

Climate Action Enhancement Package: Belize

AFOLU - Forestry and Land Use

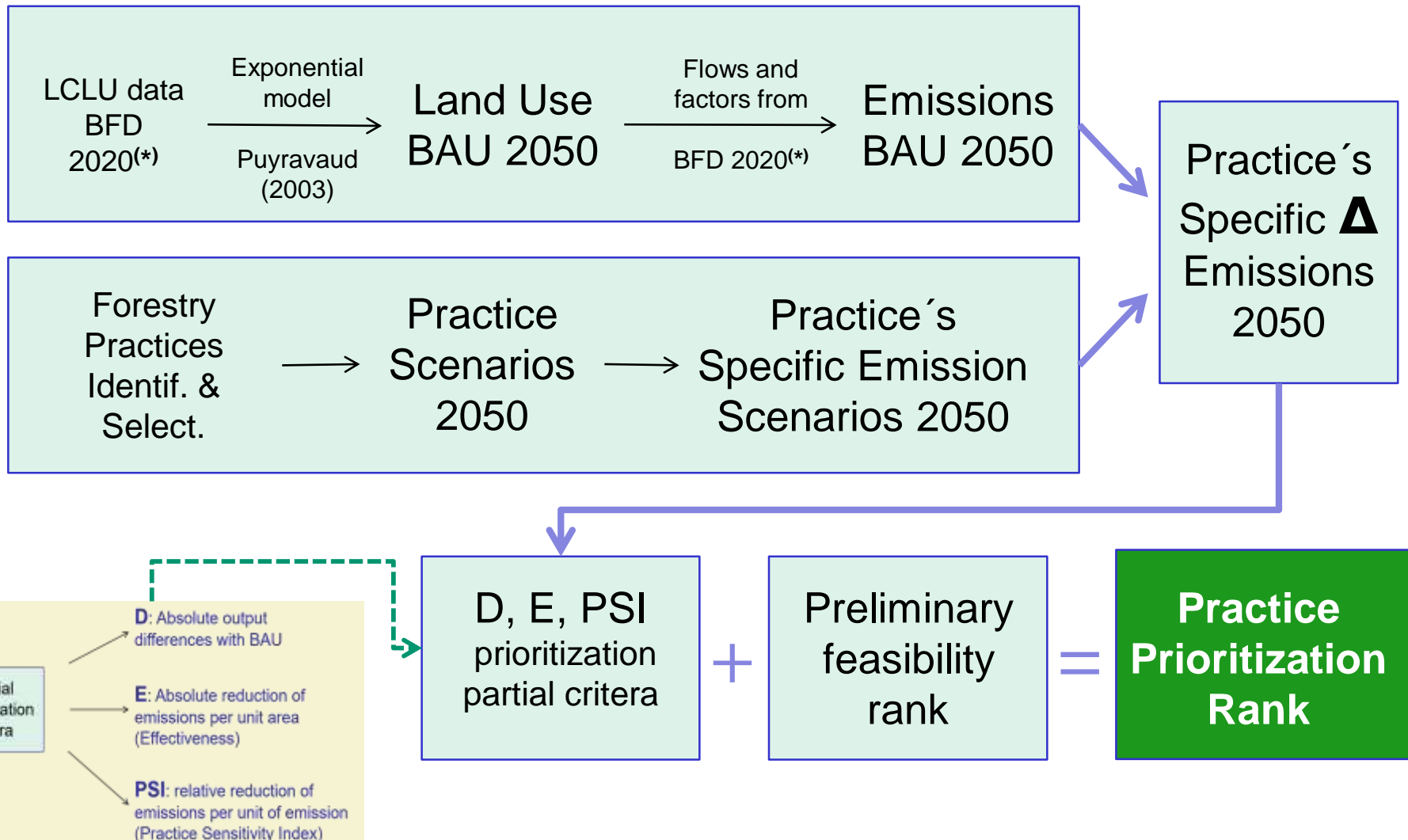
Methodology and Workplan



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1. Background and document review at national, regional and international levels.
2. Identification of mitigation options linked to forestry practices.
3. Modeling practices scenarios & multi-criteria analysis for practices prioritization.

3. Modeling & Multi-criteria analysis



(*) Belize Forest Department. 2020. Belize Forest Reference Level (FREL) 2001 - 2015. Belmopan City: Government of Belize

3. Multi-criteria analysis (cont.)

Forestry practices (<u>some examples</u>)	Scenarios definition	Targets
Conservation	A 20% reduction in forest covers that would be transferred to other uses. Allocation of that 20% to strict conservation	All forest types affected by anthropic disturbances according to 2050 BAU projections
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Logging slow down	A 20% reduction in expected forest cover affected by logging	All forest types affected by logging according to 2050 BAU projections
Reforestation w/ fast-growing spp	A 20% increment in expected plantations with fast-growing tree species to BAU projections.	All forest types replaced by plantations according to 2050 BAU projections
Forest restoration	A 20% increment in expected forest cover plus 20% increment in the above- and below-ground forest growth rate.	All forest types according to 2050 BAU projections
Low / Reduced impact logging (RIL)	A 20% reduction in CO ₂ e emissions from logging used forests.	All forest types affected by logging according to 2050 BAU projections

2. Multi-criteria analysis for practices prioritization



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Practices	Mitigation ranks				Prioritization rank
	Difference with BAU (Mt of CO ₂ e year ⁻¹)	PSI 2050 Forests	Effectiveness per area unit	Feasibility	
Restoration	1	1	3	3	1
RIL*	3	3	1	2	2
Forest Conservation	2	2	6	1	3
Logging Slow Down	4	4	2	1	3
Fire Suppression	5	5	5	2	5
Grazing Suppression	7	7	4	1	6
Reforestation	6	6	7	1	7
Pest Control	8	7	8	3	8

*RIL: Reduced impact logging

Main conclusions and final remarks

- *The ranking of potential capacities to reduce absolute emissions (E) is mostly uncoupled from those ranks resulting from E and PSI criteria, reflecting their complementary information content.*
- *The final prioritization rank also includes an expert feasibility rank, which by the moment only consists of the authors of this report.*
- *According to the simulated effects of practices, restoration, reduced impact logging (RIL), conservation and slow down degradation rates by logging are the four out nine most promissory forestry practices for the mitigation of mitigations from Belize's AFOLU sector.*