Can restoration of the commons foster resilience?

Comparing COVID-19 induced livelihood impacts and coping strategies among villages targeted and not targeted by a largescale common land restoration program in three Indian states

Webinar FTA Covid 19 Rapid Research Response:
presentation of the results of FTA studies

6 September 2021 | 15.00-18.30 Rome Time | virtual, on Zoom

CIFOR

World Agroforestry

CGIAR RESEARCH PROGRAM ON Forests, Trees and Agroforestry

Global Landscapes Forum

RL Resilient Landscapes

Study undertaken in context of the larger impact study

- **Community-level intervention model spearheaded by Foundation for Ecological Security (FES) to restore degraded common land**

- **Promise of Commons (PoC) initiative, which aims to restore 30 million acres across eight states in India by 2023**
 (FES as of June 2020: 31,065 village institutions, 31 districts 8 states, 8.4M acres)

Impact study underway & then COVID hit: What to do?

- **Explore extent to which FES's work may have built greater resilience to large covariate shocks such as COVID-19 via interim mobile survey**

- **Undertake survey in villages where a) HH lists already have been compiled; and b) match up vis-à-vis FES's targeting criteria**

Before & After Village Matching by District
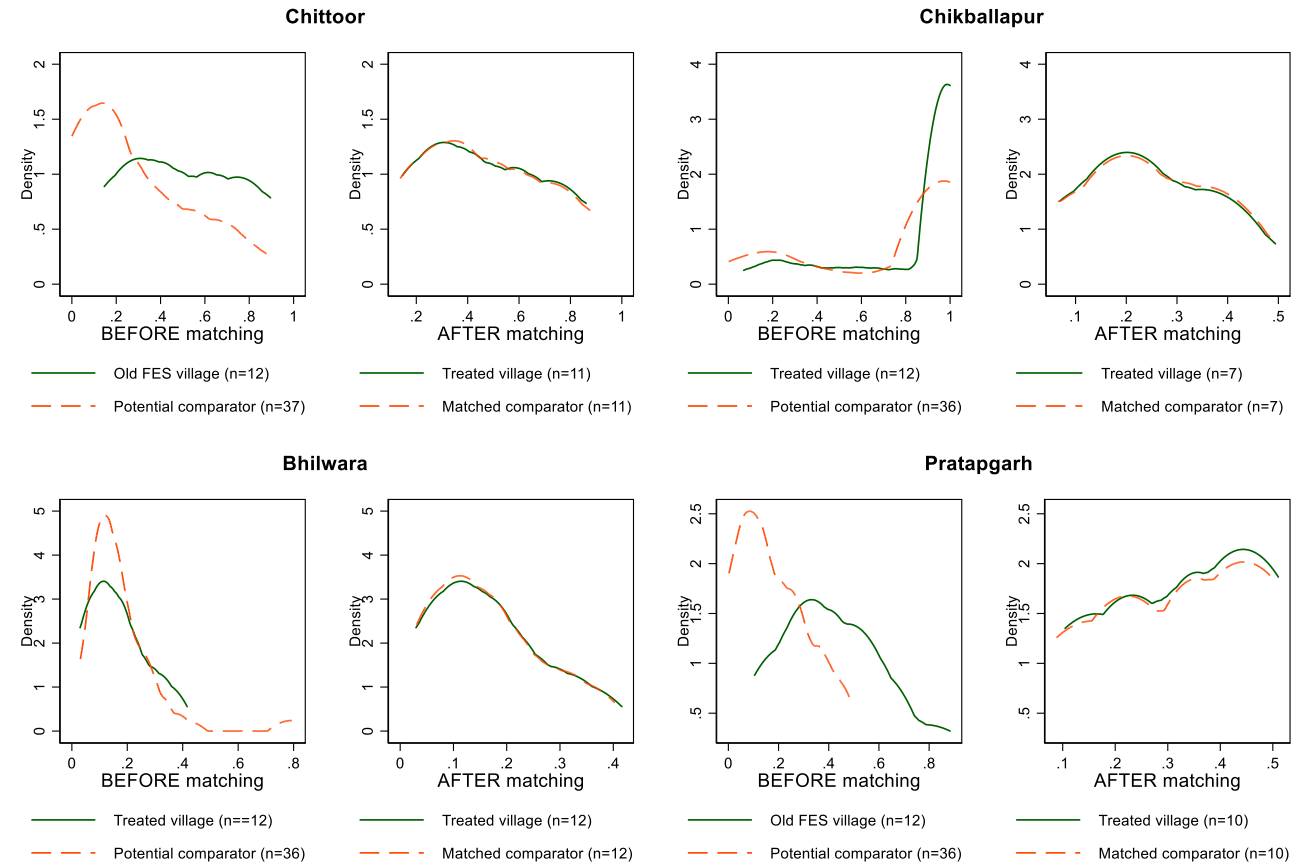
- **Mobile survey administered from Nov. to Dec. 2020**

- **In the end, N=772 with data collected from 40 "treated" (old) and 40 matched "untreated" (new) villages**

- **Overall, respondent & household characteristics are fairly well balanced across matched "treated" and "untreated" villages**

**Covariate Comparison: Respondents & Households in Matched Old & New Villages**

	Old vil. Mean	New vil. Mean	Difference	Std. dif.
Respondent, Female	0.504	0.488	0.015 (0.023)	0.020
Respondent, Married	0.898	0.907	-0.0095 (0.022)	-0.018
Respondent, Farmer	0.788	0.767	0.018 (0.037)	0.031
Respondent, Labouer	0.115	0.121	-0.0034 (0.029)	-0.013
HH has under 5 childern	0.403	0.396	0.0069 (0.036)	0.004
Elderly headed	0.047	0.045	0.0030 (0.014)	0.019
HH, Hindu	0.935	0.992	-0.056 (0.034)	-0.305
Scheduled, Tribe/Caste	0.495	0.510	-0.014 (0.071)	-0.070
Respondent age	39.136	39.345	-0.20 (0.97)	-0.024
HH size	5.378	5.299	0.075 (0.19)	0.041
No. children	1.728	1.699	0.022 (0.11)	0.008
No. aduts, prod. Age	2.915	2.906	0.011 (0.12)	0.025
Chi-2 test of joint orthogonality all variables [p-value]			11.65 [0.474]	
N (households)	**402**	**370**	**772**	
N (villages)	**40**	**40**	**80**	

Standard errors in parentheses and clustered at the village cluster level (matching unit); * p<0.1 ** p<0.05*** p<0.01;

sampling weights used to adjust for deviations from target sample size of 10 households in some villages;

district fixed effect used (strata used for matching)

- **Both households in treated (old) and new (untreated) hard hit by pandemic during India's first wave**

Self-reported changes in farm income compared to previous year
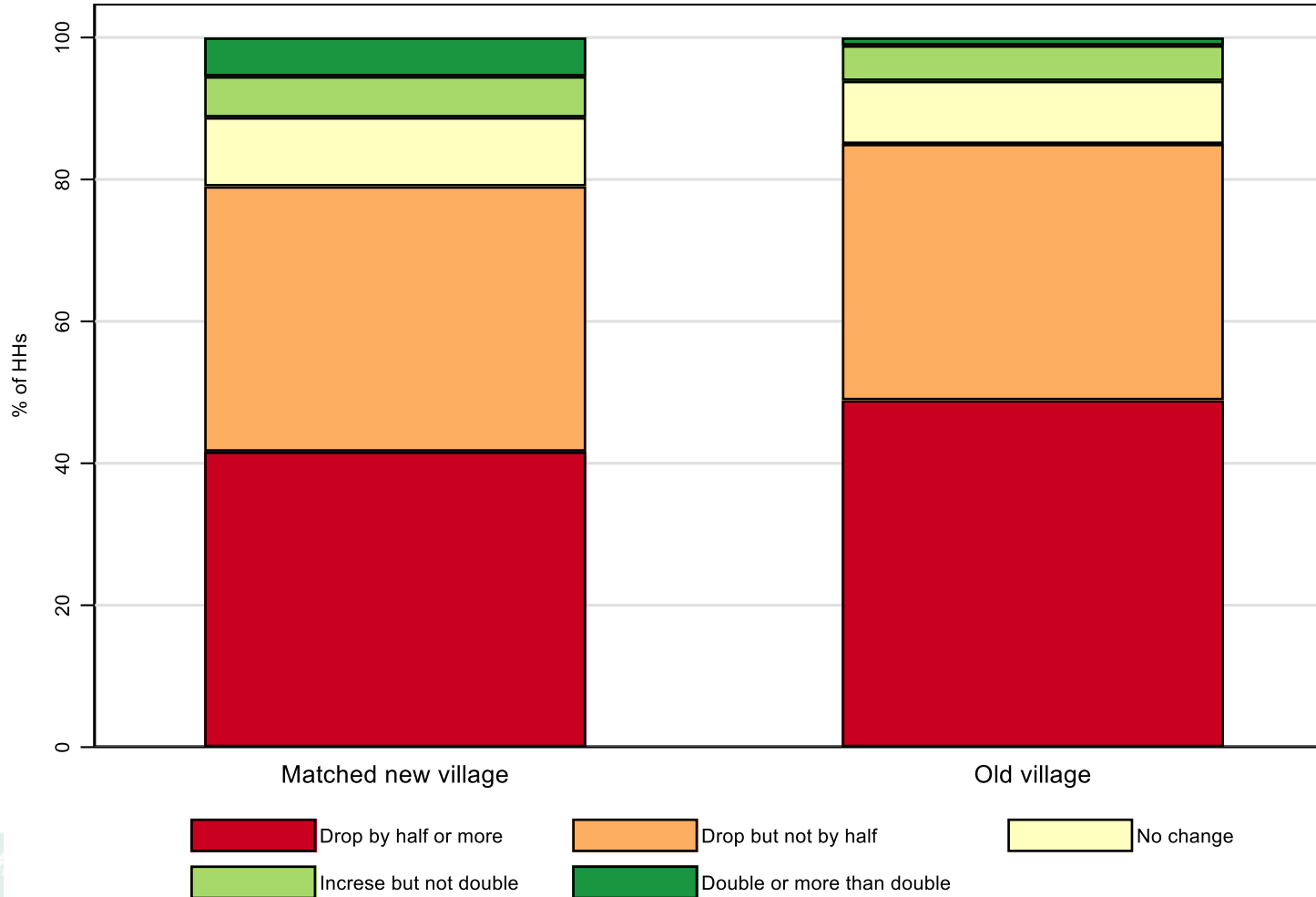
- **But perhaps households in treated villages more resilient to this huge covariate shock because:**

a) **Improved access to resources from commons to fall back on, e.g. tree foods, fodder & other resources for consumption or sale; or**

b) **Better access to government social safety net programs, due to FES' village institutional strengthening & linking efforts**

Negative coping strategies undertaken since beginning of 2020
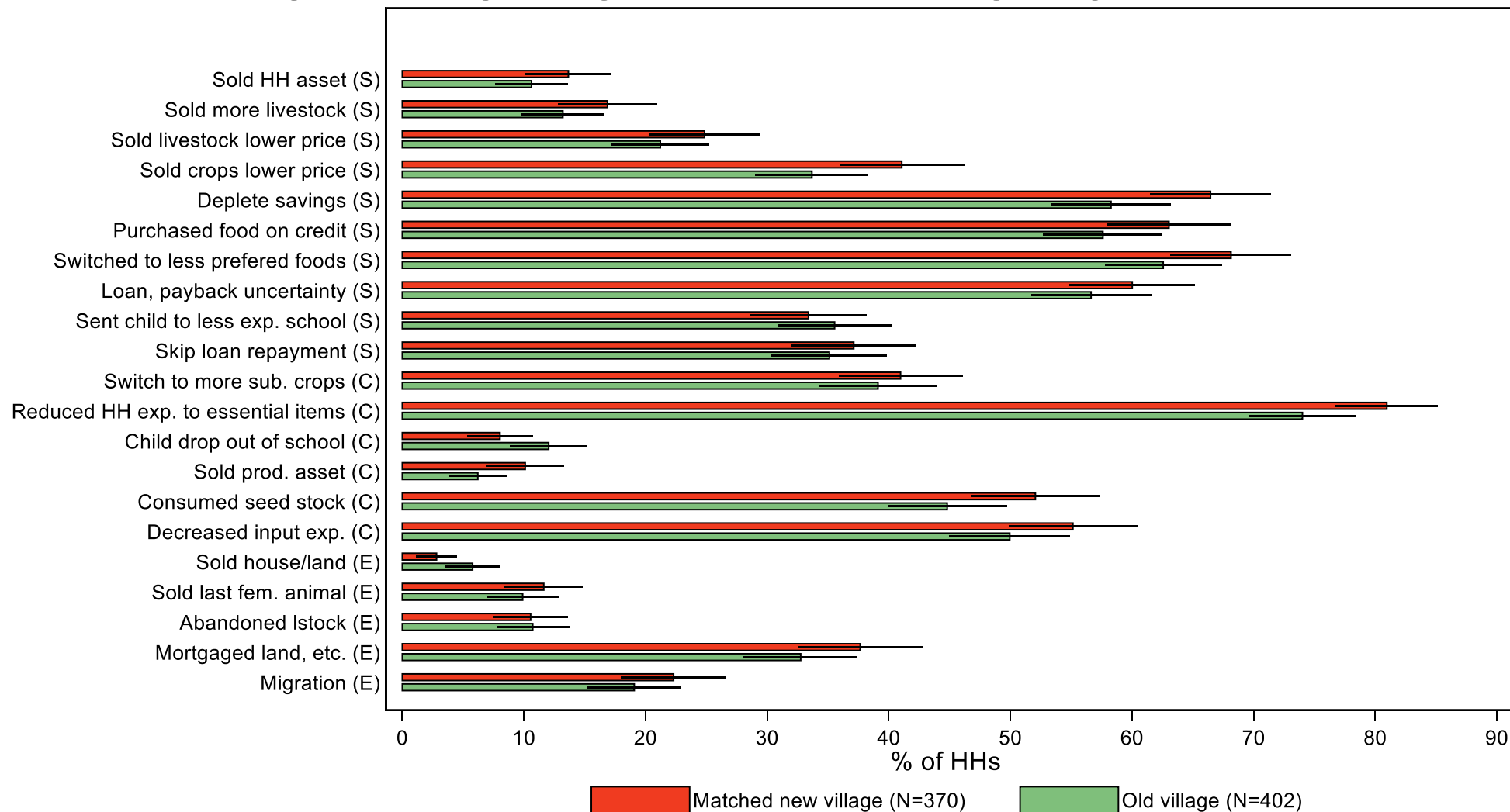
The Coping Strategies Index

A tool for rapid measurement of household food security and the impact of food aid programs in humanitarian emergencies

Field Methods Manual
Second Edition
January 2008

Strategy	
Sold HH asset (S)	
Sold more livestock (S)	
Sold livestock lower price (S)	
Sold crops lower price (S)	
Deplete savings (S)	
Purchased food on credit (S)	
Switched to less prefered foods (S)	
Loan, payback uncertainty (S)	
Sent child to less exp. school (S)	
Skip loan repayment (S)	
Switch to more sub. crops (C)	
Reduced HH exp. to essential items (C)	
Child drop out of school (C)	
Sold prod. asset (C)	
Consumed seed stock (C)	
Decreased input exp. (C)	
Sold house/land (E)	
Sold last fem. animal (E)	
Abandoned lstock (E)	
Mortgaged land, etc. (E)	
Migration (E)	

% of HHs

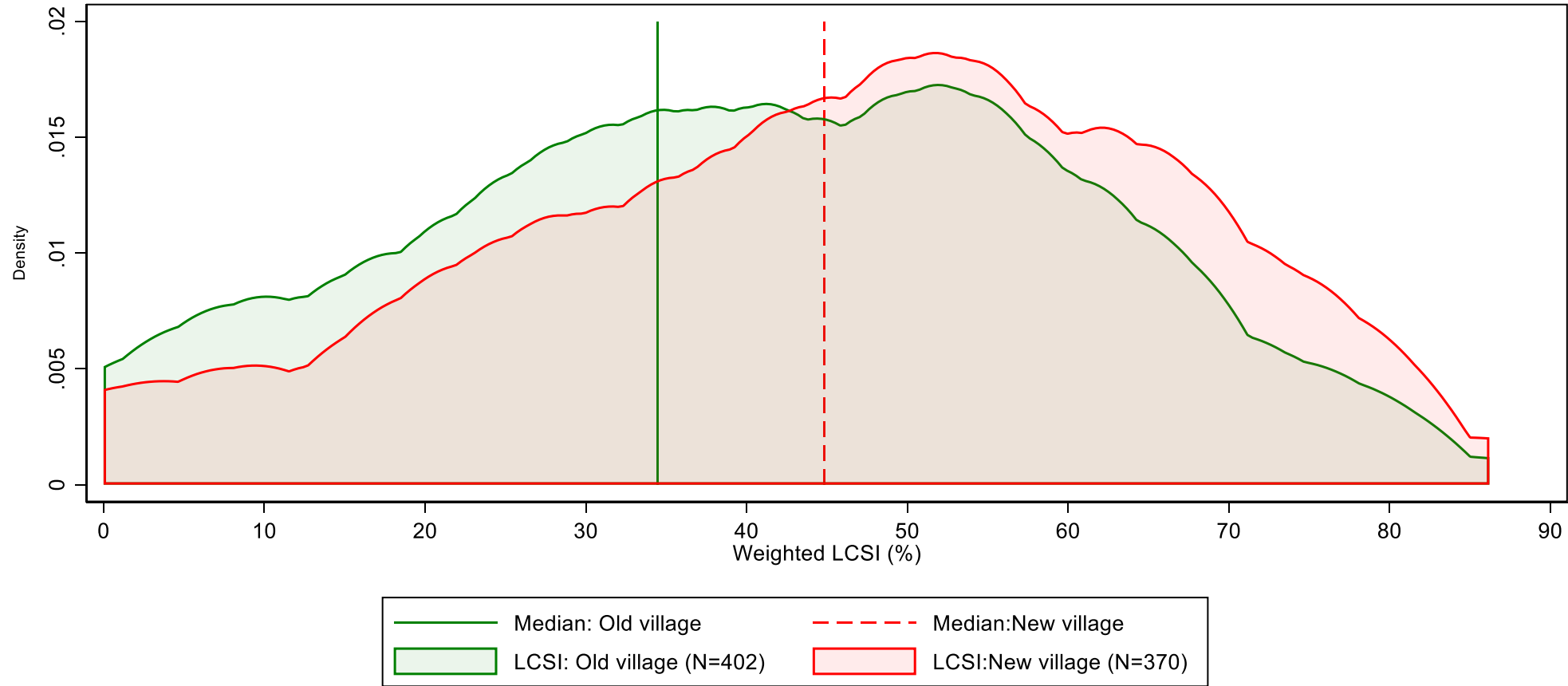Matched new village (N=370)   Old village (N=402)

With 95% confident intervals
Sampling weights used to adjust for deviations from target sample size of 10 households in some villages
S=Stress category; C=Crisis category; E=Emergency category

Density Plot for Weighted Livelihoods Coping Strategy Index (LCSI)

- **HHs in treated villages statistically less likely to engage in negative coping behaviours across all districts**

- **Challenge: Variation in data do not support either of our hypothesized mechanisms**

Median: Old village — Median:New village
LCSI: Old village (N=402) — LCSI:New village (N=370)

Sampling weights used to adjust for deviations from target sample size of 10 households in some villages