

12th Plan Recommendations on Food Security (SRI)

For National Consortium on SRI

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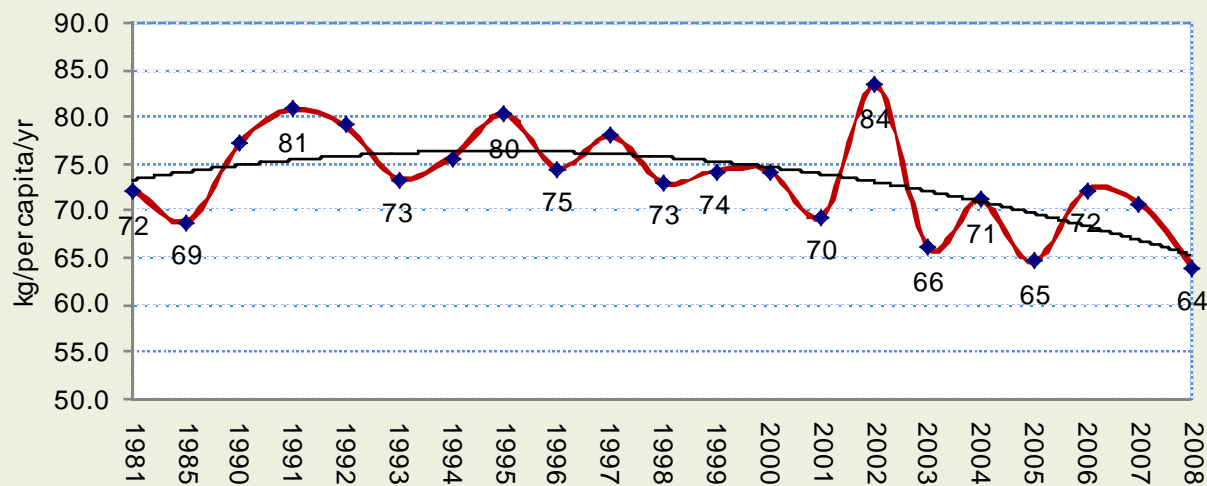
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- Beyond Bt and PPPs: CSOs leading an extension revolution
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Crisis in Agriculture and FOOD SECURITY – rice

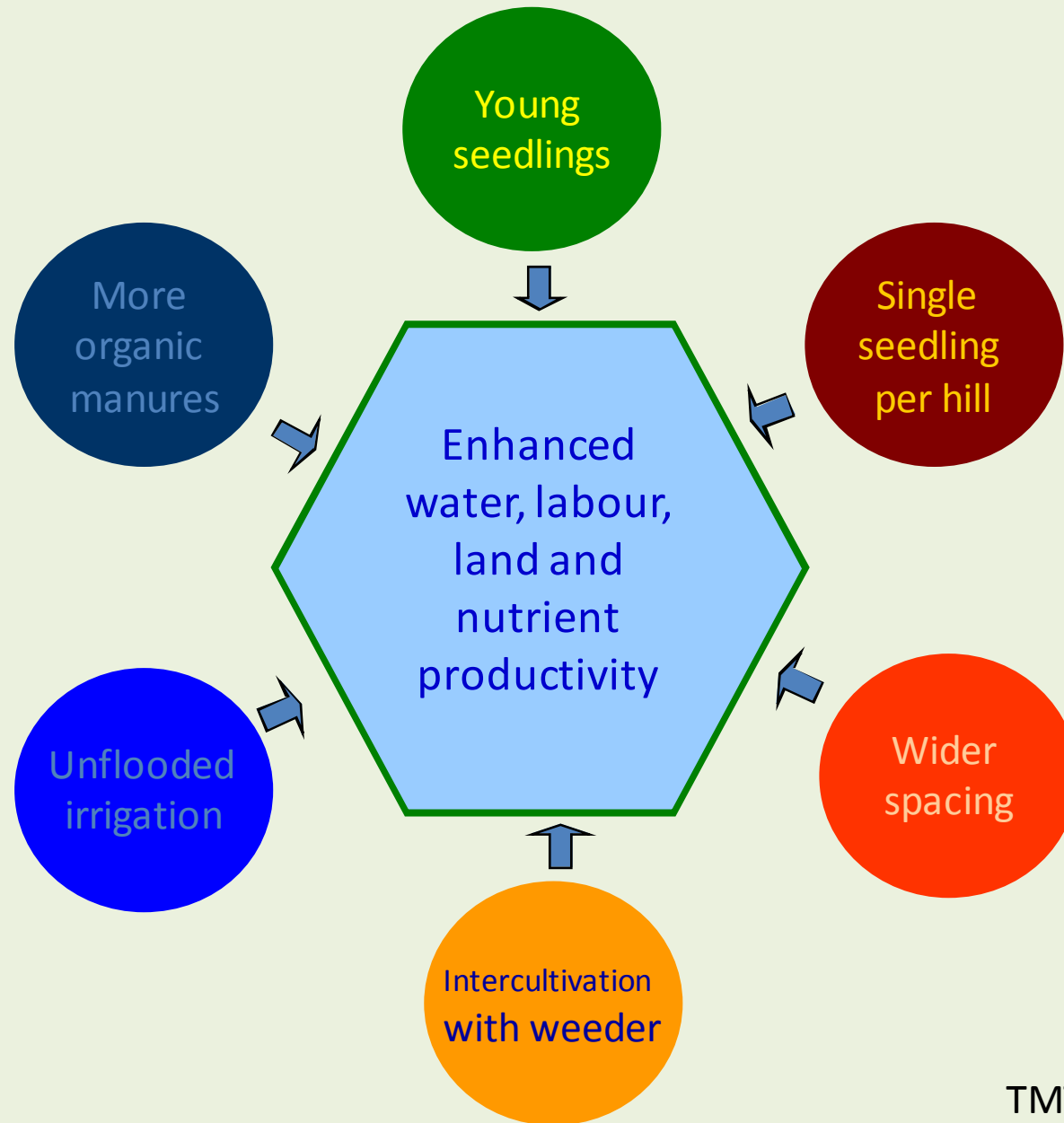
- Deceleration and stagnant production – NFSM and 11th plan targets unmet
- Declining impact of TFP affects livelihoods – groundwater & soil health crisis
- High water demand, poor WUE : 3-5,000 lt/ kg of rice. 34-43% of irrigation water.

Trend in Per capita availability of Rice



- Global Rice prices doubled 2001-2007, more rapidly last year
- Fertilizer Subsidy Bill to GOI Rs 72000 crores in 2008-09
- Farmer suicides even in paddy – High vulnerability due to drought and unseasonal rains

Scientific Benefits: SRI HEXAGON.. A way out



Select SRI Actors in India

CSOs	Research	Govt. Agencies	Other
PRADAN	DRR	NFSM	WUR
PSI	CRRI	IAMWARM (World Bank)	CIIFAD
CWS	DWD	NABARD	IDS
SPWD	TNAU	MRPLP, Aajevika	
AKRSP	NCAP - ICAR		Private
AME Foundation		Donors	Usha Martin
AP SRI consortium	SAUs	SDTT	weeder manu
Banglar SRI		WWF	
Orissa learning alliance		AKRSP	

Weak links – research agencies, Min of agriculture, ICAR... large capacity, marginal presence or interest, old thinking and GR peg in a AER sphere

Exceptions in TN and Tripura... recently Orissa and AP

Beyond Bt and hybrid maize: Surprising spread of SRI

- 100,000 farmers and 20,000ha in 2010 through CSOs
- **More with less: High investment efficiency**
 - SDTT phase 1 investment - 12 crores, outreach 65,000 farmers, 7500ha 2009-2010,
 - Phase 2 – 24 crores, 59,300 farmers (Kharif 2010), 19753 ha
 - PRADAN 2003 4 farmers, 2010 eight states, 39,614 farmers 3940ha
 - PSI 2006 40 farmers, 13,000 in 2009
- Strong small farmer focus in rainfed and tribal areas

	2008-09	2009-10	2010-11
Pragati			
Small	195	601	1575
Marginal	109	297	878
Medium	20	126	295
Total	324	1024	2748

Civil society and SRI...

- Higher organic content of SRI – reduced demands on agrochemicals, saving to exchequer not rewarded
- High participation of women and CBOs
- Community based extension systems – VRPs, CRPs, MTs, local youth, PRI officials etc.
- Inspired by CSOs in SRI NABARD invested 24 crores on SRI.
 - 2009-10 in W Bengal, 2400 farmers in 240ha, 2010-11 estimated 10,000 farmers in 1000 ha.
- **Most scale achieved by government agencies in TN and Tripura (over 500,000 HH... And hectares...)**

SRI in Other Crops: Innovation spillover



SRI in Wheat – 25,000 farmers



Rajma – 553 farmers



Sugar cane under SSI



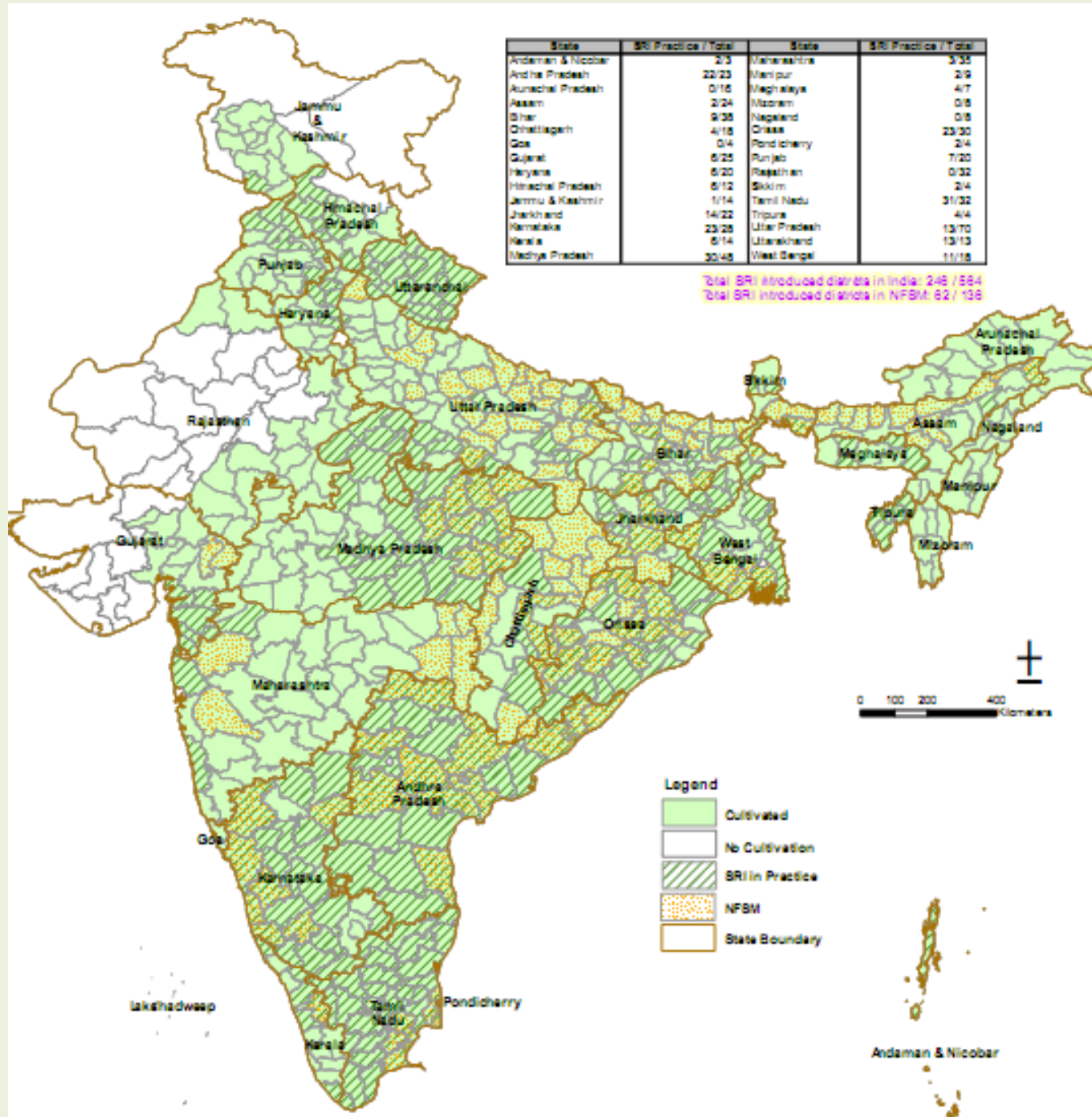
Finger Millet 473 farmers



Maize 64 farmers



Soyabean 34 farmers



SRI map
 draft aug
 2010
 ICRISAT

45-50% of
 districts
 already doing
 SRI in GRER
 Why inflict bad
 policies in
 rainfed areas?

Indicators of Investment Efficacy

Rice Production	87.5 mt in 2009-10
Rice Area:	44 mh, 60% rainfed
Rice Productivity Low productivity <2 tons /ha High productivity (>2.5 t/ha)	2011 kg/ha (during 10 th FYP) 345/563 districts in the country 115 districts
SRI yield potential	4-12 ton/ha
NFSM Investment on SRI	Rs.1125 crores (2007-08 to 2010)
SDTT Investment (incl salary etc.)	Rs.10.94 crores (roughly Rs.1843/farmer)
SRI Under SDTT Under NFSM	65, 000 farmers No estimates, 3,09,740 conoweeders distributed, 20000 demos <i>Big farmer, assured irrigation focus...</i>

“Lack of strong benchmarking data and a common M & E system across States will reduce feedback on these programmes to expenditure statements and physical inventories consumed.” - 11th Plan MTA

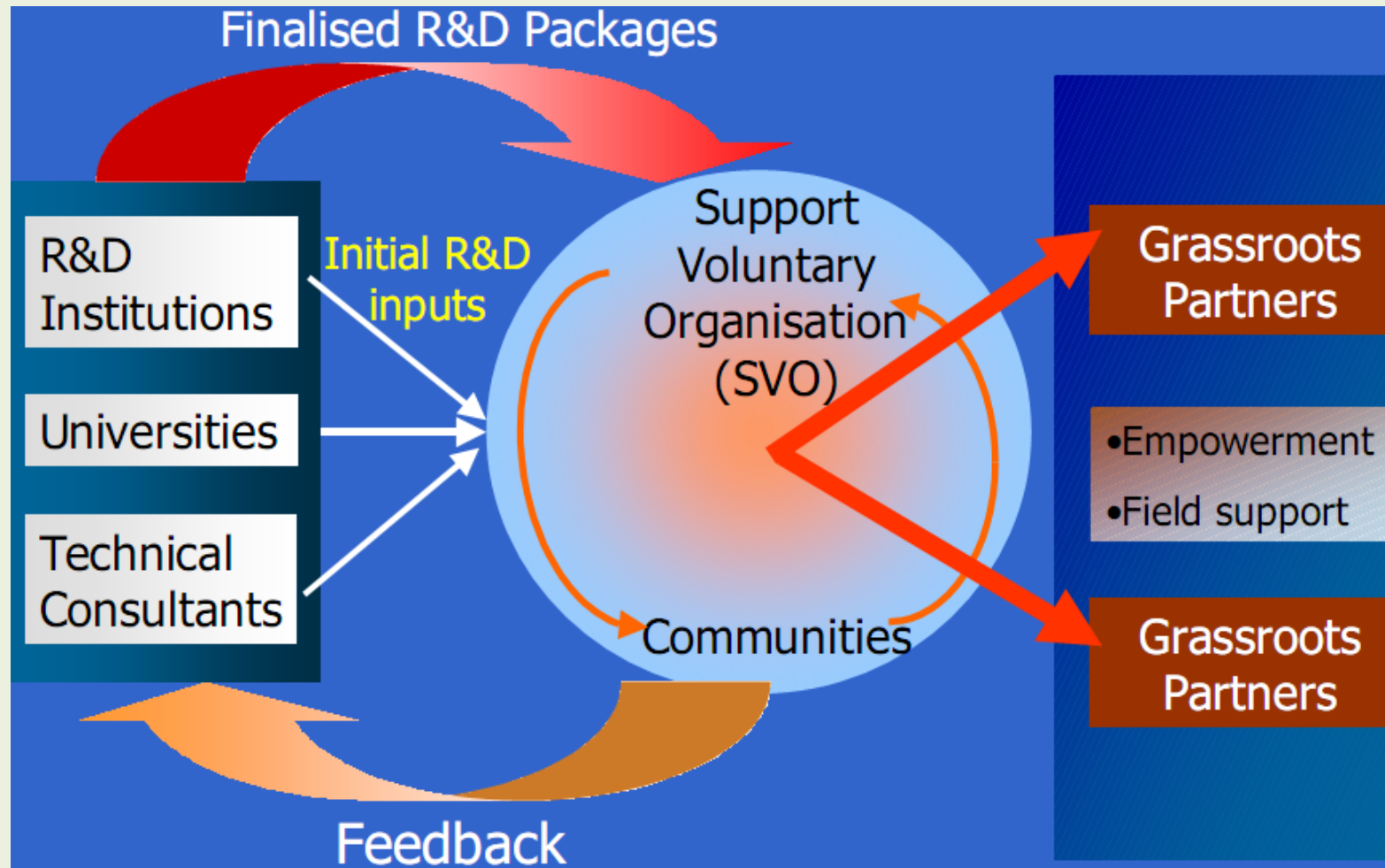
Strategy and approach in NFSM and APDAI model

<i>Parameter</i>	<i>NFSM</i>	<i>Based on WASSAN's experience</i>
Approach	Scattered demonstrations (0.4ha per 100ha)	Block or contiguous area
Vehicles	Hybrid Rice and SRI	SRI
Prime movers	Agri Ext workers & Scientific establishment	Farmer led
Packaged / subsidies	Input centric, Going to companies and manufacturers	Confidence & skill building Direct cash subsidies to farmers or labor subsidies
Support	Correcting the micro nutrients deficiencies	Correcting the soil health
Equipment	Centrally supplied – one type for all areas	De centralized – locally suitable Custom hiring center

National Consortium Vision statement

To enable India to provide global/international leadership on agroecological innovations that reduce agrarian distress by demonstrating enhanced farmer incomes through sustainable eco-friendly and resource conserving (and enhancing) systems of crop intensification through novel institutional mechanisms that build on farmers knowledge, enhance local capacities with active participation of civil society, researchers and government agencies.

If 11th Plan was path breaking in Watersheds can 12th do this to Min of Agriculture and rainfed areas?



It took 5-6 meetings of CSOs to convince NFSM to invest in SRI through CSOs.. Result Rs 8 crores.. Why can't they learn faster at least in 12th Plan...

Objectives of consortium..

Synergising experiences, expertise and other resources on SRI built over time needed for accelerated SRI promotion for sustainable rural livelihood security.

Currently led by PRADAN and IARI with SDTT and partners, state level alliances, members of research organisations, NABARD...

NRLM, NFSM, Planning commission to facilitate and co-create the consortium and lead the agro-ecological revolution in the 12th Plan.

Recommendations for 12th FYP

Research Agencies

- All India Coordinated Research Programme on SRI
- Science of SRI – SRI physiology, resource conserving systems, soil health and biota, enhanced root systems, irrigation methods.
- To work pro-actively on farmers innovations, indigenous varieties, design of weeders, developing POPs for organic SRI,
- Participate in SRI field days and evaluation
- Robust socio-techno-economic evaluations on SRI

Technological Practices

- Farm Pond scheme / Community managed aquifer recharge
- Make SRI practices more flexible/encourage local innovations: DSR
- Open sourcing of design of implements - Train local artisans on weeding manufacturer.

SRI and 12th FYP

Institutional practices

- Strengthen newer collaborative institutions such as the already formed state level alliances
- Actively support the national consortium
- Change delivery of subsidies – provide for custom hiring, labour for weeding.
- Support for shift to organic and resource conserving systems

Policy Imperatives

- Shift from input centred to knowledge centred strategies
- Invest in the community based extension systems & recognise role of women
- Invest in capacity building at all levels in continuum, including gender
- Awareness among the stakeholders at top to bottom level
- Innovative Incentive structure and adequate and directed investments both for NFSM and beyond
- NFSM type programme to continue for wider impact to rural society

Thank you

JAI SRI – Joint Action Initiative on SRI



Tribal farmer in Jharkhand state of India, with a 'rainfed' SRI plant with 65 tillers (110-day variety)