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Farmer-Managed Seed Systems & Community Seed Banks: From coexistence to transformation

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E-LEARNING SERIES

Sustainable Forest Management Impact Program on
DRYLAND SUSTAINABLE LANDSCAPES

FMSS Why this matters

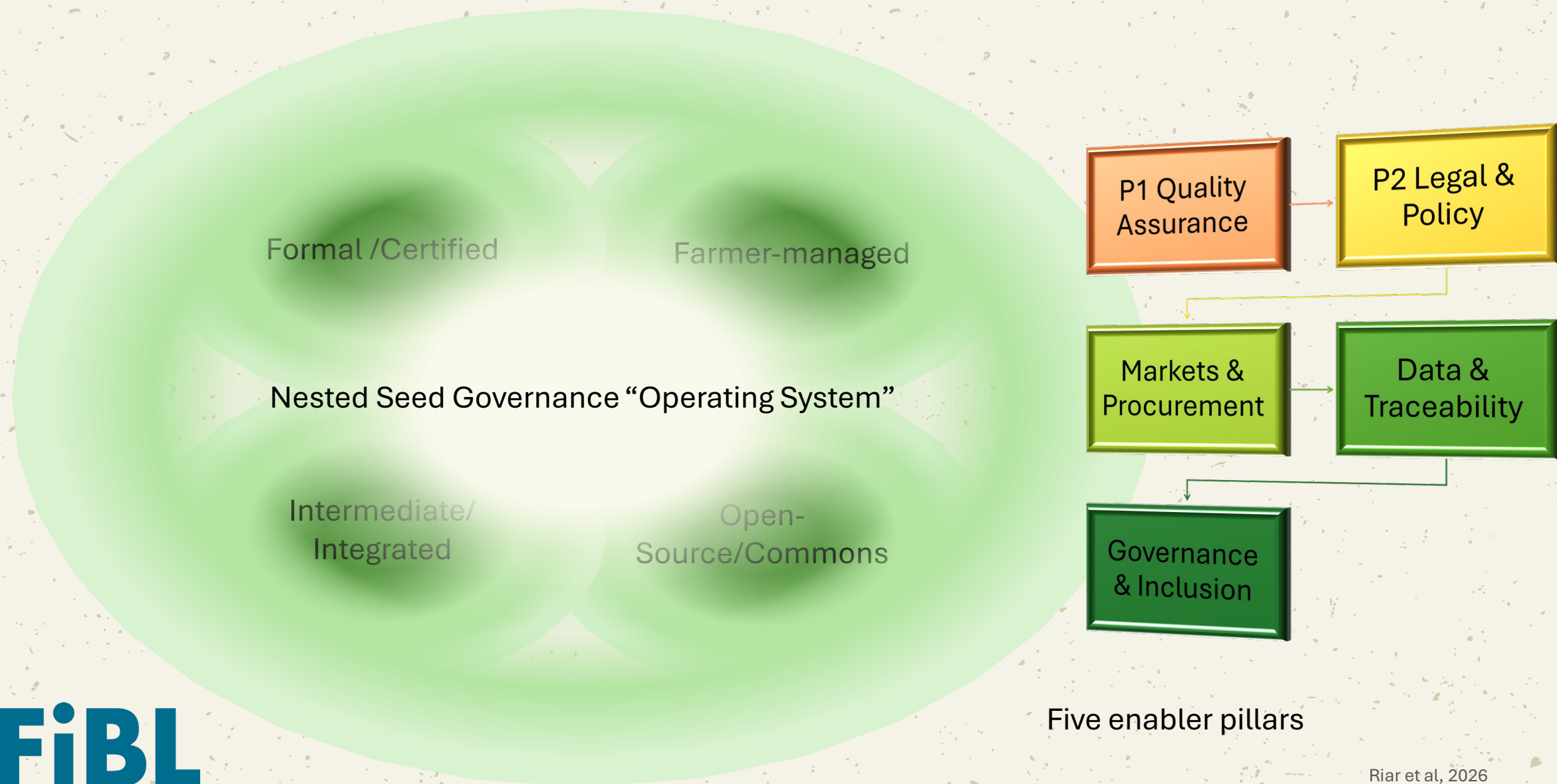
Most smallholders
source seed
outside the
certified channel

NUS/landraces →
nutrition,
resilience,
Agrobiodiversity

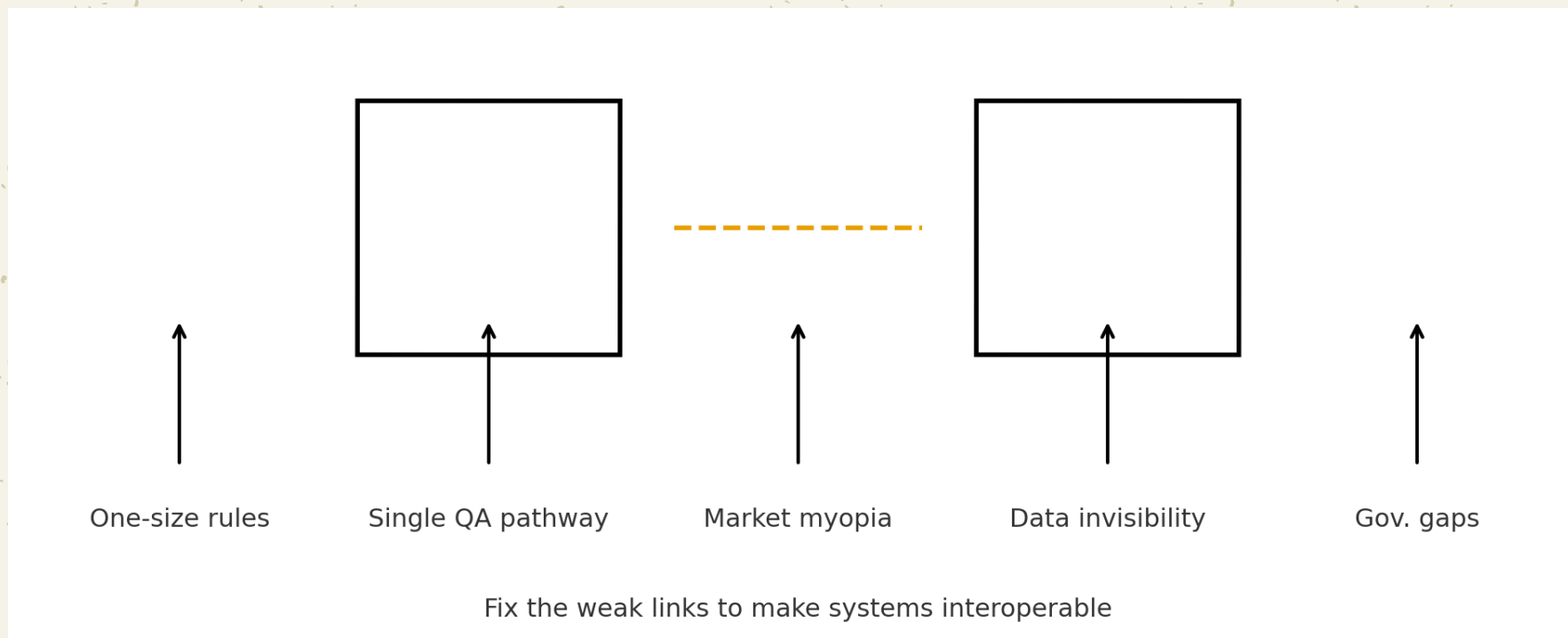
Binary formal vs.
farmer debates
= lost performance

Adaptive varieties
for low input
farming conditions
= Resilience

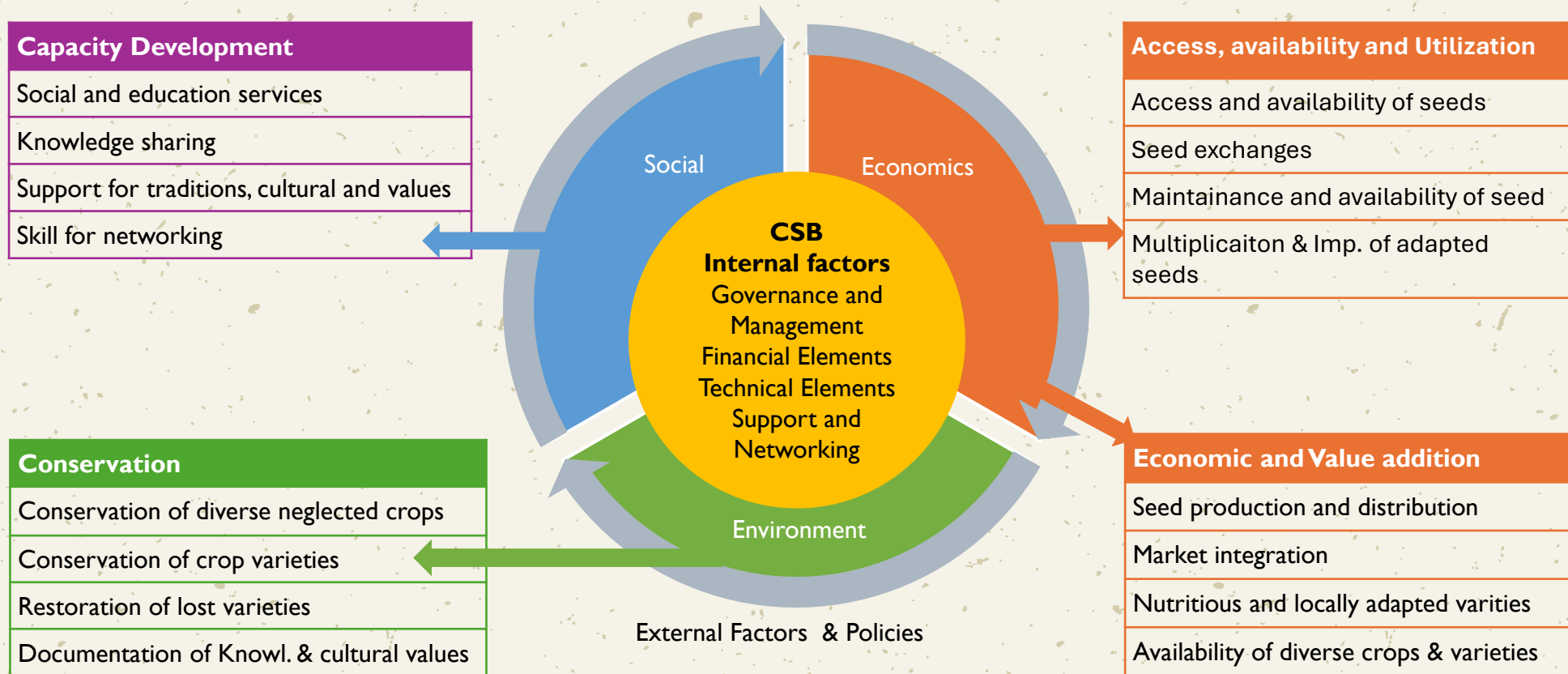
The seed systems reality and new framework



Where it breaks



Community Seed Banks



Community Seed Banks

Case	1	2	3	4	5	6	7	8
Region	West Bengal	West Bengal	Orisha	Orisha	Orisha	Karnataka	Karnataka	Karnataka
Year of establishment	2012	2016 (2010 start of indigenous seeds saving)	2012 (2001 start of indigenous seeds saving)	2019 (2016 farmer survey and farmers training)	2015 FPC (2002 start of indigenous seeds saving)	2020 (2018 start of seed saving trainings)	2019 (2023 new formation)	2022
Leadership (Number of members)	Core committee (15)	Founder of CSB	Leadership committee (5)	Coordinator of seed bank	Seed bank manager	Core committee (10)	Core committee (10)	Core committee (10)
Technical committee (Number of members)	MCG (11 groups at village level seed banks)	Core committee (11)	Core committee (21)	Seed bank committee (-)	Core committee (19)	SHGs (14) Village committee (25)	SHGs (22) Village committee	SHGs (5 groups at village level) Village committee
Number of members (Villages/ households)	1500 (11/750)	350 (-/350)	165 (-/)	250 (16/42)	2000 (22/-)	250 (22/-)	120 (10/-)	100 (5/-)
Number of collection	33	136	1200	200	400	150	100	64
Crops	Vegetables (9 NUS), pulses, Rice paddy	Rice paddy, vegetables	Rice paddy (mainly), vegetables, oil seeds, millets	Rice paddy	Rice paddy (200), indigenous varieties (200)	Millets (mainly), pulses, maize, cereals	Millets (mainly), pulses	Ragi, fox tail, horse gram, black gram, bottle guard, Amaranthus (NUS)
Seed policy	Voluntary basis	Voluntary basis	Voluntary basis	At least the same amount	20kg: 25kg	1:2 Agreement card	1:2 Agreement card	1:2 Agreement card

Community Seed Banks

Case	1	2	3	4	5	6	7	8
Governance and management	3	2	2	3	3	2	2	2
Technical elements	2	2	3	2	3	1	1	1
Support and Network	3	2	2	3	3	2	2	2
Financial elements	2	2	3	1	2	2	0	1



Community Seed Banks: Key Recommendations

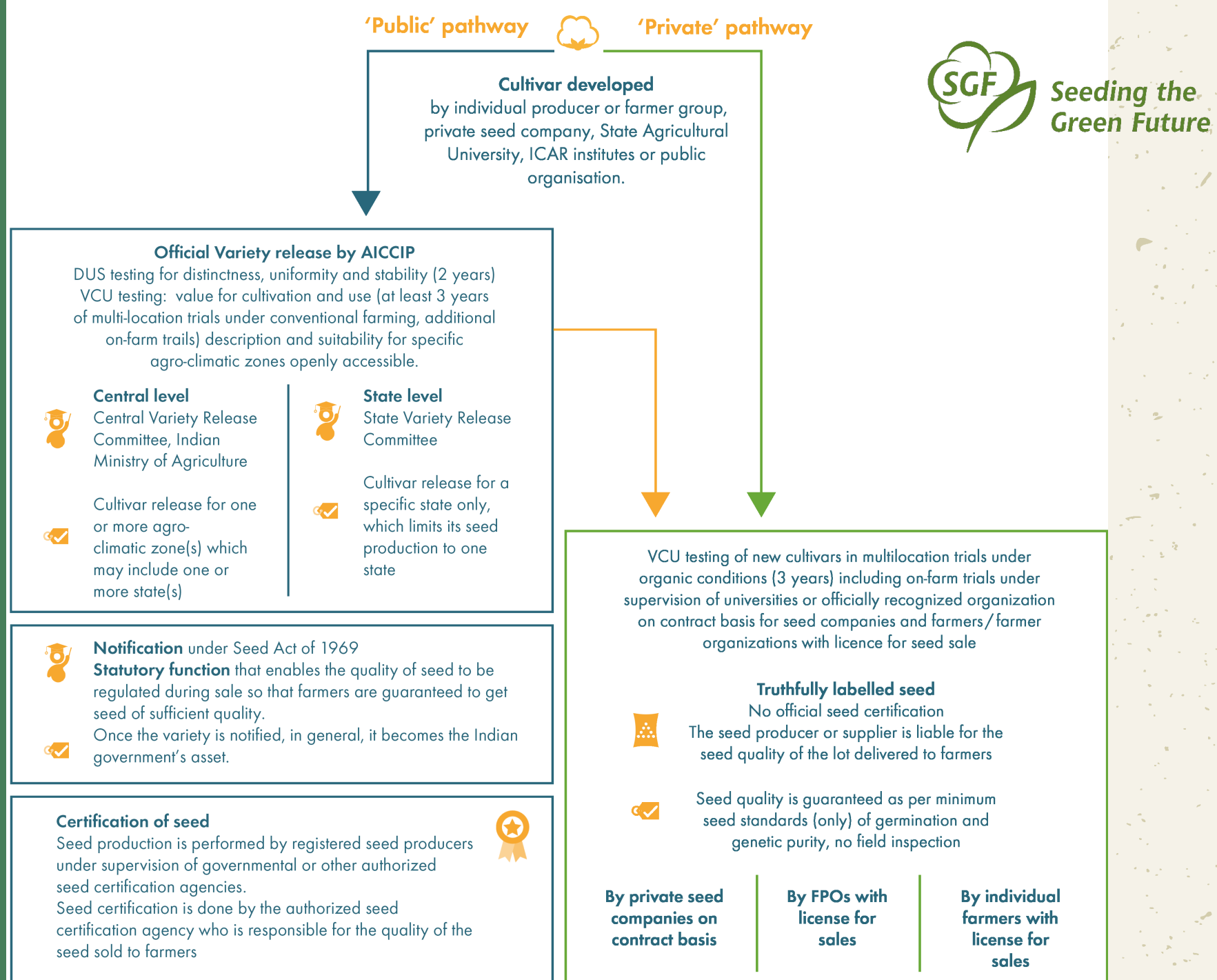


1. Income-generating activities need to be developed for viable business models.
2. Select suitable varieties adapted to environmental conditions and farmers needs through surveys and participative variety selection.
3. Achieve and maintain high-quality seeds through adequate seed management, infrastructure, and seed loan policy.
4. Establish a governance system that allows for equal participation in decision-making and access to the CSB by addressing social barriers and gender roles.



Policy pathways in practice 1

Truthfully labelled seed



Policy pathways in practice 2

India's Protection of Plant
Varieties and Farmers' Rights
(PPV&FR) Act, 2001

Purpose & key definitions

Why enacted: TRIPS-compliant, **sui generis** protection of plant varieties in India; balances **breeders'** rights and **farmers'** rights.

Objectives: (i) Recognition of farmers' rights; (ii) Protect breeders' rights; (iii) Promote **agrobiodiversity**.

Who is a "farmer" (Sec. 2(k)): cultivates directly/through supervision; and/or **conserves/preserves** wild species or traditional varieties.

Key categories:

Farmers' Variety (FV): traditionally cultivated/evolved; or wild relative/landrace known to farmers.

Extant Variety: notified under Seeds Act; FV; commonly known; or in public domain.

EDV (Essentially Derived Variety): predominantly derived; clearly distinguishable; conforms in **essential characteristics** except for derived differences.

Policy pathways in practice 2

India's Protection of Plant
Varieties and Farmers' Rights
(PPV&FR) Act, 2001

What the Act enables: rights & registration

Farmers' rights preserved: save, use, sow, resow, **exchange, share or sell** produce/seed—**not under a brand name.**

Registrable varieties: initial/extant/FV of notified genera/species that meet **DUS + novelty** (time limits on prior sales). Applicants can be **breeder, successor/assignee, farmer/group/community, university/public institute.**

DUS/Novelty tests: distinct by ≥ 1 essential trait; sufficiently uniform; stable on repeated propagation; novelty per India/foreign sale windows.

Researchers' rights: use of protected variety for **experiment/research** and for **creating new varieties.**

Safeguards & terms: ban on **GURTs/terminator**; protection terms—**15y** (most crops), **18y** (trees/vines); **compulsory licence** possible after **3 years** to ensure access; **National Register** maintained.

Policy pathways in practice 2

India's Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001

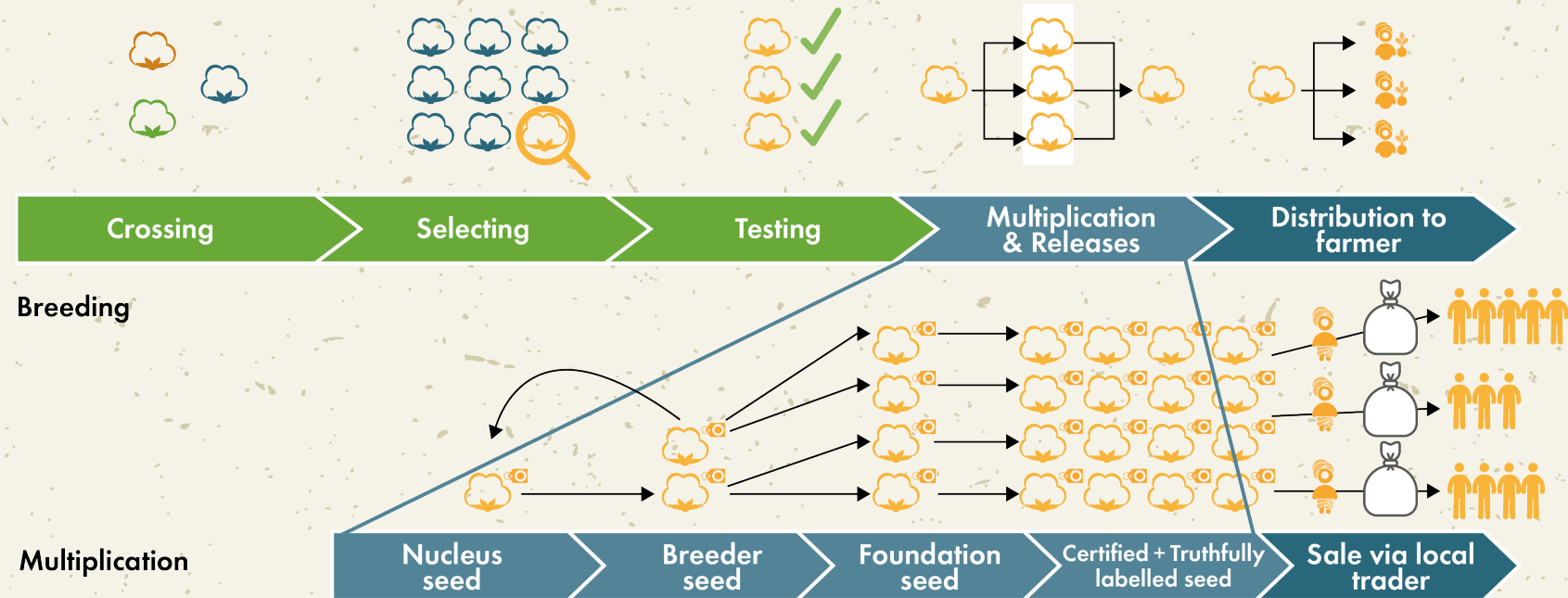
Institutions, impact & implementation tips

- **Governance:** **PPV&FR Authority** (exec. body; **National Register**); **Appellate Tribunal** for disputes; **15-member** Authority incl. reps from farmers, tribal, women, seed industry, ag university, and states.
- **Observed impacts (India):** revival of indigenous crops; **diet diversification**; resilience to pests/climate; cultural heritage preserved; empowerment via recognition/benefit-sharing.
- **Practical recommendations:** engage stakeholders; **educate** on FV registration & seed-saving; strengthen **research/extension**; support **community seed banks**; improve **benefit-sharing**; foster **PPPs** for marketing/value-addition; integrate FV into **seed & climate** policies; empower **women** custodians.

Limitation: PPV&FR Act is an IP/protection law, not a production or funding scheme. It doesn't provide direct support or finance for maintenance breeding or public sector.

Policy pathways in practice

Participatory Plant Breeding Integration into the Certified Seed System



Policy pathways in practice

Participatory Plant Breeding Integration into the Certified Seed System

- Two first-ever non-GM cotton varieties for organic agriculture on September 8, 2022
- The new varieties have been officially released by the State Seed Sub Committee of Madhya Pradesh
- The released varieties are high-yielding and meet industrial fibre quality requirements.



The new organic Desi Cotton variety "RVJK-SGF-1"



The new organic American Cotton variety "RVJK-SGF-2"

Conclusions

1. CSBs are the backbone: when backed with governance, storage, and light QA, CSBs deliver faster local seed access, conserve diversity, and buffer shocks.
2. Policies like PPV&FR enables FMSS legally: it protects breeders and preserves farmers' rights (save/use/exchange/sell unbranded) and offers routes for farmer-variety recognition — contextualize it proactively.
3. PPB is the bridge: participatory breeding/on-farm selection connects farmer priorities to variety improvement; paired with TL/QDS it gets legal seed to farmers now while releases progress.

Make FMSS visible, legal, investable

