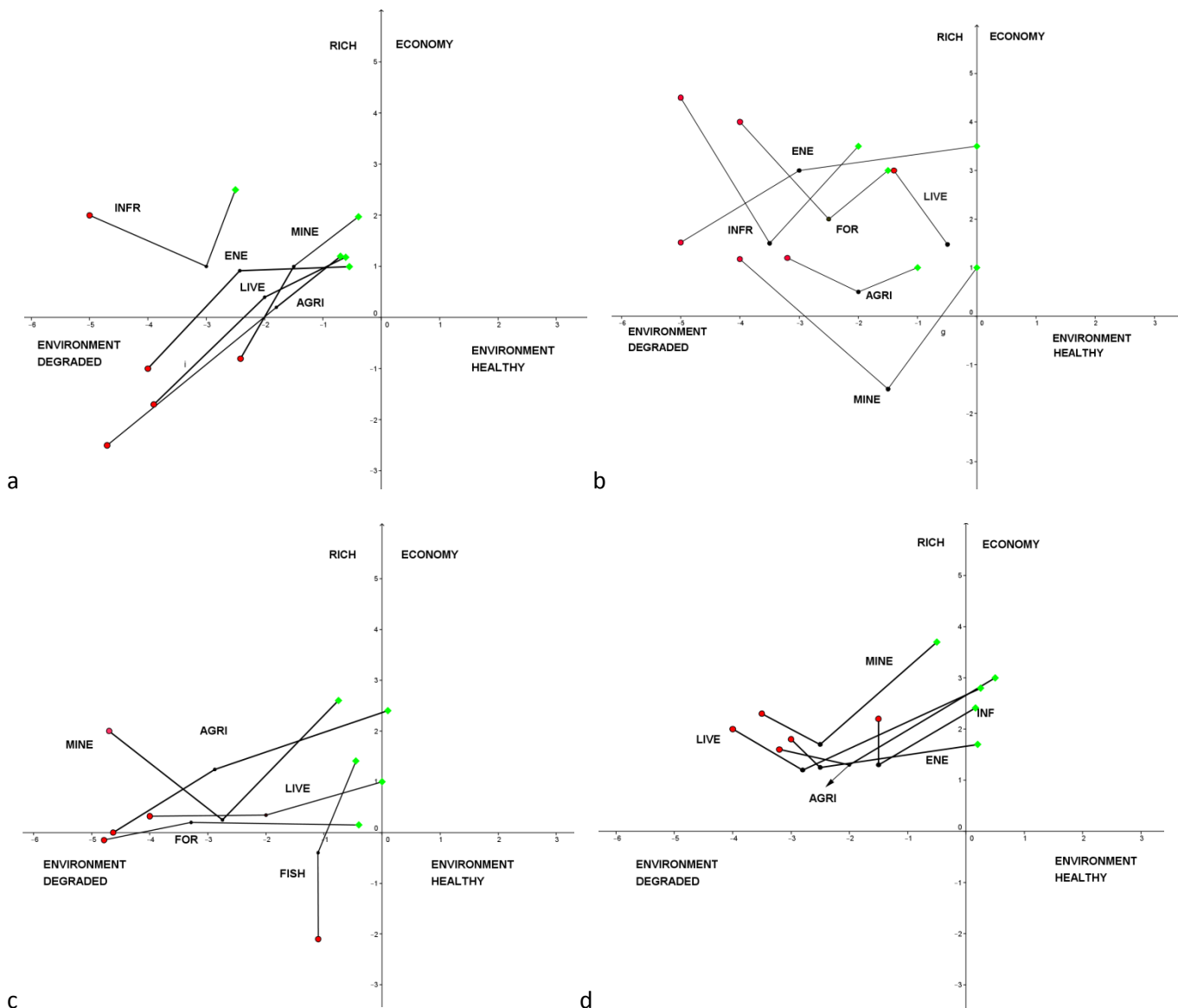
Stakeholder-driven scenario development (Fig. A1.1) followed the logic flow from current socioeconomic conditions to future land changes (Fig. A1.1a). In the first participatory task, stakeholders developed possible future economic sector trajectories by using economy-environment axes charts as reference (Fig. A1.1b) and qualitatively described them. In the second task, using a reference land use and land cover map (Fig. A1.1c), stakeholders evaluated the likelihood of various land use and land cover changes (LULCC), their direct drivers and the spatial distribution (Fig. A1.1d).

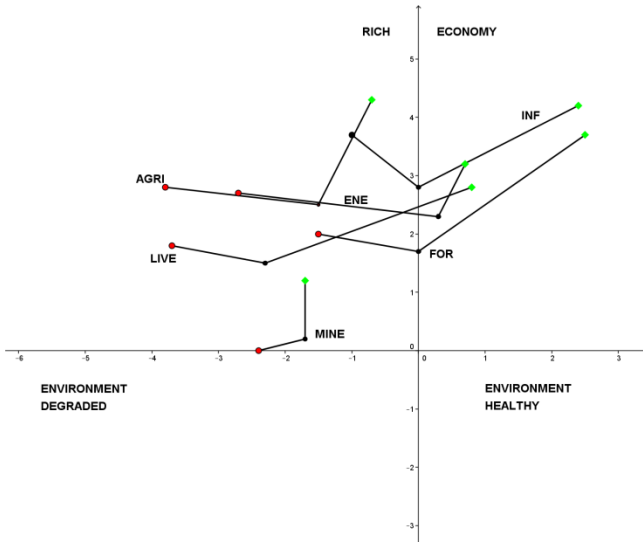
Figure A1.1. Stakeholder-driven scenario development logic flow (a) and step by step representation (c-d).



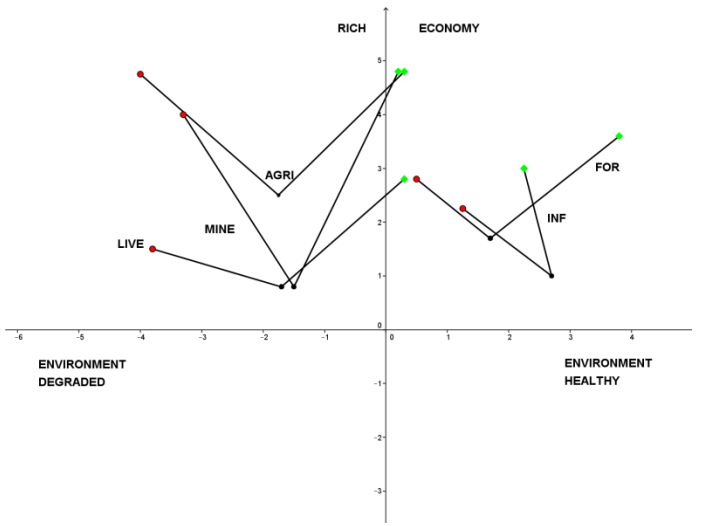
Overall, participants identified agriculture, energy (mainly charcoal and firewood), forestry, livestock keeping, mining (e.g. minerals, gems, gas or oil), infrastructures (e.g. transport, construction) as the core economic sectors determining future socio-economic and environmental trajectories, though to different extents across Zones. In addition, wildlife management, tourism, and fishing sectors were identified in Eastern unit, Southern and Lake unit, respectively (Fig. A1.2).

Fig. A1.2. Economic sectors positions and trajectories in current situation and business as usual and green economy scenarios in the units of analysis: a) Central, b) Eastern, c) Lake, d) Northern, e) Southern highlands, f) Southern, g) Western. Stakeholders analysed agriculture (AGRI), livestock (LIVE), energy (ENE), forestry (FOR), mining (MINE), infrastructure (INF) and fishery (FISH) sectors. Black, red and green dots represent positions in current situation, business as usual and green economy scenarios respectively.

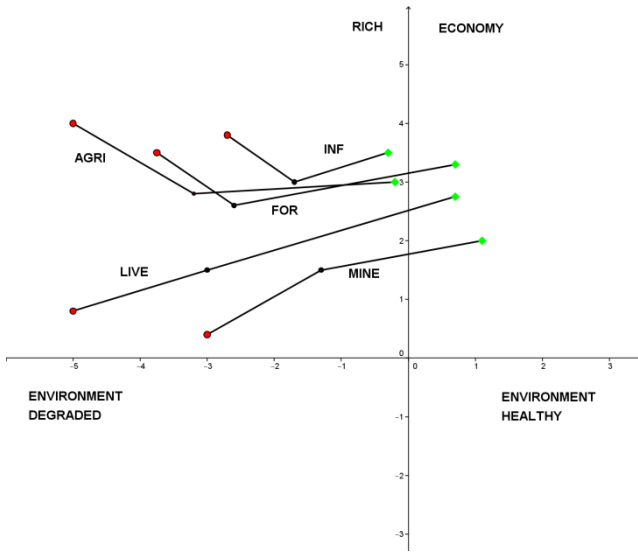




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Step 4

The synthesis workshop gathered 60 stakeholders from public institutions (mainly at national level), research institutions, CSOs, agribusiness and media (Table A1.2, WWF-TCO 2015). Following the presentation of results from regional workshops, participants visually validated the preliminary scenarios output maps, in particular the spatial pattern of farmland expansion. Guided by specific questions, separate groups discussed the main assumptions drawn from the regional workshops focusing on crop suitability and productivity, charcoal production, industry and infrastructures development. In particular, participants highlighted accessibility to markets and land suitability for cash crops as factors determining expansion of commercial farming (Table A2.1c). As for crop productivity, they suggested an average increase of 10% under GE scenario. Participants also provided useful inputs on datasets for roads, irrigation sites and mining activities. A revision of the spatial indicators and quantitative rules used in the modelling step followed the workshop.

Table A1.2. Stakeholders' composition in national workshops in Tanzania.

	Total (%)
Civil society organisations	25.0
Government officers (VPO, TANROADS, TFS, TMA, TIC)	21.7
National Research Institutes and Universities	18.3
Ministry officers	11.7
Media	10.0
Regional government officers	5.0
District government officers	3.3
Private sector	3.3
Women	15.6