

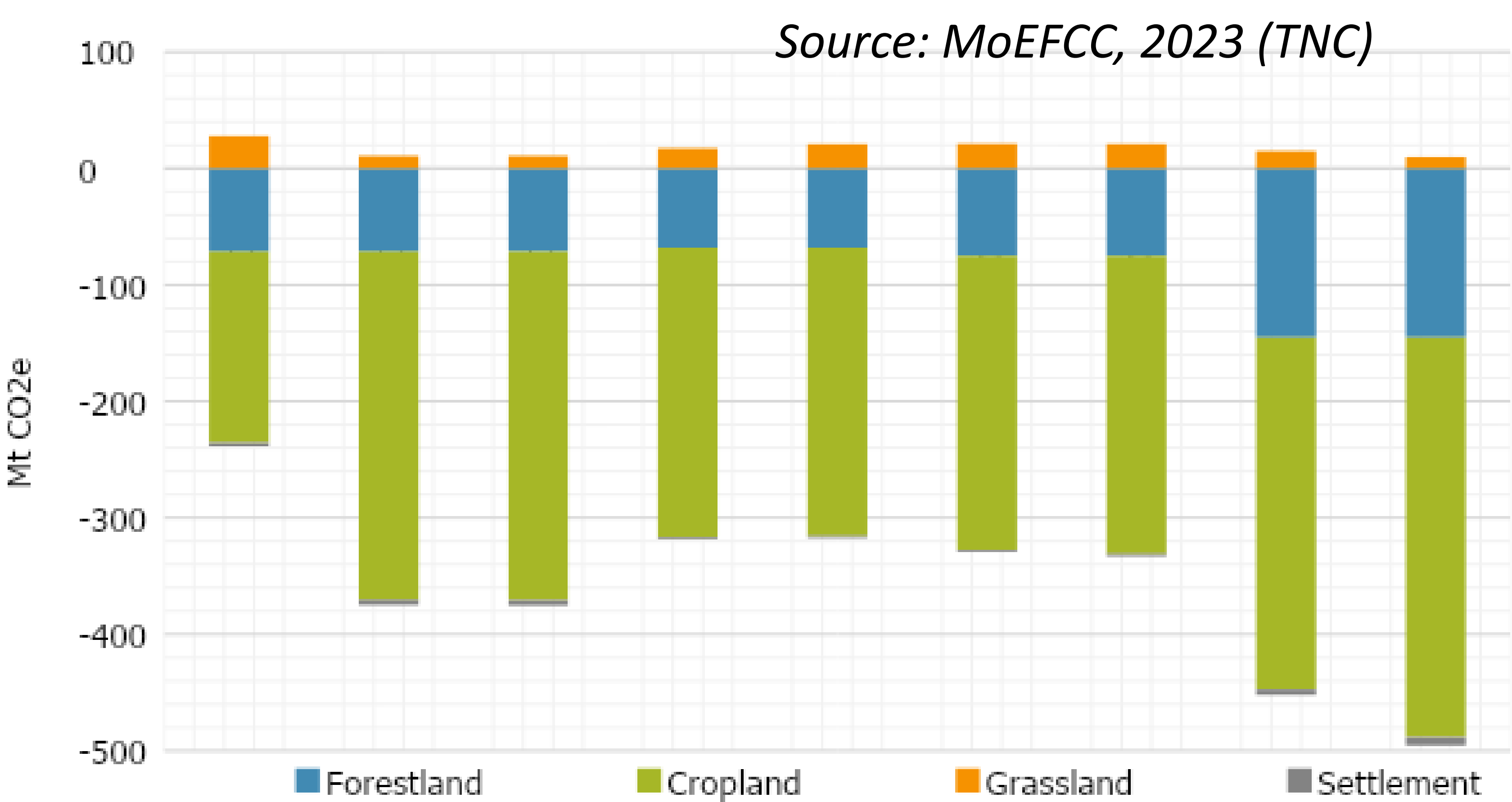
Key Features of India’s National GHG Inventory

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GHG emissions/removals (Mt CO₂e) per subcategory, 2011-2019



Indian Remote Sensing Datasets have been consistently used for estimating LULC assessments to support the GHG inventory

Methodological evolution of India’s NGHGI

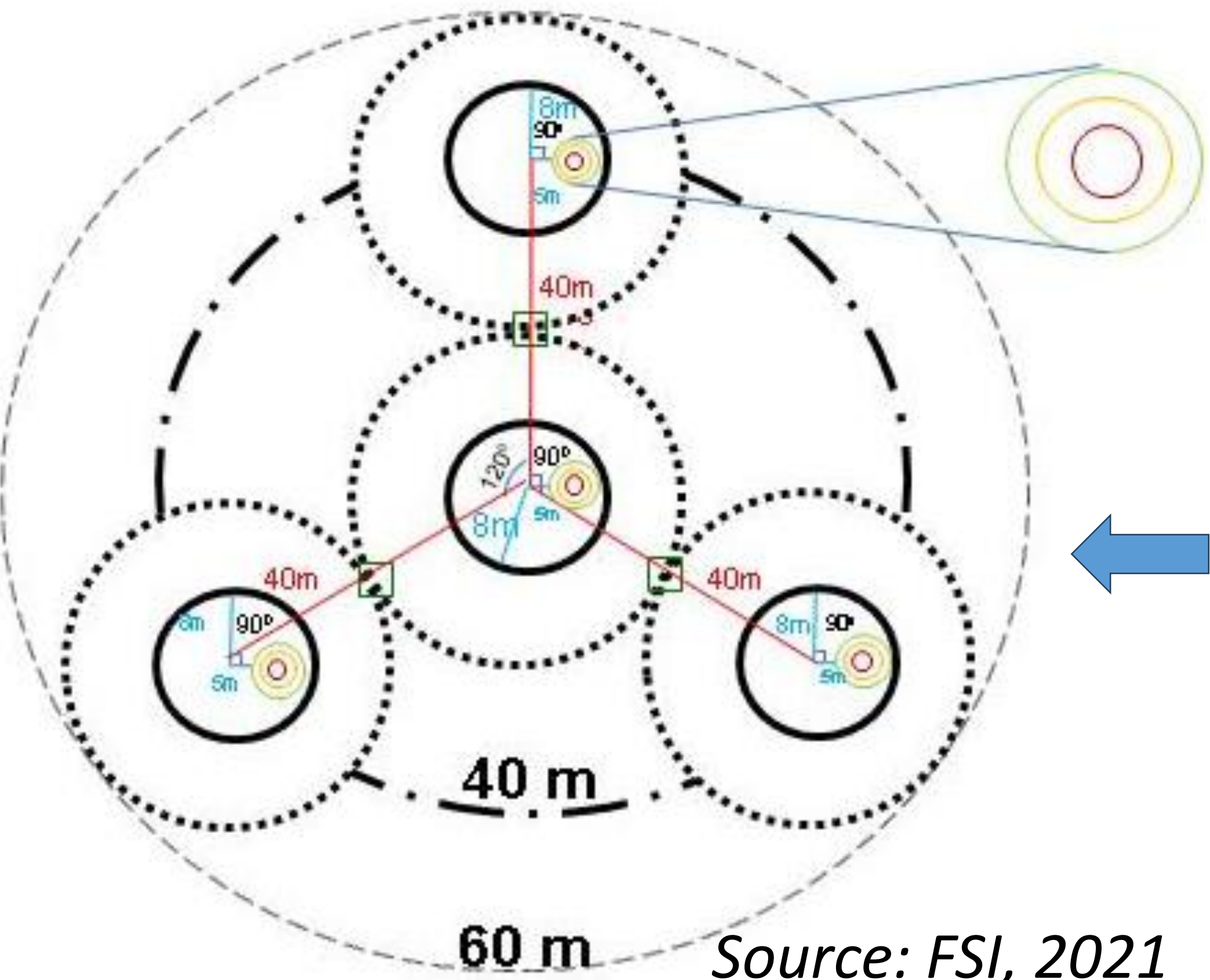
GHG Inventories submitted by India	Methodology adopted	Year of Inventory
Initial National Communication (INC)	IPCC, 1996, Revised Guidelines	1994
Second NC (SNC)	IPCC, GPG, 2003 GL	2000
BUR-1		2010
BUR-2	IPCC 2006 Guidelines	2014
BUR-3		2016
Third NC (TNC)		2019

Data flow and Institutions for India’s BTR-1

Land use change matrix			NRSC
Activity Data	Forestland		FSI
	Cropland, Grassland, Settlements & Other Land		NRSC
Emission Factor	CO ₂ emissions	Forestland	FSI
		Cropland, Grassland, Settlement - Biomass stock change (TOF)	
		Cropland, Grassland, Settlement - SOC	NBSS&LUP
	Non CO ₂ emissions	CH ₄ , N ₂ O emissions from forest fire	FSI
Emission Estimates			CSTEP, IISc
Inventory Compilation			
Uncertainty Estimation			BITS Pilani, Goa
QA/QC			CSTEP, IISc
Report Preparation			

Key Improvements Expected in BTR-1

- Soil Organic Carbon is identified as an important pool, substantial data improvement (**Emission Factor**) for this pool is expected with collection of additional data points from across the country by the national expert agency NBSS & LUP
- In terms of Activity data, Land use Change matrix is being generated for IPCC land categories by NRSC and FSI



NRSC-National Remote Sensing Centre; FSI – Forest Survey of India; NBSS&LUP – National Bureau of Soil Survey & Land use Planning; IISc – Indian Institute of Science

Key features of India’s National Forest Inventory (NFI) System

Forest Survey of India adopted a new grid-based NFI design in 2016, in which approximately 6,000 sample plots are laid annually in forest areas and about 10,000 plots are laid in Trees Outside Forest (TOF) areas.