



Country situation on estimation of carbon stock change in mineral soils

Country: Lao PDR

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Introduction:

- Lao People's Democratic Republic (Lao PDR), located in the heart of the Greater Mekong Sub-Region (GMS).
- Divided into seventeen provinces, and one municipal province of Vientiane Capital with total area of 236,800 km².
- Population is around 7.28 million people and is expected to increase to 9.4 million people by 2050.
- 2018-2020, Laos had finished the WRB classification and digital soil map of Lao PDR.
- 2020-2021, produced the soil organic carbon and salt-affected soils maps.



3) What are the soil organic carbon data/maps available at national level ?

We have:

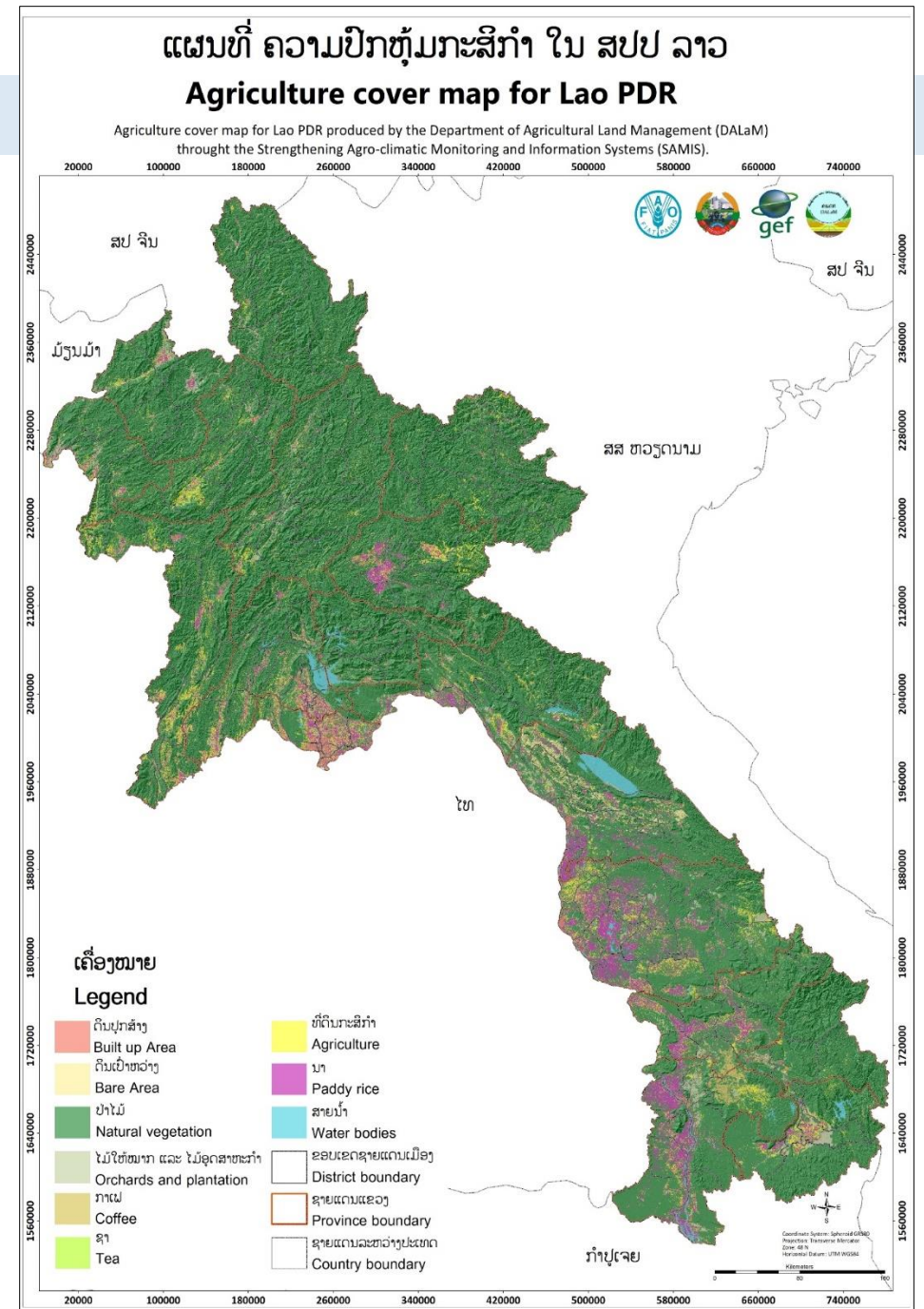
- Land cover map;
- Soil map;
- SOC map

Produced and developed by DALaM.

DOF is working for SOC maps in the forest areas.

Agriculture land cover map of Lao PDR

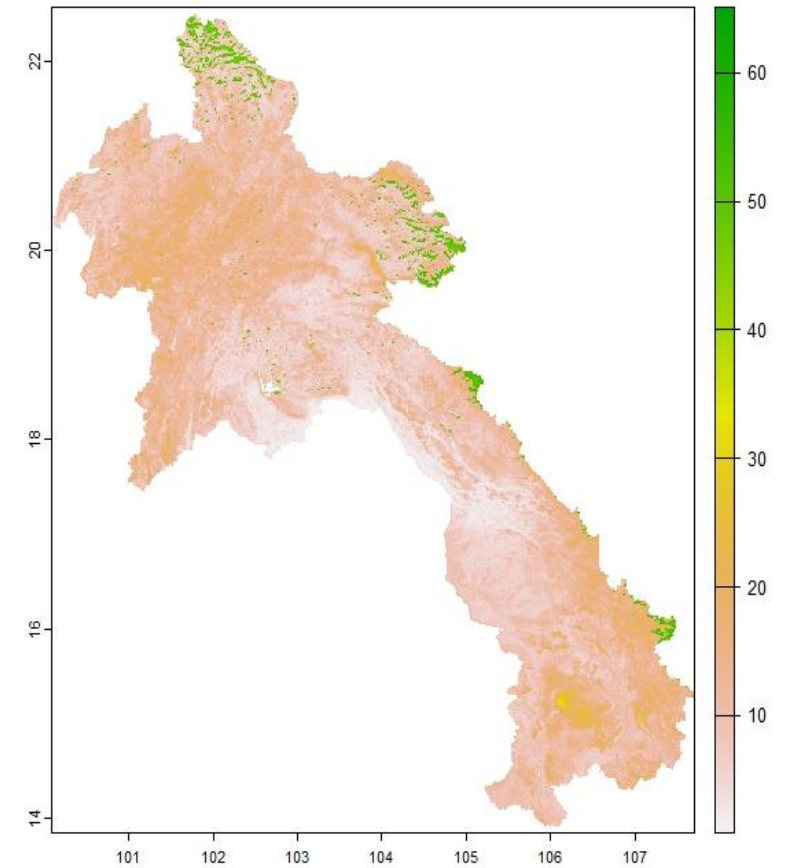
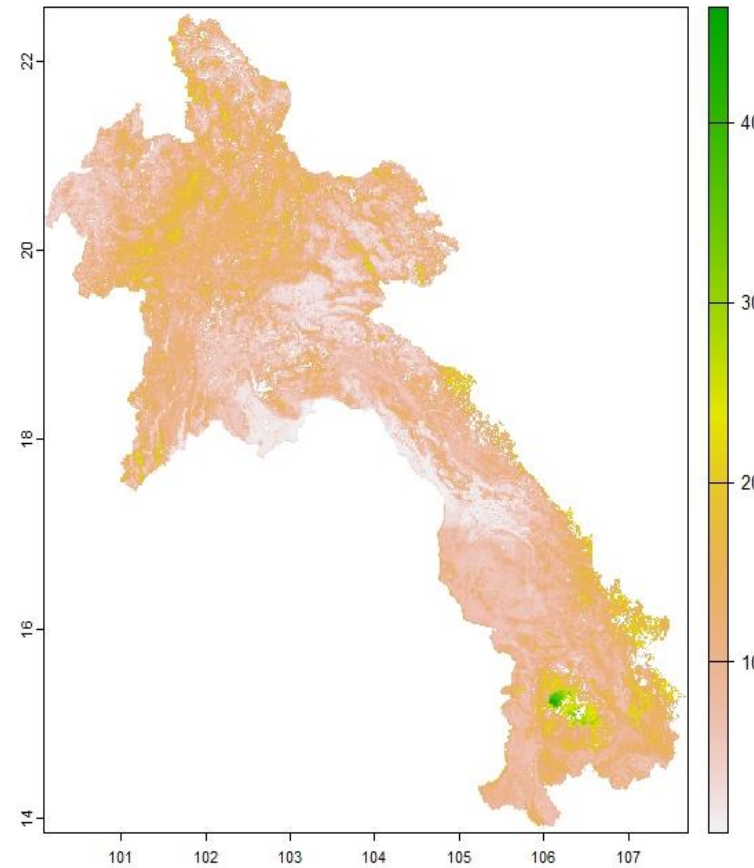
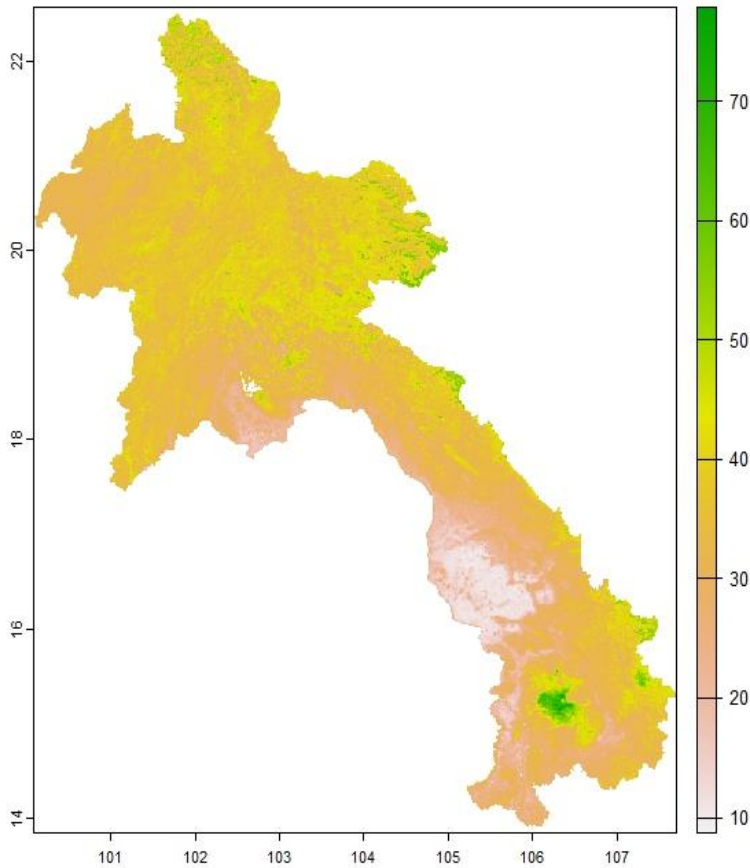
LEVEL1 Definition	LEVEL 1 – Map code	LEVEL2 Definition	LEVEL 2 – Map code
Built-up	BU	Built-up non linear	BU
		Built-up linear	BUL
Bare Areas	BA	Bare Areas	BA
Natural vegetation	VG	Dense natural vegetation	VGD
		Sparse natural vegetation	VGS
Orchards and plantations	OP	Orchards and plantations	OP
Coffee plantations	CP	Coffee plantations	CP
Tea plantations	TP	Tea plantations	TP
Agriculture	AG	Annual crops	AC
		Cassava	CS
		Sugarcane	SC
		Maize	MA
		Steep slope agriculture	SSA
Paddy rice	RC	Irrigated rice	IR
		Rainfed rice	RR
		Double rice	RIR
Water bodies and wetlands	WT	Perennial water	WTP
		Seasonal water	WTS
		Natural vegetation on water	WET



SOC of Lao PDR

- SOC of 0-30, 30-60, and 60-100 Cm

by using Quantile Regression Forest



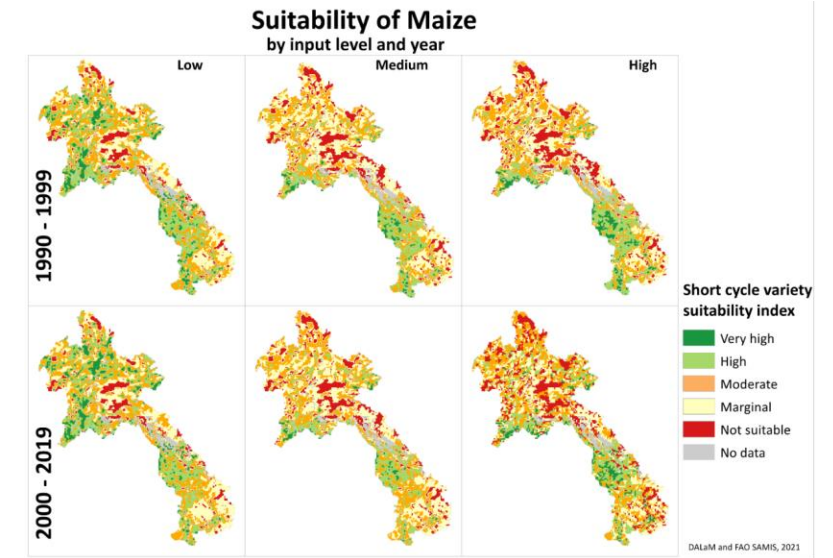
4) Are you aware of any nation-wide efforts to establish an MRV system for SOC? If not what are the challenges in establishing it?

- There is no MRV system for SOC in Laos.

- What are the challenges:
 1. capacity building;
 2. action/ master plan;
 3. fund

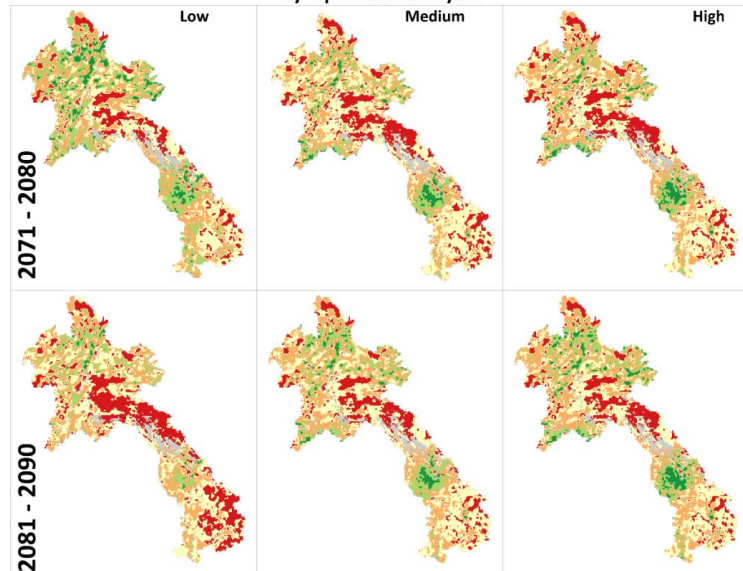
5) What national policies targeting SOC sequestration potential have been adopted?

- Agro-ecological zoning map and storymaps (Use alternative futures scenarios in agriculture planning policy preparation);
- Promoting fertilizer uses for agriculture activities

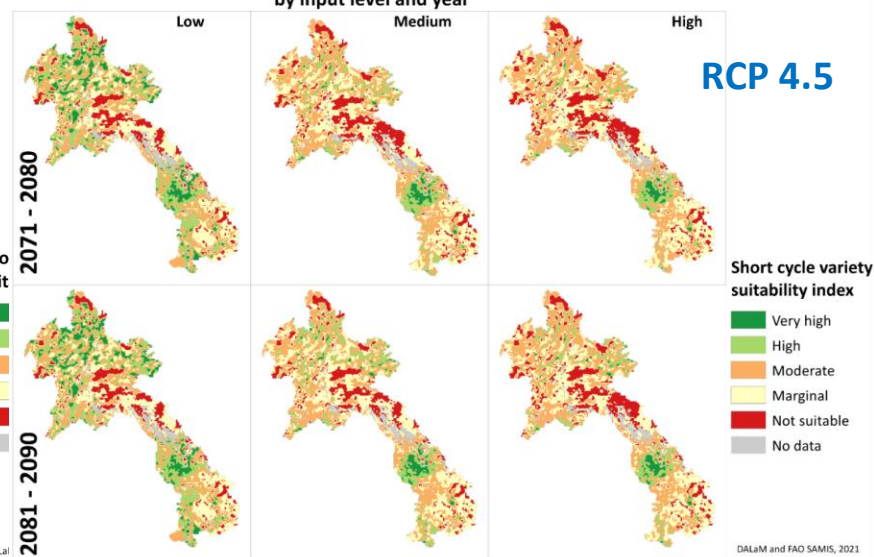


RCP 2.6

Suitability of Maize
by input level and year

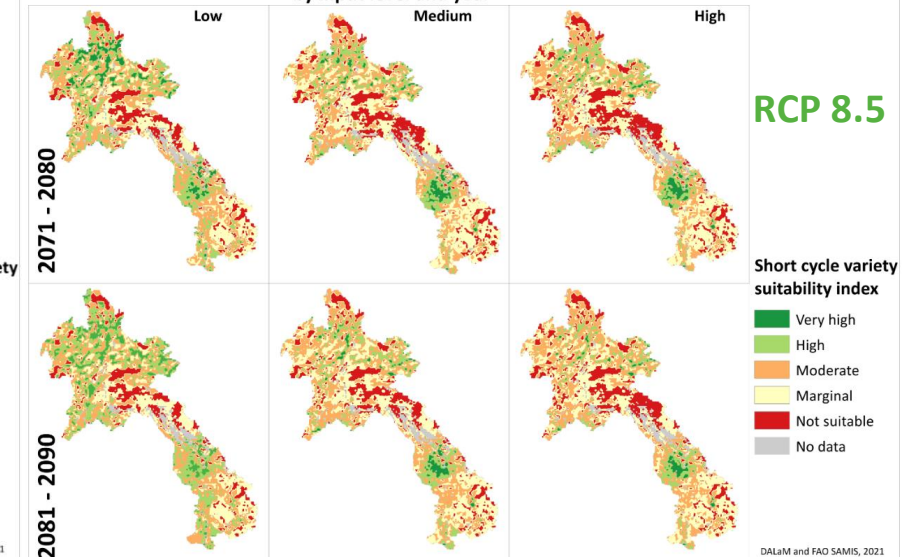


Suitability of Maize
by input level and year



RCP 4.5

Suitability of Maize
by input level and year



RCP 8.5

Thank
You

