The Food and Land Use Coalition
India Country Platform

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How to Design Scalable and Sustainable Programmes

Framework for India's Sustainable Agriculture Initiatives

Nandini Agarwal, Apoorve Khandelwal, and Aradhna Wal

Report | December 2023

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The **Food and Land Use Coalition** (FOLU) is a global community of country platforms, partner organizations and Ambassadors working to advance sustainability, equity and resilience in food and land use systems. Created in 2017, FOLU supports diversity, embraces disruptive thinking and forges consensus through an evidence-based approach. The coalition empowers farmers, policymakers, businesses, investors and civil society to unlock collective action at scale. The FOLU Coalition in India includes the Council on Energy, Environment and Water (CEEW), Revitalising Rainfed Agriculture Network (RRAN), The Energy and Resources Institute (TERI) and WRI India; and with a detailed integrated country modelling effort, led by the Indian Institute of Management Ahmedabad (IIM-A) with support from International Crop Research Institute for the Semi-arid and Tropics (ICRISAT).

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Image: PRADAN

About CEEW

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The Council's illustrious Board comprises Mr Jamshyd Godrej (Chairperson), Dr Anil Kakodkar, Mr S. Ramadorai, Mr Montek Singh Ahluwalia, Dr Naushad Forbes, and Dr Janmejaya Sinha. The 250-strong executive team is led by Dr Arunabha Ghosh. **CEEW was certified a Great Place To Work® in 2020 and 2021**. It has also repeatedly featured among the world's best managed and independent think tanks.

In over 13 years of operations, The Council has engaged in over 450 research projects, published 380+ peer-reviewed books, policy reports and papers, created 190+ databases or improved access to data, advised governments around the world 1400+ times, promoted bilateral and multilateral initiatives on 130+ occasions, and organised 540 seminars and conferences. In July 2019, Minister Dharmendra Pradhan and Dr Fatih Birol (IEA) launched the CEEW Centre for Energy Finance. In August 2020, Powering Livelihoods — a CEEW and Villgro initiative for rural start-ups — was launched by Minister Piyush Goyal, Dr Rajiv Kumar (then NITI Aayog), and H.E. Ms Damilola Ogunbiyi (SEforAll).

The Council's major contributions include: Informing India's net-zero goals; work for the PMO on accelerated targets for renewables, power sector reforms, environmental clearances, *Swachh Bharat*; pathbreaking work for India's G20 presidency, the Paris Agreement, the HFC deal, the aviation emissions agreement, and international climate technology cooperation; the first independent evaluation of the *National Solar Mission*; India's first report on global governance, submitted to the National Security Advisor; support to the National Green Hydrogen and Green Steel Missions; the 584-page *National Water Resources Framework Study* for India's 12th Five Year Plan; irrigation reform for Bihar; the birth of the Clean Energy Access Network; the concept and strategy for the International Solar Alliance (ISA); the Common Risk Mitigation Mechanism (CRMM); India's largest multidimensional energy access survey (ACCESS); critical minerals for *Make in India*; India's climate geoengineering governance; analysing energy transition in emerging economies, including Indonesia, South Africa, Sri Lanka, and Viet Nam. CEEW published *Jobs, Growth and Sustainability: A New Social Contract for India's Recovery*, the first economic recovery report by a think tank during the COVID-19 pandemic.

The Council's current initiatives include: State-level modelling for energy and climate policies; consumer-centric smart metering transition and wholesale power market reforms; modelling carbon markets; piloting business models for solar rooftop adoption; fleet electrification and developing low-emission zones across cities; assessing green jobs potential at the state-level, circular economy of solar supply chains and wastewater; assessing carbon pricing mechanisms and India's carbon capture, usage and storage (CCUS) potential; developing a first-of-its-kind Climate Risk Atlas for India; sustainable cooling solutions; developing state-specific dairy sector roadmaps; supporting India's electric vehicle and battery ambitions; and enhancing global action for clean air via a global commission 'Our Common Air'.

The Council has a footprint in over 20 Indian states, working extensively with 15 state governments and grassroots NGOs. Some of these engagements include supporting power sector reforms in Uttar Pradesh, Rajasthan, and Haryana; energy policy in Rajasthan, Jharkhand, and Uttarakhand; driving low-carbon transitions in Bihar, Maharashtra, and Tamil Nadu; promoting sustainable livelihoods in Odisha, Bihar, and Uttar Pradesh; advancing industrial sustainability in Tamil Nadu, Uttar Pradesh, and Gujarat; evaluating community-based natural farming in Andhra Pradesh; and supporting groundwater management, e-auto adoption and examining crop residue burning in Punjab.

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Contents

Women champion farmers lead the process of preparing bio-inputs their millet farms. From the beginning, Odisha Millet Mission programme worked with community champions to showcase the potnetial of millet farming to the rest of the community.

Executive summary

It's been decades since the Green Revolution, and India's agricultural systems are facing a crisis resulting from high input costs, deteriorating soil health, continued debt cycles, inequitable market access, and lack of financial security, specifically affecting the small and medium farmers (Dutta 2012; Reddy and Mishra 2010). The crisis is compounded by extreme climate events—droughts, floods, untimely rains, and desert locusts—which have harshly impacted farmers across the country (Gupta et al. 2021). The agrarian crisis has become acute because sustainable agricultural practices and systems (SAPSs) are not widely practiced. Only five SAPSs—crop rotation, agroforestry, rainwater harvesting, mulching, and precision—have scaled up beyond five per cent of the net sown area (ibid). As the challenges we face are large-scale and systemic, intertwined with socio-economic and environmental issues, high-impact and scalable[1] solutions are needed to counter them. A viable solution comes in the form of SAPSs, which are capable of achieving multiple outcomes:

Sustainable growth and scalable impact are part of the Indian government's agenda for its G20 presidency in 2023

- Reduce financial burden of external inputs for farmers by increasing the use of readily available local resources such as locally prepared bio-inputs, natural mulching, and shade tree plantations (Khadse and Rosset 2019; Francis 1990).

- Increase the resilience of farm lands in the face of extreme climate events, improve soil health, and enhance biodiversity through practices such as minimal tillage, crop rotation, and multi-cropping (Yang, Siddique, and Liu 2020; Ranganathan et al. 2020).

- Improve nutritional security by reintroducing the diverse and local foods in our diets (White 2020).

A. Need for a scalability framework for agricultural projects

Sustainable growth and scalable impact are part of the Indian government's agenda for its G20 presidency in 2023, with agriculture being one of key focus areas. Mission LiFE, a mass movement for individual and community-led scalable actions for sustainable production and consumption, was already launched in the country in 2022. At the Government of India's urging, the United Nations declared 2023 as the International Year of Millets (IYM). India is also the chair of IYM's Steering Committee, with a mandate to scale up millet production among UN member nations.

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1. Our definition of 'scalable' or 'scalability' agrees with the one offered by Hartmann and Linn (2007): "taking successful projects, programs, or policies and expanding, adapting, and sustaining them in different ways over time for greater development impact". We have elaborated on scalability further in the Introduction.

2. Our understanding of the dimensions of 'scaling up' has a broader focus than the one offered by Moore, Riddell, and Vocisano (2015). Please refer to the report's Introduction for more details.

In the light of such fierce ambitions and timely calls for action, practitioners need to design scalable programmes to make a sizeable impact and bring the required systemic shifts. Our report answers the question, **"What are the factors that ensure the scalability of a programme?"** Many innovative solutions and projects operate in India. Only those with a high degree of an understanding of and access to social and human capital, financial resources, and government support scale up[2] as we have explained in this report.

Existing scalability literature rarely draws from the Indian experience and hence not useful to practitioners or programme implementers. Therefore, actors such as non-governmental organisations (NGOs), government departments, corporates, development financiers, and community-based organisations will benefit from this scalability framework that extracts learning from successfully scaled up programmes for sustainable agriculture in India. This report is aimed at the following stakeholders to help them design, implement, and evaluate scalable programmes:

1. **Non-governmental organisations (NGOs)**

2. **Government departments**

3. **Corporates**

4. **Development financiers**
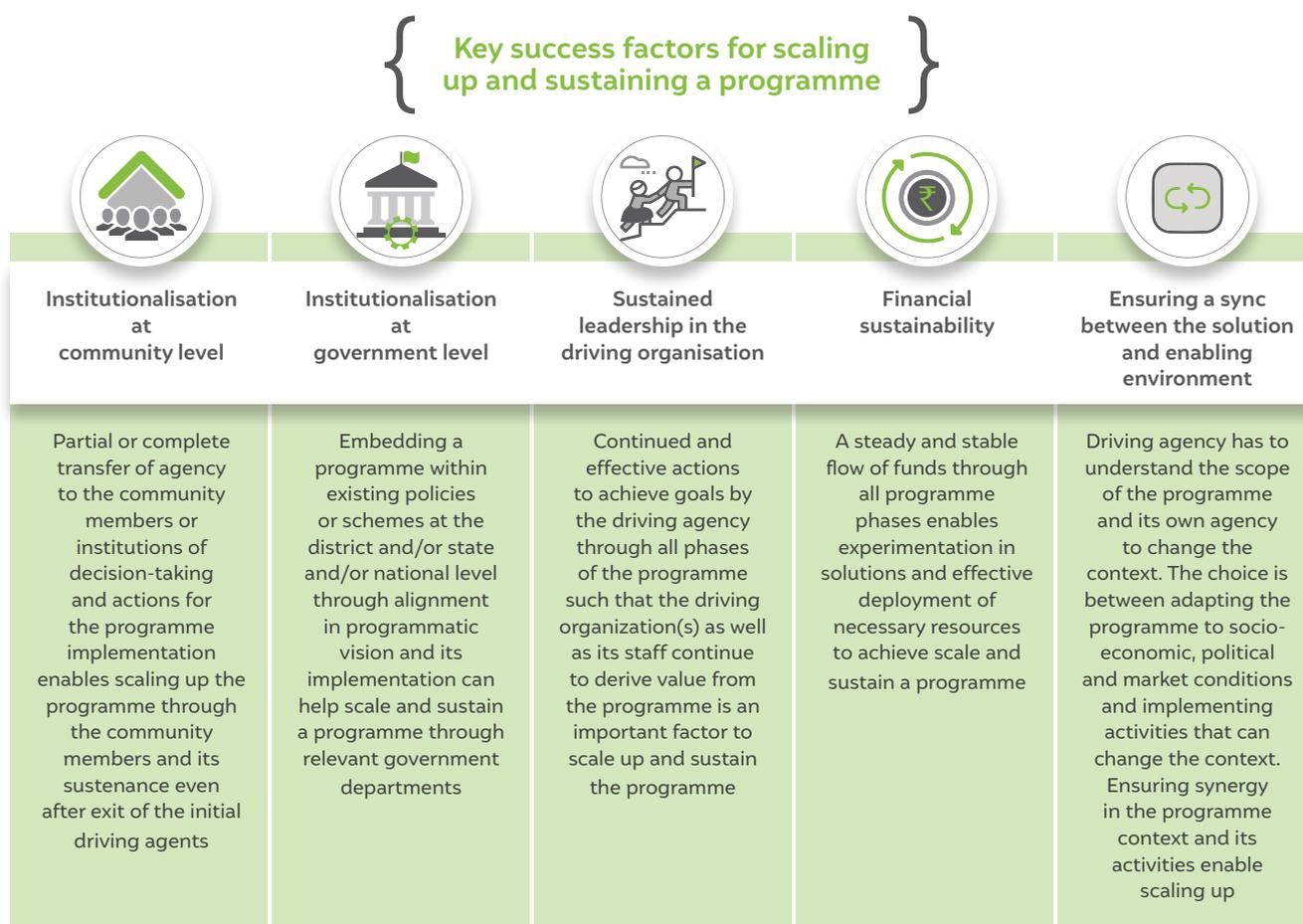
5. **Community-based organisations**

Image: PRADAN

B. How to design a scalable programme?

The scalability framework provides a set of outcomes which, when fulfilled, helps a project achieve scale. These outcomes are communicated in the form of key success factors for scalability. These key factors should be kept in mind while designing and implementing scalable programmes. Any organisation (NGOs, CSOs, corporate, government department, investor) that wishes to drive or evaluate their project's ability to scale up and sustain can use this framework.

Figure ES1 Five key success factors that enable scaling up of a programme

Key success factors for scaling up and sustaining a programme

| Institutionalisation at community level	Institutionalisation at government level	Sustained leadership in the driving organisation	Financial sustainability	Ensuring a sync between the solution and enabling environment
Partial or complete transfer of agency to the community members or institutions of decision-taking and actions for the programme implementation enables scaling up the programme through the community members and its sustenance even after exit of the initial driving agents	Embedding a programme within existing policies or schemes at the district and/or state and/or national level through alignment in programmatic vision and its implementation can help scale and sustain a programme through relevant government departments	Continued and effective actions to achieve goals by the driving agency through all phases of the programme such that the driving organization(s) as well as its staff continue to derive value from the programme is an important factor to scale up and sustain the programme	A steady and stable flow of funds through all programme phases enables experimentation in solutions and effective deployment of necessary resources to achieve scale and sustain a programme	Driving agency has to understand the scope of the programme and its own agency to change the context. The choice is between adapting the programme to socio-economic, political and market conditions and implementing activities that can change the context. Ensuring synergy in the programme context and its activities enable scaling up

Source: Authors' compilation

1. Institutionalisation at the community level

Institutionalisation at the community level is a partial or complete transfer of agency of taking decisions and actions for the programme to community members or community-level organisations. The community starts expanding the ambit and the vision of the programme, which was done earlier by the programme initiator. This was exemplified in the Tasar Silk Value Chain case study, where the non-governmental organisation (NGO) Professional Assistance for Development Action (PRADAN) moved out of its active interventional role and community members took over the strategic thinking for and engagement with the tasar silk value chain.

Figure ES2 Success factors that drive institutionalisation at community level

Each arc represents a key success factor (here, institutionalisation at community level is enabled by its own set of enabling factors as you move outwards from the center).

The spokes are **jump-off points.** Put simply, they are a set of activities, pathways, mechanisms, or tips for the implementing organisation to drive the related success factor. Can you think of additional activities from your experience?
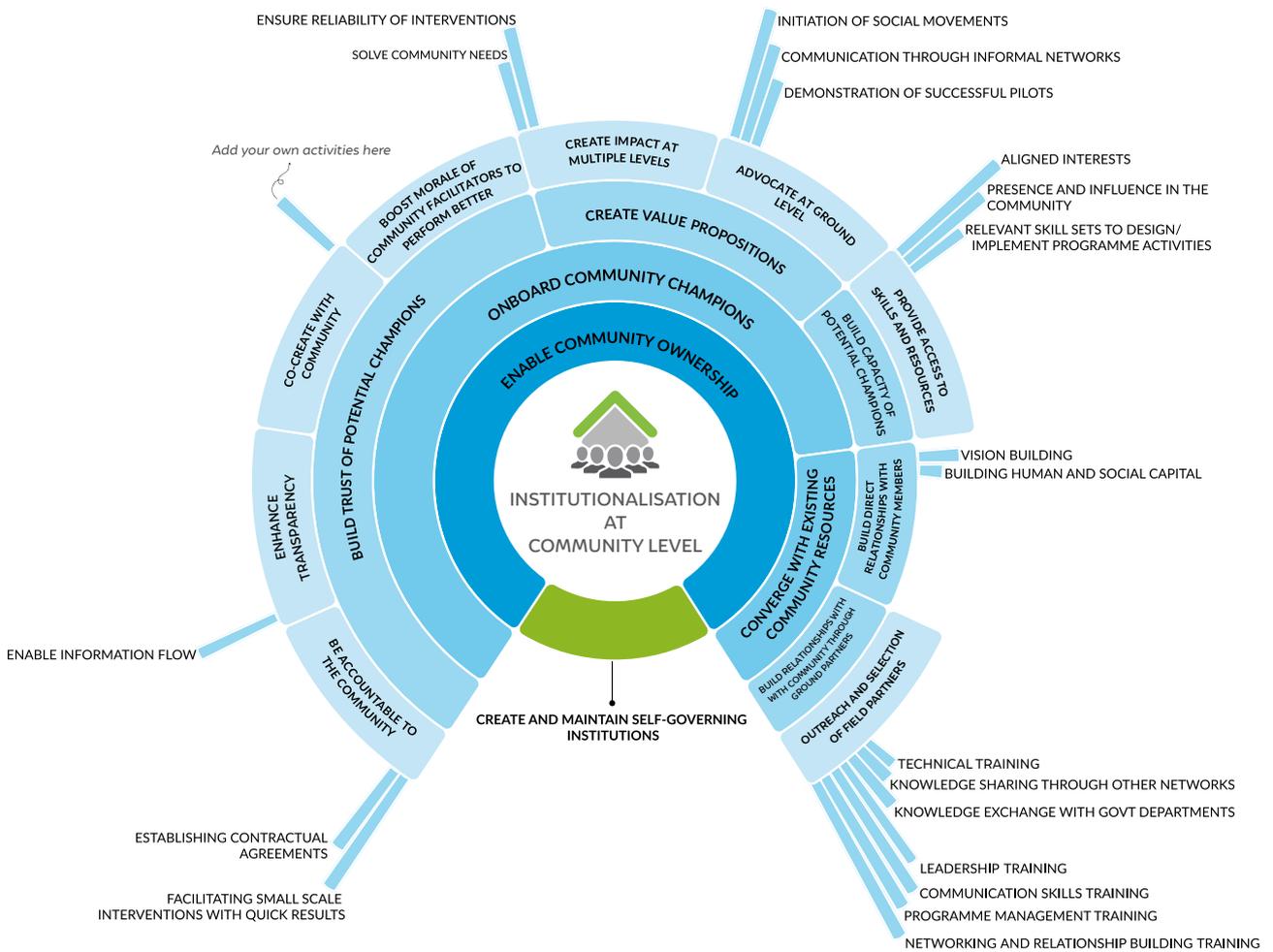
Source: Authors' analysis

If a programme fulfils the community's needs, aligns with their interests, and deploys resources to skill and capacitate the community members, it can deepen its reach within the community to establish their ownership and agency. **Thus, one of the ways to ensure institutionalisation at the community level is by enabling community ownership. In addition, institutionalisation at the community level can also be achieved by self-governing institutions**.

COMMUNICATING INTEREST IN A LONG-TERM ASSOCIATION WITH THE COMMUNITY

SUITABLE STRUCTURES THAT ENSURE PARTICIPATION

LEARNING FROM COMMUNITY MEMBERS

VISION BUILDING THROUGH PARTICIPATORY WORKSHOPS AND MEETINGS

BUILDING HUMAN AND SOCIAL CAPITAL

DEMONSTRATIONS OF SUCCESSFUL SOLUTIONS IN SMALL AREAS AND DISCUSSING IMPROVEMENTS WITH THE COMMUNITY MEMBERS

CAPITALISE ON COMPETITIVE SPIRIT OF COMMUNITY USING SUITABLE INCENTIVES

PROMOTE COMMUNITY FESTIVALS, COMPETITIONS, OTHER EVENTS

BUILD ON TRADITIONAL KNOWLEDGE AND PRACTICES

PROVIDE SUPPORT TO COOPERATIVES FOR IMPLEMENTING REQUIRED ACTIVITIES

GIVE COOPERATIVES DECISION-MAKING AGENCY FOR PROGRAMME SUSTENANCE

CREATE LINKAGES OF COMMUNITY TO GOVERNMENT DEPARTMENTS

CREATE LINKAGES TO ALL STAKEHOLDERS

KNOWLEDGE SHARING AND TRAINING

SHARE MONITORING NORMS AND MARKET STANDARDS

Add your own activities here

BEING RESPONSIVE TO NEEDS OF THE COMMUNITY

SOCIAL AUDITS

PEER MONITORING

ENSURE SHARED DECISION-MAKING POWER WITHIN THE COMMUNITY

PASS MANAGEMENT AND LEADERSHIP SKILLS TO COMMUNITY ENTREPRENEURS

BUILD COLLECTIVE BARGAINING POWER TO INCREASE COMMERCIAL VALUE OF THE PRODUCTS

ENABLE COMMUNITY OWNERSHIP

ENSURE INCLUSIVITY IN PARTICIPATION

ALLOW FLEXIBILITY FOR COMMUNITY MEMBERS TO INNOVATE

CO-CREATE WITH COMMUNITY

CREATE AND MAINTAIN CULTURAL INSTITUTIONS

CREATE AND MAINTAIN SOCIAL CAPITAL

SET UP MARKET VIABLE SOLUTIONS

CREATE AND MAINTAIN SELF-GOVERNING INSTITUTIONS

INSTITUTIONALISATION AT COMMUNITY LEVEL

ENSURE FUNCTIONAL MARKETS FOR COMMUNITY BASED ORGANISATIONS

CREATE SUITABLE ORGANISATIONAL STRUCTURES AT COMMUNITY LEVEL

CREATE ABILITY TO INVEST

CREATE ABILITY OF COMMUNITY ORGANISATIONS TO UNDERSTAND AND EFFECTIVELY USE INFORMATION

CREATE ABILITY TO PUSH SECTORAL BOUNDARIES

CREATE ACCOUNTABILITY TOWARDS THE COMMUNITY

CREATE AND MAINTAIN SOCIAL CAPITAL

LEVERAGE EXISTING COOPERATIVES

INCULCATE ABILITY TO CREATE LEADERSHIP

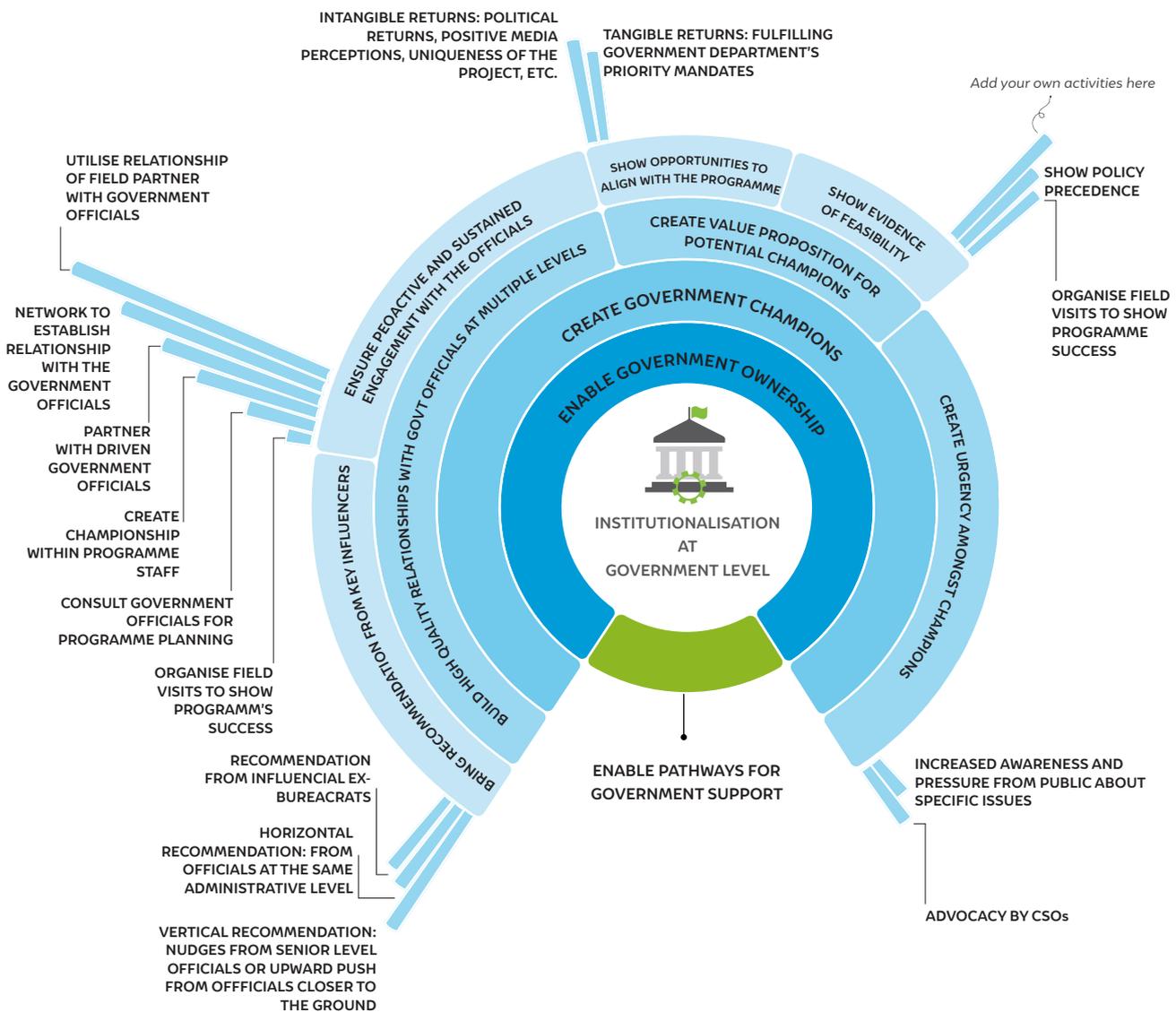*Source: Authors' analysis*

2. Institutionalisation at the government level

Embedding a programme within the existing policies, schemes, or department missions through a formal alignment of its vision and mission with the state and/or national government can create institutionalisation of the programme within the government. Through case analysis, we understand that such integration of a programme with government departments at the national or subnational levels can propel a programme to scale up at a high velocity.

Figure ES3 Success factors that drive institutionalisation at government level

Each arc represents a key success factor (here, institutionalisation at government level is enabled by its own set of enabling factors as you move outwards from the center).

The spokes are **jump-off points.** Put simply, they are a set of activities, pathways, mechanisms, or tips for the implementing organisation to drive the related success factor. Can you think of additional activities from your experience?

Source: Authors' analysis

This is evident in the trajectory of the *Odisha Millet Mission* (OMM) case study, where the state government launched an official mission on millets to promote their production and consumption by creating strong market linkages for farmers. While the existing Revitalising Rainfed Agriculture Network (RRAN)-led programme was already successful at district levels, its institutionalisation at the government level facilitated the scaling up of the OMM programme. **Institutionalisation at the government level can be facilitated by government ownership and by enabling pathways for the government to support the programme**.

CONVERGE GOVERNMENT SCHEMES

RECEIVE INFRASTRUCTURAL SUPPORT

RECEIVE TECHNICAL SUPPORT

RECEIVE FORMAL ENDORSEMENTS

FACILITATE ALLOCATION OF HUMAN RESOURCES

LOCATE PROGRAMME SECRETARIAT IN GOVERNMENT OFFICES

Add your own activities here

ENABLE GOVERNMENT OWNERSHIP

DEDICATED IMPLEMENTATION AGENCY WITH PARTIAL OR FULL AUTONOMY IN PROGRAMME IMPLEMENTATION

NEW FORMAL PARTNERSHIP WITH GOVERNMENT DEPTS/INSTITUTIONS/OFFICIALS

CAPITALISE ON EXISTING PATHWAYS

ENABLE PATHWAYS FOR GOVERNMENT SUPPORT

CREATE NEW PATHWAYS

INSTITUTIONALISATION AT GOVERNMENT LEVEL

Source: Authors' analysis

### 3. Sustained leadership in the driving organisation

Sustained leadership refers to the continued and effective actions towards programmatic goals by the programme driver. This leadership in the driving organisation should back the programme throughout its trajectory, even if the programme were to move from one driving organisation to the other. We found that the management at *Andhra Pradesh Community-Managed Natural Farming* (APCNF) instilled such leadership among the programme staff, from ground level up to higher executive levels, through constant communication and alignment on programme objectives and vision. **Sustained leadership in the driving organisation can be ensured when the driving organisation derives constant value from the programme, and when there is alignment among the leaders, staff, and collaborators of the programme on the vision, mission, and execution**.

Figure ES4 Success factors that drive sustained leadership in the driving organisation

Each arc represents a key success factor (here, sustained leadership in the driving organisation is enabled by its own set of enabling factors as you move outwards from the center).

The spokes are **jump-off points.** Put simply, they are a set of activities, pathways, mechanisms, or tips for the implementing organisation to drive the related success factor. Can you think of additional activities from your experience?
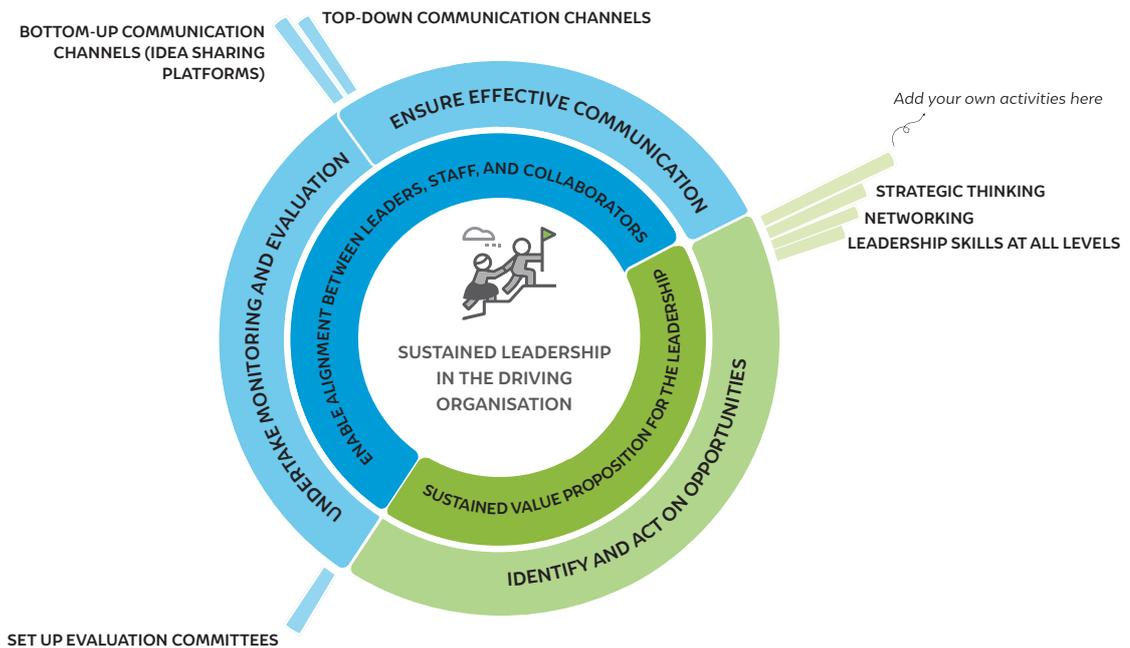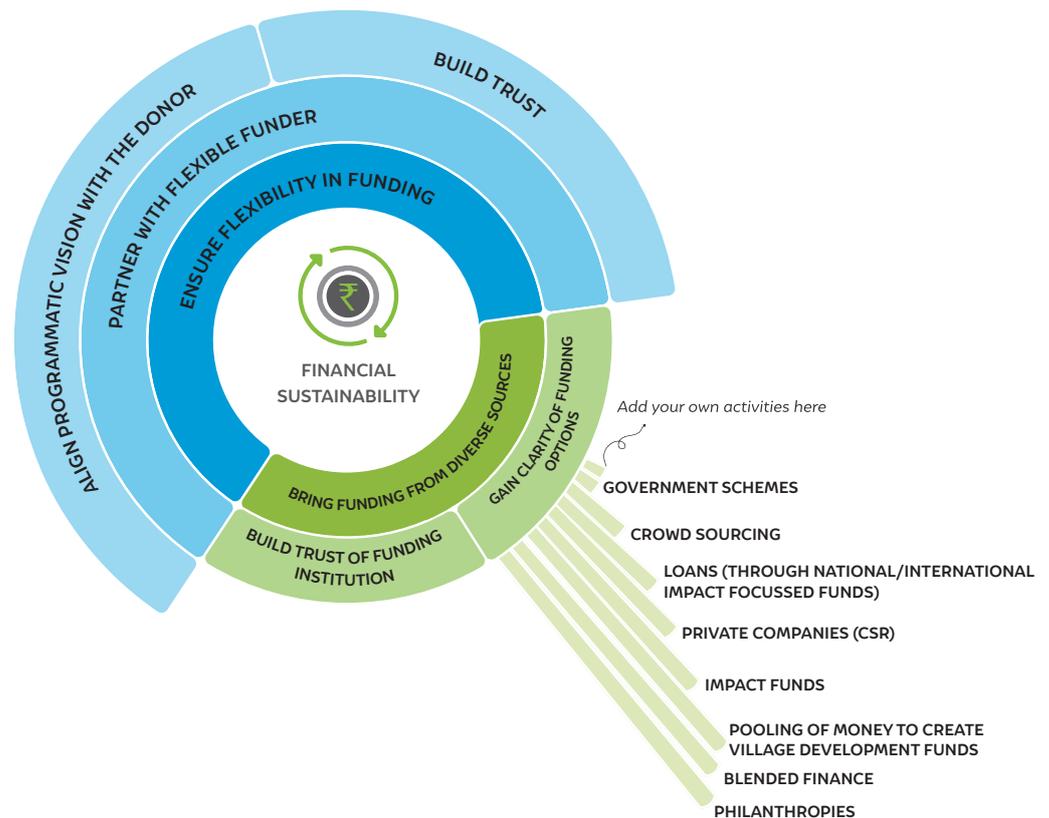

Source: Authors' analysis

4. Financial sustainability

Financial sustainability is imperative for scaling up a programme. Irrespective of whether the programme is in its pilot stage or has reached the national level, the driving organisations or institutions have to ensure a steady and stable flow of funds for further scaling up and sustenance of the programme. Financial sustainability can be enabled by ensuring diversity and flexibility in funding sources. There are several options to access a diverse portfolio of funds, such as government schemes, corporate social responsibility (CSR) funds from private companies, development funds, philanthropies, and impact funds. **It is important for the programme driver to have clarity on what kind of funds their programme requires**. For example, during the tasar value chain pilot stage, PRADAN was conscious of their need for flexibility to deploy funds to conduct experiments for finding the right technical solutions. Thus, they looked for **funders who were aligned with their approach and long-term programme goals. In all instances, it is important for the driving organisation to build the funder's trust**.

Figure ES5 Success factors that drive financial sustainability

Each arc represents a key success factor (here, financial sustainability is enabled by its own set of enabling factors as you move outwards from the center).

The spokes are **jump-off points.** Put simply, they are a set of activities, pathways, mechanisms, or tips for the implementing organisation to drive the related success factor. Can you think of additional activities from your experience?

Source: Authors' analysis

## 5. Ensure a sync between solution and enabling environment

Each core solution of the programme is implemented in a given context. It operates within a political economy in the presence of certain social structures, physical infrastructure, natural resources, and financial resources. **Some aspects of this enabling environment are beyond the influence of the driving organisation**. For example, certain policy changes, the presence of external stakeholders, or technological innovations may affect the programme. **On the other hand, the core solution refers to activities that the programme undertakes to solve the given challenges and achieve the programme objectives**. These are the key programmatic solutions that the implementers have the influence to implement according to the context. For example, adopting a new technology for the sustenance of the programme, or partnering with stakeholders to increase market linkages for the programme. For all programmes, **it is important to ensure a sync between solution and enabling environment to scale up**.

Figure ES6 Success factors that ensure a sync between solution and enabling environment

Each arc represents a key success factor (here, a sync between solution and enabling environment is enabled by its own set of enabling factors as you move outwards from the center).

The spokes are **jump-off points.** Put simply, they are a set of activities, pathways, mechanisms, or tips for the implementing organisation to drive the related success factor. Can you think of additional activities from your experience?
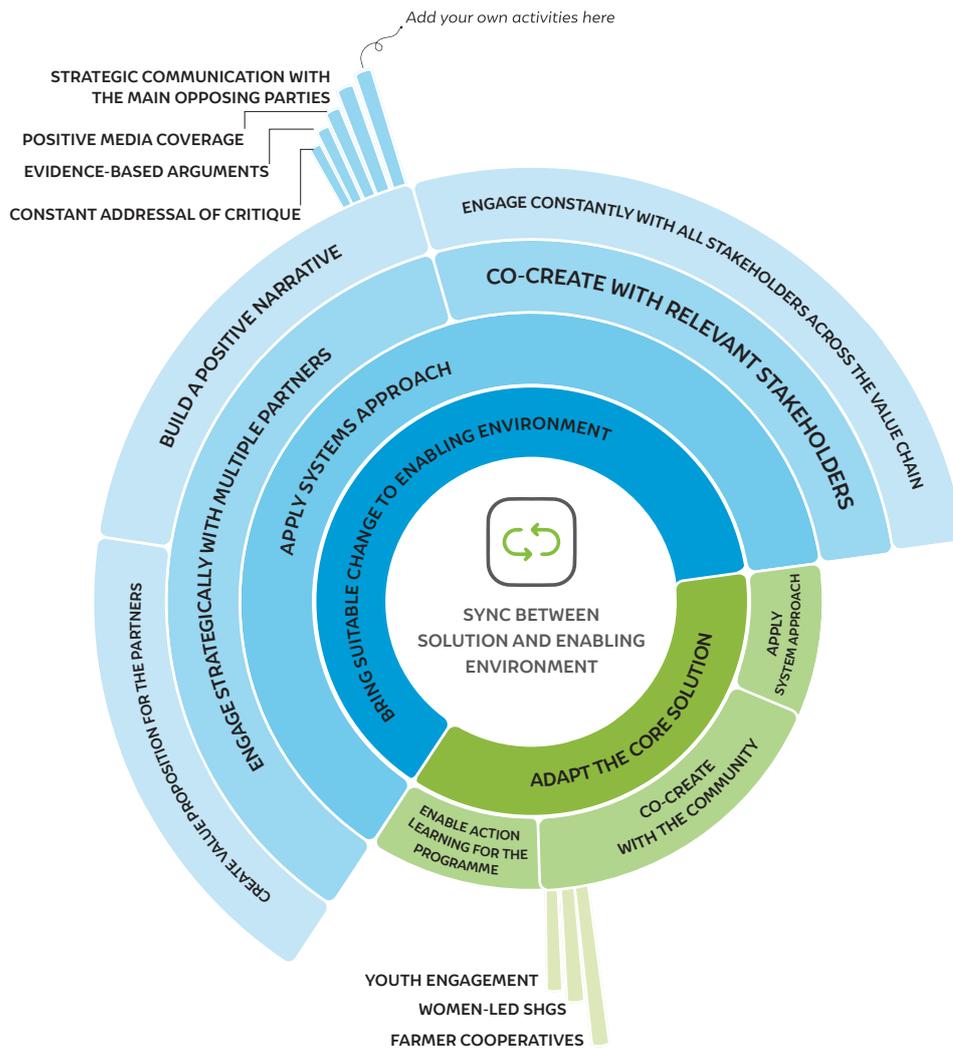
Source: Authors' analysis

It is important to understand the scope of this framework so as to most effectively engage with the theory:

- The framework does not provide weightage to success factors. The user is the best judge to prioritise success factors according to their context.

- The framework informs users about the hierarchy of the success factors, that is each key success factor is enabled by its own set of sub-factors. Upon asking the question "what do I need to do to achieve this success factor?", a list of related sub-factors answer the question. After asking this question multiple times, the user reaches the framework's last level, featuring examples of activities, interventions, pathways, and tips that drive the success factors.

- The list of activities and interventions featured in the last level of the framework is non-exhaustive. The list serves as a jumping-off point to drive the related success factor, and the user may come up with new activities or interventions suitable for their contexts to drive the related success factor. These activities, listed in the framework in **green**, highlight relevant examples from the case studies.

- The key success factors are a spectrum of possibilities for a programme to scale up. It may not be possible or relevant in all contexts to complete all five key success factors or achieve them in depth. It is not mandatory to achieve all the five success factors. However, the more a user achieves, the higher is the possibility to scale-up.

- One sub-factor can enable or influence multiple key outcomes. However, we have avoided repeating sub-factors under multiple key factors to ensure a lean and succinct framework. We have categorised the sub-factors where they make the most impact as understood from the case analysis.

The framework presents the DNA of scalable programmes in the form of success factors

C. How have sustainable agriculture programmes scaled up in the past?

The team shortlisted six cases from India based on select criteria such as programmes' focus on vulnerable populations, diversity of the driving agencies (NGOs, governments, private companies), and agro-climatic zones in which they function (see the Research Approach section to read more on case study selection).

Our team used grounded theory to analyse the cases presented below. From each programme's strategic decisions on what activities to undertake, and their successes, challenges, and failures, we extracted the reasons for how they scaled up and sustained. Through this method, we have generated the theory of scaling up solutions relevant to agriculture in India and presented it in the form of a scalability framework in this report. We triangulated our findings with experts working on the ground for programme implementation, in the finance sector and in the government sector. **Our motivation is to enable the user to scale up solutions that drive sustainability[3] in agriculture by applying this framework, which presents the DNA of scalable projects**.

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3. Here the term 'sustainability' is a collective representation of various outcomes, such as regeneration, resilience, inclusivity, equity, and eco-friendliness that various agents in the agriculture development space are working towards.

Andhra Pradesh Community-Managed Natural Farming (APCNF), RySS

APCNF is a government-driven natural farming programme, implemented by the Rythu Sadhikara Samstha (RySS) in Andhra Pradesh. RySS, a body functioning under the aegis of the state agriculture department, implemented the APCNF in 13 districts, in 2015, by building on the precedents set by the Zero Budget Natural Farming (ZNBF) movement in the neighbouring states. As the programme scaled up from just over 40,000 farmers, in 2015, to 750,000 farmers, 2018 onwards, it established natural farming as a pathway for alleviating agricultural debt cycles, skilling farming communities, and creating community cadres for programme ownership by the community.

Tasar Silk Value Chain, PRADAN

The NGO PRADAN established a long-running programme on tasar sericulture in pre-divided Bihar in 1988, which continued in the districts across Bihar and Jharkhand, eventually scaling up to seven states across India. Its objective was to learn from and improve on traditional sericulture practices of tribal communities, improve their livelihoods, and create strong units of leadership within the participating communities. To achieve these objectives, the programme trained and empowered tribal youth to take on entrepreneurial roles to support the tasar value chain. PRADAN won the cooperation of the Central Silk Board (CSB) and eventually the union Ministry of Rural Development (MoRD).

Odisha Millet Mission (OMM), Revitalising Rainfed Agricultural Network (RRAN)

Revitalising Rainfed Agricultural Network (RRAN) piloted the OMM (known as the Malkangiri pilot) in 2012. It reintroduced millets in districts of Odisha as a hardy, drought-resistant crop better suited to the state's climatic conditions and the needs of tribal farming communities. RRAN and their ground partners targeted interventions not only at farmers and farmer-related institutions but also roped in government's tribal schools to be millet-based food consumers. The programme cemented support among the community, from the district, and eventually state government departments. The state government took over OMM in 2017 as its flagship programme for millet-based agriculture. From a pilot in four blocks of Malkangiri, in 2012, the programme has scaled up to 142 blocks, across all of the 19 districts in Odisha by 2022–23.

Water Revitalisation Programme, Tarun Bharat Sangh (TBS)

Tarun Bharat Sangh (TBS) initiated and scaled-up successful water resources revitalisation programmes in arid areas of Rajasthan, based on *gram swaraj* or self-rule for villages. In its initial years, the programme built rainwater harvesting structures, revived rivers and ensured equitable sharing of community resources. In its first three years, it helped communities build 24 rainwater harvesting structures, As the programme scaled up, the River Arvari Parliament of 142 villagers, nominated by their *gram sabhas*, was formed to protect the revived river Arvari from a government-sanctioned external fishing contractor and establish sustainable agricultural practices on the nearby land. TBS went on to initiate national and international water conservation forums and campaigns that even resulted in the government designating Ganga as the national river.

Read learnings from six successfully scaled up programmes in sustainable agriculture from India

Ice Stupa, Sonam Wangchuk

Engineer Sonam Wangchuk built the pilot ice stupa in the Union Territory of Ladakh in 2014 to alleviate water scarcity in the region. Wangchuk's design improved on the older technology of artificial glaciers and leveraged the region's historic practices of collective water management to encourage community ownership. The ice stupa is built as a single, freestanding tower made of ice that does not melt easily. It stores the water available in cold weather till the following spring, to be used for irrigation, ensuring the community's access to water. The project started with a successful six-metre-tall prototype in one village and scaled up to 16 villages within four years.

E-choupal, ITC

In 2000, ITC launched a pilot to create direct links with farmers they procured agriculture and aquaculture products from. The pilot focused on forming an IT network across rural regions of 10 states by creating communication hubs called E-choupals, and community members were trained in entrepreneurial skills to operate these hubs. It gave community members easy internet access and information technology skills and created an electronic marketplace. The programme enabled them to connect directly with buyers and access important information on rates and market trends, gather knowledge on better agricultural practices, realise faster payments, get weather advisories, and avail crop insurance.

Readers interested in understanding how the programmes we analysed overcame certain barriers are invited to read the detailed case study chapters. They elaborate the activities the programmes undertook in each phase and explain their trajectory.

D. Way forward

This scalability framework is a non-prescriptive tool for designing, implementing, and evaluating scalable programmes for sustainable agriculture. It is useful for a range of stakeholders such as NGOs, government departments, corporates, development financiers, and community-based organisations, among others. It offers them insights into the successes of previous programmes and aids in decision-making in diverse contexts and throughout the programme trajectories. We encourage users to apply the success factors as per their programmatic needs. You may find that some success factors would be more relevant to your context than others; for example, if the need of the programme is to engage with the community, then you may refer to the key factor 'institutionalisation at the community level'. However, the more (and the more deeply) key factors are achieved, the higher the chances of scaling up.

This study has the potential to evolve in many ways—take a deeper look at the risks attached to the implementation of each success factor and how programmes can account for them; understand how success factors are interconnected with one another; further allocating weightage to key and sub-success factors to help users prioritise them according to their contexts.

Groundnut is the most popular choice of crop in Andhra Pradesh. This image shows a Natural Farmer with his groundnut harvest in Chitoor, Andhra Pradesh.

1. Introduction

India's existing agricultural systems are facing worrying multi-faceted effects of climate change arising out of extreme events such as droughts, floods, untimely rains, and desert locusts (Gupta et al., 2021). These challenges, combined with high input costs, fragmented land holdings, and low incomes for farmers, have brought about a sweeping agrarian crisis in the country. With a full-fledged food, water, and biodiversity crisis looming over the horizon, potential solutions need to ensure large-scale systemic shifts in Indian agriculture (Climate Champions, 2022). The recent words and actions of the Indian government show a willingness to not only take cognisance of this large-scale damage to agriculture, food security, and farmer welfare, but also aim for change.

India has made sustainable growth and scalable impact its mantra during its G20 presidency in 2023. In its year-long presidency, the Indian government is set to build consensus with other member nations to revitalise existing, and launch new, programmes that strengthen sustainable and inclusive growth for just and green transitions. As a precursor, India had already launched Mission LiFE in 2022 to build a mass movement for individual and community-led actions at scale, sustainable production and consumption, and farmer welfare.

In addition, India has also turned the global attention on millets, a hardy and nutritious crop indigenous not only to India but also to most of Asia and sub-Saharan Africa. At India's urging, the United Nations declared 2023 as the International Year of Millets. India is chairing the Steering Committee of Millets for 2023, with a mandate to scale-up millet production among the UN member nations, as stated in the year's opening ceremony in Rome. This is expected to contribute towards achieving global nutritional needs, supporting smallholder farmers and adapting food systems to climate change.

Domestically, India has trained its focus on the *National Mission for Sustainable Agriculture* (NMSA), a policy initially approved in 2010. The government has used NMSA to work towards sustainable and productive agriculture, to conserve natural resources, meet the country's nutritional needs, and also ensure the livelihoods of farmers and farm workers. The government has also recently launched, in December 2022, the National Mission on Natural Farming as a separate scheme. However, sustainable[4] agricultural practices and systems (SAPSs) are still far from mainstream in India, with only five SAPSs—crop rotation, agroforestry, rainwater harvesting, mulching, and precision—scaling up beyond 5 per cent of the net sown area (Gupta et al, 2021). Therefore, there is an urgent need for programmes and

India witnesses a number of innovative programmes, but only some manage to scale up. Lets apply the scalability framework and change this

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4. Here the term 'sustainable' or 'sustainability' is a collective representation of various outcomes, such as regeneration, resilience, inclusivity, equity, and eco-friendliness that various agents in the agriculture development space are working towards.

strategies that can drive change at scale, especially to achieve the Sustainable Development Goals (SDG) of zero hunger and of sustainable production and consumption.

1.1 Need for scalable impact in Indian agriculture

India has witnessed a number of innovative solutions and projects, as a variety of stakeholders have entered the agriculture space from public, private, non-profit, and research institutions (Khandelwal et al. 2022). Yet, only some of the projects have scaled up. Not only is the process of scaling-up time consuming, it requires a high degree of effort from the driving organisation, as well as availability of social and human capital, access to financial resources, and government support. Despite decades of work on various on-the-ground solutions, most of these initiatives have either stagnated or fallen through the cracks (Muthuprakash et al. 2020). Failing to understand the right approach, resources, or support a programme needs, and lack of access to the required resources, is restricting the scaling-up of many developmental programmes.

Studies such as *Scaling up Local Innovations for Transformational Change* (United Nations Development Program, 2011) and *Scaling Up Local and Community-Driven Development* (LCDD) (Binswanger-Mkhize, de Regt, and Spector, 2009) highlight lessons that emerge from successful developmental projects in developing countries. Others, such as the *Operational Framework for Scaling up Results* (IFAD, 2015), provide guidelines to IFAD's country teams on how they systematically mainstream scaling-up into their operations.

However, the lessons from one socio-economic and political context cannot always be directly applied to another (Mansuri and Rao, 2016). Therefore, they may hold limited value for scaling up the programmes in India. We have identified certain gaps in the existing body of knowledge (literature, toolkits) that constitutes the prevalent theories of scaling-up, which diminish their applicability to practitioners across India. The available literature is often based on experiences in social, cultural, and climatic contexts different from India; it is not always empirically informed by experiences in the agriculture sector; it does not provide an actionable tool for practitioners in India that comprehensively enables choosing relevant design options for their programmes.

Even though there are plenty of knowledgeable practitioners in India, there is no clear synthesis of their knowledge and learnings from the ground for others to learn from. Crucially, there are no usable tools based on such a synthesis that users can apply according to the varied geographic, socio-political, and cultural contexts in India. **The current iteration of the scalability framework that we present in this report seeks to fill these identified gaps to help practitioners design and implement scalable programmes that are sustainable, adaptable, and resilient to the challenges of implementation**. **In a nutshell, it presents the DNA of scalable projects**. As we build the framework, the ability to identify risks and challenges that implementers are expected to face on the path to scaling-up is also ingrained into it. Table 1 provides more information on other available scalability frameworks and the criteria they fulfil.

The report plugs a gap in the existing literature on scalability by bringing learnings from India

Table 1 A comparison of scalability frameworks

Scalability frameworks	Informed by the Indian context	Informed by agriculture-relevant programmes	Informed by programmes benefitting vulnerable populations	Based on empirical evidence of successfully scaled-up cases	Presents different factors/ strategies to design a scalable programme	Helps a user prioritise factors/ strategies according to their context	Assesses challenges related to implementation of given strategies
Scaling Up Local and Community Driven Development (LCDD), World Bank, 2009	✓ Partially	✓ Partially	✓	✓	✓	✓	
Nine Steps for Developing a Scaling-up Strategy, WHO, 2010					✓	✓	
Scaling up Local Innovations for Transformational Change, UNDP, 2011		✓ Partially	✓	✓ Only highlights pilots			
IFAD's Operational Framework for Scaling Up Results, IFAD, 2015	✓ Only IFAD programmes	✓	✓	✓ Only IFAD programmes	✓		✓
Scaling Up: From Vision to Large-Scale Change, MSI, 2016					✓	✓	
Scalability Framework, CEEW, 2023	✓	✓	✓	✓	✓	Coming soon	Coming soon

Source: Authors' compilation of World Bank (2009), WHO (2010), UNDP (2011), IFAD (2015), MSI (2016).

Odisha Millet Mission: Enabling community ownership for millets through active participation of women in tribal areas.

BOX 1	What does scalability mean?

Hartmann and Linn (2007) define scaling up as "taking successful projects, programs, or policies and expanding, adapting, and sustaining them in different ways over time for greater development impact".

We have observed in our case studies that the trajectory of scaling up has the following three dimensions:

Who and what gets impacted: A programme expands the number of people it can reach and area it can cover, either by replicating its activities in similar socio-economic groups and/or similar administrative units (gram panchayat, block, or district), in similar agro-climatic/agro-ecological zones, or by expanding operations into a larger administrative unit and/or broader set of socio-economic groups and/or agro-climatic/agro-ecological zones. A notable example of the latter is integrating the programme into larger government programmes or schemes operating at higher administrative levels (state or national level). Our meaning here is similar to, though broader than, the concept of **scale out** proposed by Moore, Riddell, and Vocisano (2015) and of quantitative types and paths of scaling-up reported by Uvin and Miller (1996).

How, and for what purpose, is impact delivered: The programme expands its key activities or solutions to address the emerging challenges or opportunities. For example, it can engage with government stakeholders to inform decision-making for an upcoming policy or address an unmet need of a community that has become urgent. Our meaning here is similar to, though broader than, the concepts of functional scale-up and political scale-up by Uvin and Miller (1996) and **scaling up** and **scaling deep** by Moore, Riddell, and Vocisano (2015).

Who is driving the impact: The programme partners with more stakeholders for programme implementation, funding, and technical support. Additionally, the set of organisations driving the programme may also evolve, shifting ownership on to the community and/or the government. Our meaning here is similar to, though broader than, the concept of organisational scale-up by Uvin and Miller (1996).

Source: Authors' compilation of Hartmann and Linn (2007), Moore, Riddell and Vocisano (2015), Uvin and Miller (1996).

1.2 Paradigms of scaling-up

The framework is derived from key strategies adopted in successful programmes that have scaled up and delivered impact at the national or subnational levels for sustainable agriculture or agri-related areas. The framework can be applied by a diversity of implementers such as NGOs, government departments, corporates, development financiers, and community-based organisations who need to design and evaluate scalable, sustainable, and resilient programmes.

Historically, a programme could scale up through two mechanisms: (a) top-down, state-led model where policies and government programmes play a key role and (b) bottom-up model where NGOs work towards empowering the community to participate in their developmental journey (Uvin and Miller, 1996). In the Indian context, the *SHG–Bank Linkage* programme and later the *National Rural Livelihood Mission* (NRLM) enabled scaling up of Self-Help Groups (SHGs) (Ministry of Rural Development, 2017). Formation of SHGs was originally initiated by the Mysore Resettlement and Development Agency (MYRADA) to facilitate better credit access to rural women (Fernandez 2006). Such mainstreaming and scaling of a development programme due to policy interventions exemplifies the first paradigm.

In contrast, the Tarun Bharat Sangh programme aimed to revive and revitalise traditional systems of water management started at the community level. Here, the community members came together to undertake a water management study and implemented nature-based solutions for water restoration. The programme is governed by 142 community members nominated by their gram panchayats. This exemplifies the bottom-up model of scaling up.

It is necessary for all the organisations driving scalable programmes (from here on referred to as driving organisations) to analyse the context (political economy, cultural values, stakeholders' interests, among others) in which their programme functions and ensure execution of the key success factors relevant for scaling up of the programme. A comprehensive list of key success factors is identified in our scalability framework.

In its current form, the framework relies on the knowledge of the implementer to choose the most relevant factors for scaling up their programme. In its next phase, we will digitise the framework allowing the user to choose the most relevant key success factors. For this, we will create archetypes of several users in different contexts (such as NGOs implementing solutions at a block level with no or minimal government buy-in or a corporate organisation implementing solutions with high community buy-in) and feed in data from further case analysis and interviews to give weightage to different success factors in different contexts.

Five key success factors can drive scale and sustainability of a programme

1.3 How to read the report

The report is divided into three parts: the first elaborates our research approach (Chapter II); the second states the scope of the framework, that is, what it enables and what it does not cover, and provides a comprehensive list of key success factors of scalability and sustenance (Chapter III); the third highlights how users can apply it in different contexts and way forward (Chapter IV).

In chapter II, we identify five key success factors (or outcomes to be targeted) for ensuring the scaling up of a programme. These key success factors come from the analysis of case studies which showcase how key success factors were achieved by the different case programmes, and how that allowed them to scale up.

BOX 2	What is a success factor?

A success factor, in the context of this framework, is a factor that drives success towards scaling and sustaining the programme. As these factors need to be enabled by programme activities, these can also be seen as intermediate outcomes that ultimately result in scaling and sustenance. For example, through community consultations and constant engagement with the community on their needs and interests (activity), a programme can attract community champions (outcome or success factor).

The scalability framework shows high-level success factors—called key success factors—which are enabled by another set of factors—called enabling factors or sub-factors. For example, community ownership for a programme is possible when there are community champions, among other factors. Here, ownership is a high-level key success factor whereas community champions is the enabling sub-factor. One has to ask the question, "how do I achieve this success factor?" to move on to the next sub-factor.

Source: Authors' compilation

Community ownership in Andhra Pradesh
Community Managed Natural Farming programme:
Champion farmers training community members
on natural farming practices.

Image: APCNF

2. Research approach

The aim of the case study analysis was to ascertain the underlying principles of scaling up, based on which the drivers designed their programmes. We sought to understand the fundamental factors behind all activities of these cases that enabled them to become large-scale programmes. Not all these programmes were consciously designed for scaling up but achieved scale due to specific outcomes of the programme activities. The framework highlights these outcomes as the key success factors of a scalable programme.

The research seeks to answer the question: **What are the activities that lead to the successful scaling up of programmes in (or related to) agriculture in India? What key success factors or key outcomes do these activities enable?**

The starting point of this research was an extensive literature review to identify the existing tools or frameworks that enable the design and implementation of scalable programmes. Learnings from these frameworks have been mentioned in the Introduction.

We seek to fill gaps in the literature by building a framework based on learnings from successfully scaled up cases from diverse geographies and contexts in India in the agriculture and land-use sector. The framework can be practically applied by NGOs, community organisations, corporates, development financiers, and the central and state governments in India to design, implement, and evaluate scalable programmes.

The process to answer the key research question followed the order mentioned below.

NGOs, corporates, development financiers, and the central and state governments can apply the framework to scale up their impact

2.1 Preliminary literature review

We performed a targeted search to identify successfully scaled-up agriculture and social development programmes in India using specific key words (found in Annexure 1). We screened the first three Google pages for identifying the initial case studies. In order to ensure regional diversity among the programmes, we specifically searched for the Indian states not represented in these first three pages. Our initial list comprised over 42 cases. The list of both initial and selected cases can be found in Annexure 2.

Of these 42 cases, we shortlisted six successfully scaled-up programmes on the following basis:

- Achievement of one or more of FOLU's critical transition points to transform the food and land-use system[5] (FOLU, 2019).

- Programme scale and velocity of scaling up, wherein velocity refers to the speed with which the case scales up.

- The level of intervention required from the driving organisation. In other words, how far is the programme from being on 'auto-pilot'. The lower the level of intervention required from the driving organisation, the higher was the preference we gave the case in the screening process.

- Coverage of sections of vulnerable populations, such as tribal farmers, small or marginal farmers, rainfed farmers, and other economically weaker sections.

We ensured that the chosen case studies represent diversity in terms of driving agencies and agro-climatic zones. The team wanted to learn from programmes led by varied driving organisations such as NGOs, government, as well as private companies, functioning in different parts of India. Finally, in our screening process, we also particularly looked for a threshold level of documentation and information availability for each case to showcase feasibility of the case progress.

2.2 Case study analysis using grounded theory

We interviewed key persons from the driving organisation who led their respective programmes. The enquiry was empirical in nature and focused on why certain decisions—to include or exclude activities, solutions, stakeholders, or partnerships—were made by the drivers at every stage of the programme, and on the successes, the failures, and the challenges of implementing the programme.

We used grounded theory as our research methodology, as the study intended to develop the **theory of scaling up and sustaining** a programme. Grounded theory enabled the team to empirically understand the activities undertaken during the programmes, and how these activities impact scaling up and sustenance. We questioned the interviewees on their perceived reasons for scaling up successfully. The interviews were semi-structured in nature. Our investigation evolved as our case analysis progressed, as we started identifying similarities in the key success factors for scale-up across different cases. At this point, we converged the reasons for success using inductive reasoning and identified the key success factors of scaling up. These key success factors are the underlying fundamentals of scalability, which can be driven by multiple activities or interventions in different contexts, as seen in our case studies. The list of activities that drive these key success factors were an inherent part of our enquiry. However, as our framework is informed by six case studies, our current list of activities cannot be entirely comprehensive.

Further details on the methodology can be found below. A copy of the basic set of initial questions used in interviews can be found in Annexure 3.

We used the grounded theory as a methodology to create the theory of scaling up and sustaining programmes

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5. The critical transitions represent a reform agenda that enables the food and land-use system to provide food security and healthy diets for over nine billion people, by 2050, while safeguarding biodiversity and tackling poverty-related challenges.

BOX 3	What is grounded theory?

Grounded theory was originally described as "the discovery of theory from data—systematically obtained and analysed in social research" by Glaser and Strauss (1967). Over the years, as the theory and its application evolved, researchers have referred to grounded theory as both the process or methodology and the resultant theory (Pulla 2016).

Grounded theory is also understood as

"an inductive approach to research, in which hypotheses and theories are generated from the data collected. It is a means of systematically collecting and analysing the data to generate theory about patterns of human behaviour in social contexts. This qualitative methodology can be used to increase understanding of social phenomena" (Engward, 2013), or a "simple and complex, methodical and creative, rigorous and laissez-faire process in which the researcher engages to generate theory from the data" (Walker and Myrick, 2006).

Grounded theory in practice:

In practice, grounded theory is a method used to collect holistic information (about the activities, successes, challenges, and strategies) on the case studies that enabled us to extract the reasons for their scale-up and sustenance. Through application of this method, we have been able to generate the theory of scaling up sustainable agriculture in India and present it in the form of the *scalability framework* in this report.

Source: Authors' compilation of Glaser and Strauss (1967), Pulla (2016), Engward (2013), Walker and Myrick (2006).
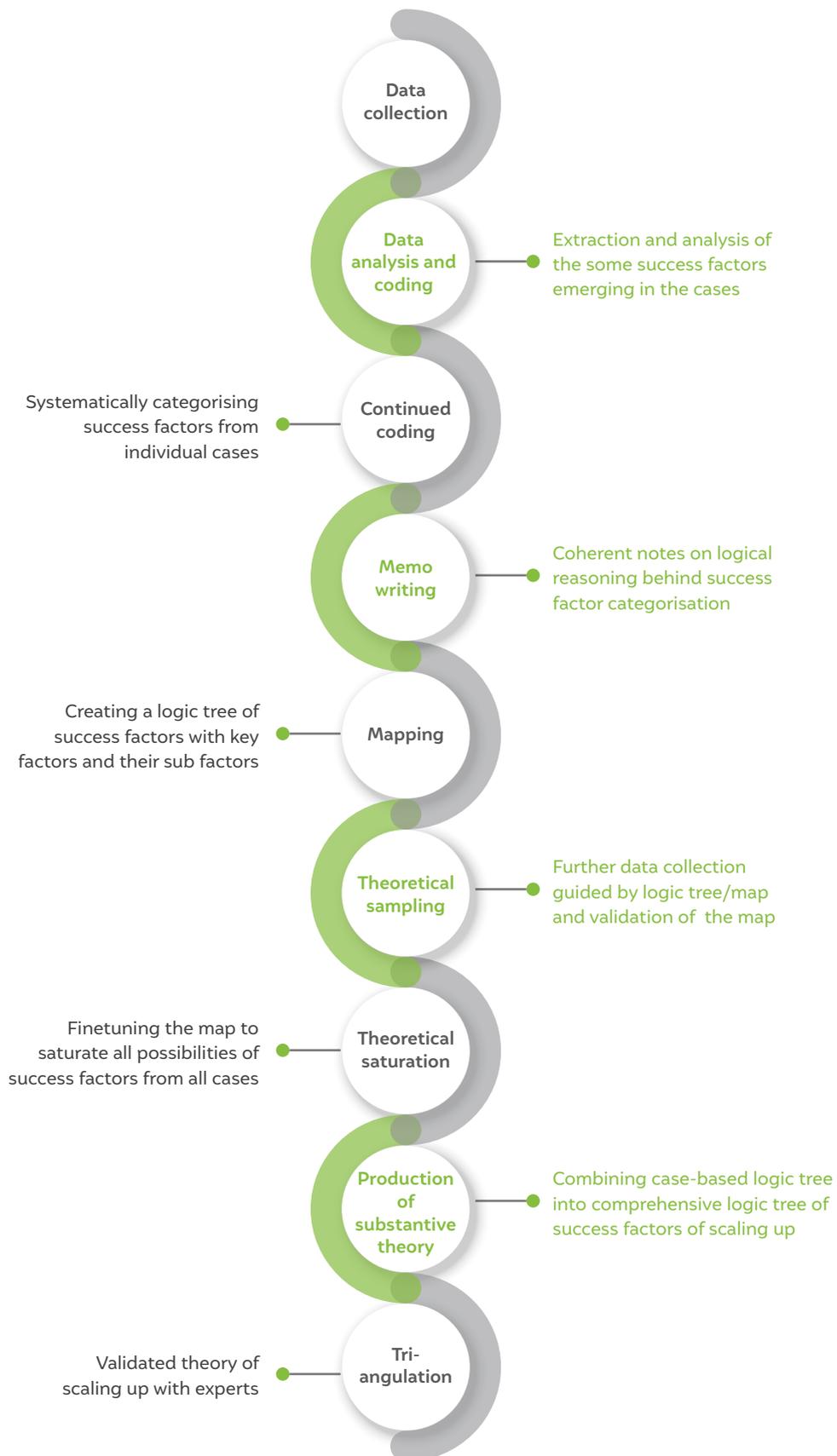
The following steps of grounded theory were taken for case study analysis. The process steps are inspired by Engward's (2013) work on understanding grounded theory:

- **Data collection** using literature review on the chosen case studies and semi-structured interviews with implementers of the case programmes. In this stage, we asked the interviewees about the objectives of their programmes, how they started the programme, what key activities were part of their programme, who were the core partners in the programme, their implementation strategy through each step of the programme (what our report calls programme phase), and why they chose to take certain programmatic decisions. We also enquired into why they think certain programmatic decisions led to the scaling up of the programme.

- **Immediate data analysis and coding**: After data collection, we started extracting and analysing the key themes emerging from the decisions and actions (and their reasoning behind the actions) for the programme, such as steps taken to involve the community, the government, and to ensure financial stability. All programme actions were thus categorised into several themes with subsequent interviews. The maximum number of categorical themes were created in this initial phase. In the grounded theory research framework, the process of extracting these themes is called **coding** and the key themes are called **codes**.

- **Continued coding**: We continued to extract new information from the interviewees on the decisions and activities of the programme and related reasons that enabled the programme to scale up. In parallel, we reviewed the pre-existing codes that had emerged in the previous steps of data collection and analysis and categorised new pieces of information

under the relevant codes. At the same time, as we discovered new sets of actions for scaling up, new codes also emerged. The process of discovering different codes which captured the reasons for programmes to scale up, and understanding how they logically correspond with each other, produced an emergent theory of scaling up.

- **Memo writing**: This step was undertaken in parallel with data analysis and coding. As we categorised decisions and actions under certain themes and derived key success factors of scaling up from such analysis, we kept notes on the logical reasoning behind these categorisations. This documentation allowed us to restructure the codes as kept gathering more information. This proved to be a very important step in the process of theory building.

- **Mapping**: Upon reaching a stage where we could identify the key success factors and their sub-factors for scaling up—community ownership, government ownership, financial sustainability, continued leadership—and link these factors back to specific activities of the case programme, we mapped our theoretical understanding onto a 'logic tree' or a 'mind map'. The map was made individually for each case and logically showed which key success factors allowed the programme to scale up, and what sub-factors/activities enabled them. See the figure below.

- **Theoretical sampling**: Further data collection and analysis was guided by the mind map constructed previously. In this step, we validated our analysis of success factors (and the logical relationship between them) for scaling up by presenting the mind map to the case owners and systematically collected new data to add to the emerging theory.

- **Theoretical saturation**: Upon validation of the theory of scaling up for each case, we used the existing codes from one case to inquire into potentially missing pieces of information for other case studies to further confirm, modify, and fine-tune our investigation. In this way, we also saturated the information that would fit under key themes of success factors.

- **Production of a substantive theory**: At this stage, individual mind maps of the six case studies were collated into one comprehensive mind map that presented the collated and logically linked the understanding of key success factors for scaling up. Each code—that was initially identified (key theme)—now becomes crystallised here as either a key success factor or a sub-factor. These sub-factors are themselves enabled by a set of interventions or activities performed by individual programmes. The list of sub-factors and key success factors and activities under each theme may continue to evolve with further research.

- **Triangulation**: We finally triangulated the theory of scaling up with experts from relevant sectors, such as the development finance, government, and civil society. The list of stakeholders who have provided feedback on the framework can be found in Annexure 4.

Figure 1 Step-wise application of grounded theory

Data collection

Data analysis and coding — Extraction and analysis of the some success factors emerging in the cases

Systematically categorising success factors from individual cases — **Continued coding**

Memo writing — Coherent notes on logical reasoning behind success factor categorisation

Creating a logic tree of success factors with key factors and their sub factors — **Mapping**

Theoretical sampling — Further data collection guided by logic tree/map and validation of the map

Finetuning the map to saturate all possibilities of success factors from all cases — **Theoretical saturation**

Production of substantive theory — Combining case-based logic tree into comprehensive logic tree of success factors of scaling up

Validated theory of scaling up with experts — **Tri-angulation**

Source: Authors' compilation

A millet farmer dehusking ragi - a process that removes the outermost layer of the grain, making it digestible for our bodies.

Image: Odisha Millet Mission

3. Scalability framework

This scalability framework intends to present the DNA of scalable projects. It provides a set of outcomes that the programme drivers need to work towards throughout the course of the programme. These outcomes, communicated in the form of key success factors for scaling up, inform the process of designing and implementing scalable programmes. Any organisation (NGO, corporate, government department, investor) that wishes to either drive or evaluate the ability of projects to scale up or sustain can use this framework. Different factors or sections of the scalability framework would become relevant to different stakeholders depending upon the gaps their programme need to solve and feasibility of implementing the key success factors in their given context. Through such a comprehensive list of key success factors, it lays the foundation for the driving organisation to methodically and strategically think about scalability and sustenance. It also ensures that issues important for the programme's scalability do not slip under the radar. Thus, the framework is not prescriptive in nature. It walks the user through the process of decision-making, presenting the importance of each key success factor in a given context, in order to ensure the scalability, replicability, and sustainability of initiatives aimed at transforming agriculture.

The scalability framework is a non-prescriptive tool for a range of actors aiming to create an impact in Indian agriculture

In its current form, the scalability framework shows the user the actions they can take to ensure scaling up, and thereby safeguard against failure during a programme's trajectory. In its future iteration, the framework will address the risks of failure and challenges attached to scaling up more directly. Readers interested in understanding how the case programmes overcame certain barriers are invited to go through the detailed case study chapters, which elaborate the activities they undertook in each phase and explain their programme trajectory.

3.1 Tips to engage with the framework: What the framework presents

- **The framework does not provide weightage to key success factors**

  The framework does not inform the user about which key factors they should prioritise to ensure scale. This judgement must come from within the driving organisation by clearly understanding the enabling environment in which their programme functions as well as assessing their organisation's strategy and actions for scaling up.

- **Success factors are hierarchical**

  The framework informs the user about the **hierarchy of success factors**. Here, hierarchy means that each key outcome or key success factor is enabled by its own set of enabling factors. (For clarity of reading, the framework refers to these as sub-factors.) While reading a particular key success factor, the framework invites the user to ask, "what do I need to do to achieve this success factor?" It then presents a list of sub-factors that answer the question and hence their completion advances the user to the next level. There are four

levels for each key outcome or key success factor. Upon asking this question multiple times, across the levels, the user will reach the last level of the framework which presents various activities or interventions that can be undertaken to drive the key success factors.

- **The list of activities or interventions is non-exhaustive**

  The last level of the framework features a set of activities, pathways, mechanisms, or simple tips as a jumping-off point for the implementing organisation to drive the related success factor. These activities, tips, pathways, or mechanisms, listed in the framework in **green**, highlight relevant examples from the case studies. The list, however, is not comprehensive, and users may find new activities in their contexts to drive the related success factors.

- **Spectrum of key success factors**

  The framework presents the key success factors as a spectrum of possibilities for a programme to scale up. It may not be in everyone's capacity, or be relevant, to complete all the five key success factors given their enabling environment. Similarly, it may not be feasible or relevant to achieve each key success factor in much depth. Thus, it is not mandatory to achieve all the key success factors. However, the more (and the more deeply) key factors are achieved, the higher the chances of scaling up.

- **One sub-factor can enable multiple key outcomes**

  This means that a level three success factor for one key outcome could also influence another key outcome. For example, *creating and maintaining social capital enables self-governing institutions* at the community level, which further drives the key outcome *institutionalisation at the community level. Creating and maintaining social capital could also drive the creation of community champions*, however, it does not feature under *community champions*. This is done to avoid the repetition of sub-factors and ensure a lean and succinct framework. We have categorised the sub-factors where they make the most impact as understood from the case analysis. Only a few sub-factors emerge in multiple places serving different purposes. For example, *co-creation with community* improves community ownership as well as programme resilience. Thus, it comes under both the key success factors *Institutionalisation at the Community Level* and *Ensuring a Sync between the Solution and Enabling Environment*.

A. What this framework is not

It is not a laundry list of skills required to achieve these key success factors

While this framework informs the user on how to scale up, it does not capture all the necessary skills the driving organisation staff need to possess to achieve the key and sub-success factors. For example, one of the drivers of *Financial Sustainability* has a sub-factor *diverse source of funding*. The framework elaborates on **how** such a diverse portfolio can be ensured: by having clarity of funding options and building the trust of the funding institution. It also goes into the several finance options that the driving organisation can explore. However, **it does not capture the kind of financial management skills** the driving organisation needs to successfully acquire grants or funding opportunities, such as writing business proposals, conducting feasibility studies, having clear risk management plans, or clear fund disbursement plans.

It is not a framework for organisational management

This framework only presents those managerial factors that are important for scaling up a programme. It is not a checklist for executives to manage their teams or organisation or build
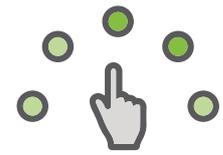
There are multiple activities, pathways, or mechanisms to achieve scale – choose what fits you best

their institutions. There is already a wide body of literature on general institutional and organisational management, and including such suggestions goes beyond the scope of this study. Thus, managerial factors such as ensuring structured institutional arrangements, clear roles and responsibility allocation, and effective team-wide communication are not captured in this framework.

It is not a rulebook on what activities to scale up

This framework refrains from telling the user what to scale up in their programme. Rather, it enables the user to prioritise action, in order to scale up the programme. For example, the framework will not elaborate whether a programme driver should scale up specific agricultural practices. However, once the driver chooses to promote such a practice as a part of their programme, the framework presents them with options on how they can scale it up, be it through creating community champions or government champions.

3.2 Success factors of scaling up

This section presents all the key and sub-success factors identified by the team to enable scale of the programme. The definitions of the success factors are inductively identified directly from the case analysis.

Image: CEEW

I. Institutionalisation at the community level

Institutionalisation at the community level is a partial or complete transfer of the agency of taking decisions and actions for the programme to community members or community-level organisations. The community starts expanding the ambit and the vision of the programme, which was done earlier by the programme initiator. Institutionalisation at the community level can be driven by the following actions:

A. Enable community ownership

Community ownership refers to the shared interest of community members, or influencers, in programme objectives and implementation. Community members can start driving and expanding the programme when they start trusting the programme's activities and key drivers and take responsibility for programme implementation and evolution. This is possible if the programme drivers do the following:

1. Onboard community champions

A champion is a community member who is interested in working towards the programme objective and has the ability to influence the community through dialogue and facilitating interventions. A programme may work with the existing community champion(s) or need to create new champions to build trust with the community members. Community champions are usually the first agents to take ownership of a programme. To drive community championship, the drivers should do the following:

(a) Create value proposition for the potential champions

The value proposition for a potential community champion is the combination of perceived impact and feasibility of a programme. A community member assesses the potential benefits that can be feasibly reaped from a programme. This person becomes a champion when they see value in the programme in terms of clear benefits (environmental, social, or economic), as well as the ease of implementation for them and the community at large. The following factors enable value proposition:

i. Create impact at multiple levels

In order to show value to potential champions across different sections of the community, the programme driver should understand the community at multiple levels by becoming aware of the community's perceived problems, foundational barriers to livelihoods, and the needs and aspirations of diverse demographic groups. With such information, interventions can be implemented across different layers of the community.

Tips to create impact at multiple levels of the community:

- **Solve community needs:** This begins with addressing urgent problems of the community, such as lack of water access or insufficient means of livelihood. The programme drivers can understand these needs through consultations with diverse community groups.

- **Ensure relatability of interventions:** The cause of the programme, as well as its communication, should be in line with community thinking and mindset. The programme driver can achieve this by analysing and compiling the viewpoints of several community stakeholders, including community leaders.

Start with solving for the most urgent problems, and ensure that the community relates with the programme's interventions

ii. Advocate at the ground level

Value proposition for the champions can be created by clearly and transparently sharing the programme objectives on the ground and communicating the potential success of the programme to diverse community groups. As community members perceive the programme to be feasible, they start seeing value in driving the programme forward.

Some pathways to advocate at ground level:

- Communication through informal networks, that is, face-to-face discussions, social media channels, and community influencers.

- Initiation of social movements to raise awareness among the general public.

- Demonstration of successful pilots.

Build trust of the community champions by being accountable to and transparent with them

(b) Build the trust of potential champions

Members will become champions when they trust the programme's objective, people, and process. Thus, the programme should be able to do the following:

i. Be accountable to the community

Community members start trusting programme staff when they take responsibility for programmatic decisions and show dedication to the creation of impact.

Some pathways to show accountability to the community are:

- Establishing contractual agreements with community members to ensure commitment towards community welfare and programme objectives.

- Facilitating small-scale interventions that yield relatively quick results. Small wins develop trust among the community members towards programme staff and objectives.

ii. Enhance transparency

Trust can be gained by ensuring the community's access to information about the programme vision, solutions, progress, as well as programme management.

Tip to enhance transparency:

Information should flow from programme leaders (such as government or civil society organisations (CSOs)) or community champions to all the community members through regular meetings and sharing documentation.

iii. Boost the morale of community facilitators to perform better

Motivation is key for continued work and championship. Recognising and appreciating the effort of champions nurtures a connection with and trust in the driving agency. This can be done by rewarding champions at special events.

iv. Co-create with the community (Go to the success factor 'Co-create with the community')

(c) Build capacity of the potential champions

Building technical, managerial, and communication skills and the knowledge capacity of resource persons is usually a key challenge for ground-level programmes. An initial investment in training and skill development can go a long way to sustain the impact of champions at the community level. Capacity building can happen by doing the following:

i. Provide access to skills and resources

Relevant training can be provided by the driving agency or its partners who have expertise in the required areas. A clear division and communication of the roles and responsibilities of facilitators should complement the training.

The following kinds of training and information flow can be made accessible throughout the programme trajectory:

- Knowledge exchange with government departments (for example, through information facilitation centres).

- Knowledge sharing through other networks (NGOs, private companies).

- Programme management training.

- Technical training (based on the nature of interventions and solutions).

- Training on leadership skills—enhancing the community champions' ability for making sound decisions and problem-solving.

- Training to build communication and presentation skills.

- Training for relationship building and networking.

2. Converge with the existing community resources

Community ownership can also be enabled by developing and implementing the programme in collaboration with the community members based on the existing practices and traditional knowledge learnt through field visits. Developing the programme with this knowledge will minimise the risks of misalignment with the community and increase its knowledge pool. In addition to community champions, relationships with the wider community naturally increases programme acceptance and ownership. The following factors can enable convergence with the community:

(a) Build direct relationships with community members

Relationship building is an unquestionable criterion to successfully gather resources. If the driving organisation chooses to develop such relationships, they need sufficient time and effort to integrate themselves with the community. This enables the organisation to absorb tacit community knowledge and converge with the existing ground resources over time.

There are several pathways to align the programme with the existing community practices:

- Ground visits and deep familiarisation with the community.

- Learning from community members (traditional practices, challenges).

- Vision building, that is, working towards a common end through participatory workshops and meetings.

- Building human and social capital through technical and management skills training. (Refer to 'Social Capital' below for more details).

- Demonstrations of successful solutions in small areas and discussing improvements with the community members.

- Communicating interest in and build long-term association with the community.

Learning from existing traditions, and demonstrating small programmatic wins to community members enable good relations with the community

(b) Build relationships with community through ground partners

At times, it may be difficult to build a relationship from scratch with the community within the programmatic timelines. In such cases, it is useful to partner with CSOs that already have a strong engagement with the community and bring grounded knowledge to the programme. The programme can benefit from its relationship with the community and reduce the risk of failure. Ground partnerships can be built in the following ways:

i. Outreach and selection of field partners

To ensure good quality partnerships that add value to the programme, the driving agency must develop selection criteria as per programme needs.

A few criteria for choosing ground partners are as follows:

- Aligned interests with the programme vision

- Presence and influence in the community

- Relevant skill sets to design and implement programme activities

B. Create and maintain self-governing institutions

The rules of self-governing institutions (Elinor Ostrom, 2005) are decided by the community with or without the support of the programme initiator. "Institutions are regularized patterns of behavior between individuals and groups in society" (Leach, Mearns, and Scoones, 1999). These institutions may already be present in the community or need to be created by the programme driver. They formalise community participation and have the ability to gather and monitor the use of resources, and regulate programmatic activities at the community level. Some examples of such institutions are self-help groups (SHGs), farmer producer organisations (FPOs), village councils, and micro, small, and medium enterprises (MSMEs). Self-governing institutions can sustain the programme in the long run and make it resilient to external shocks. These self-governing institutions may be commercial or non-commercial in nature. Programme drivers can sustain these if they accomplish the following:

Social capital in the community facilitates formation of community-based institutions that can drive programme activities

1. Create and maintain social capital within the community

Social capital encompasses specific social networks that enable community members to pursue common interests. It enables cooperation using informal values and norms shared among community members (Fukuyama 1995; Baker 1990). The presence of social capital facilitates the formation of community institutions that can drive programme activities.

See how social capital enabled a self-governing institution for Arvari river basin management by community members in Alwar. (Annexure 5)

Social capital can be built when programme drivers do the following:

(a) Create and maintain cultural institutions

Cultural institutions define the norms of community behaviour. They have the capacity to interpret and disseminate cultural, scientific, and environmental knowledge. A programme can attract or increase interaction with community members by aligning with the cultural practices and events that the community identifies with. It is important for the programme leader to be sensitive to the roots of cultural practices and engage with certain institutions with an awareness of long-term implications for community members.

Engagement and interaction with community institutions can take the following forms:

- Building on traditional knowledge and practices (bringing back knowledge that is not in use).

- Promote community festivals, competitions, and other events.

(b) Co-create with the community

Co-creating solutions with the community based on their inclinations, needs, and knowledge enables alignment with the members. The driving organisation should ensure this process happens in line with the programme's strategies. Several ground-level institutions, such as SHGs, FPOs, and other cooperatives, can be incorporated into this process. Co-creation is enabled when drivers accomplish the following:

i. Ensure inclusivity in participation

Inclusivity refers to the equitable participation of members across gender, class, caste, and religion. This may come with trade-offs, as disrupting the existing system by including certain members might not work for programme sustenance. Though representation is important to capitalise on communities' co-creative power to find solutions, it is important to build their trust before pushing for the representation of all their members in the programme.

Inclusivity can be enabled by the following ways:

- Suitable structures that ensure participation. For example, creating a village council with representation from each family in the village.
- Learning from community members (traditional practices, challenges).
- Vision building (working towards a common end) through participatory workshops and meetings.
- Building human and social capital (technical/management skills training).
- Demonstrations of successful solutions in small areas and discussing improvements with the community members.
- Communicating interest in a long-term association with the community.

ii. Allow flexibility for community members to innovate

Just as any programme needs flexibility from its donors to innovate solutions, community members and community-led institutions require flexibility to unleash creativity in alignment with the programme principles.

Prescriptive solutions can be minimised by the following ways:

- Capitalising on the competitive spirit of the community using suitable incentives.
- Utilising all resources in the society for exploring the feasibility of solutions. FPOs, farmers cooperatives, SHGs, and youth groups are a few examples of such resources. A programme can also promote and normalise equal participation of women through these institutions.
- As mentioned previously, suitable structures that ensure participation can also provide the space for innovation.

Allow flexibility for the community members to innovate, and ensure inclusivity in participation while co-creating solutions with the community

2. Ensure functioning markets for community-based organisations

Functioning markets have the ability to sustain supply (supplier, product) and demand (buyer and need of the community) (Melody 2006). Ensuring the availability of markets across the value chain and across its support functions (procurement of inputs, infrastructure development, technology development and human resource management) (Porter 2001) can ensure sustenance of economic activities at the community level through enterprises such as MSMEs and FPOs. These community-based organisations, which carry out commercial activities that in turn sustain programme activities, further enable self-governance of the programme by the community.

See how PRADAN supported community enterprises to create markets for tasar silk in Bihar and Chhattisgarh. (Annexure 5)

The necessary conditions to ensure functional markets are the following:

(a) Set up market-viable solutions

Market-viable solutions can be set up by individual community entrepreneurs or community-based enterprises with specific skill sets related to management and sales, as well as required technical knowledge. Solutions are viable when they rely on well-functioning value chains that incorporate the resource capacities of the community. At the same time, the solutions should address the needs of the community and provide sufficient returns and incentives for the enterprises to continue implementation.

(b) Create suitable organisational structures at the community level

Along with creating efficient and functional solutions, it is important to train the existing entrepreneurs and/or improve existing management and operational structures so as to monitor and improve programme activities throughout its trajectory. To create these structures, a programme should do the following:

i. Leverage existing cooperatives

Since farmer cooperatives are formally entrenched in the community with self-governing structures, converging the programme with them will provide organisational structure to implement the activities smoothly.

Some tips to create dependence in the programme on cooperatives:

- Providing support to the cooperatives for implementing the required activities.
- Giving cooperatives the decision-making agency for programme sustenance.

ii. Inculcate the ability to create leadership

As the programme scales up, community champions should be able to create new resource persons at the community level who take ownership of programme tasks. As the number of resource persons increases, the programme's resilience also improves.

Community leaders can ensure the following:

- Passing management and leadership skills to community entrepreneurs
- Ensure shared decision-making power within the community
- Build collective bargaining power to increase commercial value of the products

iii. Create accountability towards the community

Any organisational structure needs to be transparent and trustworthy for the community to sustain the programme in the long run.

Some mechanisms to enable this are the following:

- **Peer monitoring:** Where community members regularly report to the driving organisation about progress on implementation of programme activities at the community level. This reinforces a sense of community among members who have enrolled for the programme.
- **Social audits**[6]

Solutions are viable when they rely on well-functioning value chains that incorporate the resource capacities of the community

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6. According to the Food and Agricultural Organisation (FAO), social audit "is a way of measuring, understanding, reporting and ultimately improving an organization's social and ethical performance. It is a technique to understand, measure, verify, report on and to improve the social performance of the organization.

iv. Create the ability to invest

Investments and constant flow of funds are important to sustain organisational structures and the programme in general. The community's ability to find investments is key to self-governance of the programme.

Ability to invest can be enabled by:

- Creating linkages of community with government departments

v. Create the ability of the community organisations to understand and effectively use information

To sustain the programme, it is important for organisational structures to be able to identify, collate, comprehend, and apply information from various sources.

Ability to understand and use information can be developed through:

- Linkage with all stakeholders

- Knowledge sharing and training

- Sharing monitoring norms and market standards

vi. Create ability to push sectoral boundaries

The community should have the ability to create systematic changes across different points of the value chain as per the programme needs.

Self-governing institutions will be able to create such changes when:

- The programme is responsive to the needs of the community.

Capacitate the community to create systematic changes across different points of the value chain as per the programme needs

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(c) Create and maintain social capital (see factor 1: Social capital)

Image: APCNF

II. Institutionalisation at the government level

Embedding a programme within the existing policies, schemes, or department missions through a formal alignment of its vision and mission with the district and/or state and/or national government can create institutionalisation within the government. The following factors drive institutionalisation at the government level.

A. Enable government ownership

Ownership here means that government officials at either the block, district, state, and/or the national levels start steering the programme. The spectrum of ownership can vary from support for the programme to a policy initiative by the officials, directing funds towards the programme, and investment of time from champions. As the ownership becomes stronger, there are higher chances for the government to drive the programme. Government ownership can be enabled when programme drivers do the following:

1. Create government champions

Government champions are individual officers or political influencers at different levels who willingly start supporting the programme in their own capacity. This marks one of the first steps for buy-in at the government level. To enable this, the programme drivers should do the following:

(a) Create value proposition for the potential champions

A programme may hold value for a champion when their interests match its potential outcomes. At the same time, the feasibility of the programme is important for ensuring the buy-in of a government champion. The drivers should ensure the following:

i. Show opportunities to align with the programme

Government officials see value in the programme when available opportunities also present potential returns for them.

Potential returns for the champions can come in many forms:

- **Intangible returns:** The official will find the programme valuable if they get political returns, positive media coverage, their personal beliefs align with the programme vision, or they can stand out by supporting a unique project.

- **Tangible returns:** The official will find value in the programme if it aligns with the department's priority mandates. The programme can help the champion fulfil the department's Key Performance Indicators (KPIs). Using the same key words and terminology as the champions can facilitate the process of alignment with the KPIs.

ii. Show evidence of feasibility

Even when there is a possibility of impact creation, the programme might not always be perceived as practical by the champion.

Evidence of programme's feasibility can be created by the following:

- **Showing policy precedent:** Precedent refers to previous programmes that were similar in nature and were implemented either in the same state or in other regions within a similar context.

Dedicated engagement with relevant officials on programmatic topics can foster high-quality relationships with the potential champions

- **Organising field visits:** Field visits for different government officials at state, district, and sub-district levels to showcase successful experimentation create important evidence towards programme feasibility.

(b) Build high-quality relationships with government officials at multiple levels

Creating relationships with potential champions is complementary to showcasing value addition of the programme. Steady and good relations are important to build the trust of potential government champions. Such relationships can be developed by doing the following:

i. Ensure proactive and sustained engagement with officials:

Dedicated engagement with relevant officials on programmatic topics can foster high-quality relationships with the potential champions.

Some ways to ensure a good relationship with potential champions are the following:

- **Utilising relationship of field partners with the government officials:** If the driving organisation does not have an existing presence on the field, then the ground partners can be engaged as intermediaries to bridge the relationship.

- **Networking to establish relationship with the government officials:** The programme staff can establish relationship with the officials organically through relevant seminars, conferences, workshops, or training, or structurally by locating its secretariat in the same building as government offices to increase face-to-face interactions with the government officials.

- **Partnership with driven government officials:** Seeking the support of a self-driven and motivated government official(s) is especially important in the pilot phase of a programme, so it gets the right kind of push and direction from the official to create a proof of concept for later phases.

- **Creating championship within programme staff:** It is important to curate a team of motivated professionals on the ground who are driven by the programme's long-term vision and can effectively communicate the programme vision and needs to the officials.

- **Consulting government officials for programme planning:** When government officials are included in the process of solution building, the programme not only benefits from their knowledge but can also align with their interest areas. Championship of the officials comes with co-creation.

- **Organising field visits to show that the programme met success:** This helps the officials stay in touch with the programme's efforts and supports continuity in relationship.

iii. Bring recommendations from key influencers:

Trusted peers, officials, or politicians can influence government officials to support and/or champion the programme.

Such recommendations can come from different levels:

- **Horizontal recommendations:** When officials at the same administrative level nudge peers in favour of the programme, organisation, or staff.

- **Vertical recommendations:** When a senior-level official nudges the lower administrative levels in favour of the programme, organisation, or staff, or when officials or politicians closer to the ground (sarpanch, district collectors) push state-level officials to take up certain programmes by creating a bottom-up demand.

- Recommendations from **influential ex-bureaucrats.**

Trusted peers, officials, or politicians can influence government officials to support and/or champion the programme

(c) Create the urgency to act among government champions

Circumstances created due to changing political economy can enable championship among officials, as they feel a sense of urgency to improve certain situations.

A sense of urgency is created through:

- Increased awareness and pressure from the public on specific issues

- Advocacy by CSOs

B. Enable pathways for government support

Optimally use all existing pathways for the government to support scale-up of the programme

The possibility of institutionalising the programme within government departments increases when opportunities or mechanisms are available for the departments to support it. A programme can capitalise on the existing pathways (through convergence with policies, endorsements, infrastructural and technical support) and/or create new ones (through alternate institutions, new partnerships, schemes) to facilitate collaboration with different government departments.

1. Capitalise on the existing pathways

The first step towards ensuring government support is to optimally use all the existing pathways through which the government can facilitate programme implementation.

Some pathways that can enable government support are the following:

- **Converging with government schemes:** A programme can make use of the existing schemes that align with certain interventions. Convergence with relevant departments is important at all levels of governance, particularly at the village level. Clear guidelines on the responsibilities of each department are important for realising convergence. At the district level, there should be a clear action agenda for implementation of the programme and roles of different departments. At the state level, convergence requires compliance mechanisms and a monitoring and evaluation framework.

- **Receiving infrastructural support:** The driving organisation should look for infrastructural support from relevant departments, in the form of laboratories, machinery, and other equipment required for the programme implementation.

- **Receiving technical support:** The programme staff should engage the government institutions that are mandated to provide training and capacity-building workshops.

- **Receiving formal endorsements:** Publicly showing formal support, in the form of signed letters, and announcements is a way for the government to support the programme.

- **Facilitating allocation of human resources:** Officials can be deputed from certain departments to the ground or to institutions that specifically implement the programme, as per its needs. This facilitates knowledge transfer from the departments of the officials to the programme institutions. High-level government champions are required to make this possible.

- **Location of programme secretariat in government offices:** Such physical proximity with government offices increases the perceived ownership of the government of the programme in the eyes of the community and the other relevant government departments.

2. Create new pathways

New pathways can be created to receive the required government support. It is ideal to explore all the existing pathways before creating new ones, as the latter may be a resource- and time-intensive process.

➤ *See how APCNF created new pathways for the state government to support natural farming. (Annexure 5)*

Certain new pathways can be one of the following:

- **Dedicated implementation agency** with (partial or full) autonomy in programme implementation

- **New formal partnership with government departments, institutions, or officials:** Officials such as the District Collector, who has jurisdiction over multiple departments, are best suited to support such partnerships due to their structural powers. A retired government official would also be valuable as they would have shed departmental

Sustained leadership – continued and effective actions towards programmatic goals is an important driver of scale

Image: APCNF

III. Sustained leadership in the driving organisation

Sustained leadership refers to continued and effective actions towards programmatic goals by the programme driver. Leadership in the driving organisation should show involvement through all phases of the programme, even as the driving organisation changes. Consistent leadership throughout programme trajectory keeps the programme directed, thus enabling scaling up and sustenance. The following factors can enable sustained leadership.

A. Sustained value proposition for the leadership

Value proposition is the initiator's perception of the impact and feasibility of the programme. At every step of the programme, the leadership of the driving organisation needs to see value in the programme to continue action. As the programme, and its potential impact and feasibility, evolve, it may require a new set of leaders to continue. It is important for the leadership to identify an exit strategy before passing the programme on to a new set of leaders. To create and sustain value proposition, programme drivers should do the following.

1. Identify and act on opportunities

Collating information from various sources to identify and act on opportunities is a fundamental skill for leadership. These opportunities may serve short- and long-term programme goals. A continuous flow of opportunities helps in sustaining value proposition.

Read about how the leadership of the Ice Stupa programme identified and acted on the opportunities to address water scarcity and community-driven conservation in Ladakh. (Annexure 5)

Identification and creation of opportunities can be done by the following:

- **Strategic thinking:** Management training, team strategy meetings, and expert consultations that unlock long-term thinking can help incorporate strategic thinking in the programme pathway.

- **Networking:** Meeting stakeholders who engage in different programme areas can help find new opportunities to implement solutions or expand the programme.

- **Leadership skills:** Creating and installing skilled leaders on the ground and in programme management, who can network at various levels, helps to identify important opportunities.

B. Enable alignment between leaders, staff, and collaborators

Leadership should ensure alignment of the vision and implementation of the programme with the staff of the organisation as well as with external partners, who are responsible for programme implementation. This can be done through effective communication channels and monitoring mechanisms. Clear communication and relevant information enable effective and responsive decision-making by the leadership towards programmatic goals. Thus, programme drivers should engage in the following:

It is important for staff to formally share ideas with and give feedback to the leadership through bottom up communication channels

1. Ensure effective communication

Active communication allows both leaders and staff to present viewpoints, opinions, and concerns about the programme within the organisation and enables alignment among all the parties.

Effective communication can take the form of the following:

- **Top-down communication channels:** The executive management provides clear directions and plan of action to the staff throughout the programme trajectory.
- **Bottom-up communication channels:** The staff formally shares ideas and challenges with the executive management and each other. This acts as a feedback mechanism for the leadership.

2. Undertake monitoring and evaluation

The driving organisation needs to align with the external stakeholders to ensure that programme milestones are achieved according to established timelines. At the same time, the programme impact should be monitored and assessed regularly by the organisation. This enables the leadership to keep steering the programme towards their set objectives.

A few monitoring and evaluation mechanisms are suggested below:

- **Evaluation committees:** An organisation (such as a management board, programme monitoring committee) consisting of government officials, donors, key drivers, and community champions can facilitate such a process.

The programme drivers need to ensure a steady and stable flow of funds to scale up the programme

Image: Odisha Millet Mission

IV. Financial sustainability

Irrespective of whether the programme is in the pilot stage or has reached the national level, the drivers need to ensure a steady and stable flow of funds to enable scaling up the programme. Financial sustainability can be enabled by ensuring diversity and flexibility of funds.

A. Ensure flexibility in funding

A programme may have diverse and evolving needs at different stages. There may be a need to experiment with solutions in the early stages or the need to build institutional capacity of the initiator. Programme drivers can achieve financial sustainability by actively aligning with funding opportunities that serve these programmatic needs. Thus the programme drivers should undertake the following:

1. Partner with flexible funder

The programme leader needs to know when and where (in terms of activities or geography) the programme needs flexible funds and choose to partner with funders who are also flexible with funds. This is enabled when drivers do the following:

(a) Align programmatic vision with the donor

The donor needs to align with the vision and mission of the programme to the extent that they do not restrict fund utilisation and let implementers budget for activities as per programmatic needs. Drivers could explore philanthropies for flexible funding.

(b) Build trust

The driving agency needs to show the donor their institutional capacity to design and evolve a programme that creates the envisioned change. This can be done by presenting the success of past projects, clear communication of resources in place for the current programme, and regular monitoring, evaluation, and reporting of activities.

B. Bring funding from diverse sources

A diverse portfolio of funds (a) reduces the risks of insufficient funding and (b) fulfils different needs of the programme as it scales up. A diverse portfolio of funds can be created using a mix of government funds, philanthropic funds, corporate social responsibility (CSR) funds, and profits from programme activities, among others. The programme drivers should be focused on the following aspects:

1. Gain clarity on funding options

A diverse portfolio of funds is possible when the programme driver has knowledge of the different funding options available to finance their activities. This requires research, networking, and being on constant lookout for relevant opportunities.

Synergy between the core solution of the programme and its enabling environment drives its scale-up

A range of funding options are the following:

- Government schemes
- Crowdsourcing
- Loans (through national and international impact focused funds)
- Private companies (via CSR)
- Pooling money to create village development funds
- Blended finance
- Development funds
- Philanthropies
- Impact funds

Constantly monitor and evaluate results from the field to fix glitches of the programme throughout its trajectory

2. Build the trust of funding institutions

A funder will only be willing to invest their money in the programme if their interests align with programmatic goals, fund utilisation strategy, and the capacity of the institution to meet the desired objectives. Trust is key to any transaction, and it builds over time through communication and showing consistent positive results.

Image: APCNF

V. Sync between solution and enabling environment

Each core solution of the programme is implemented within a given context. A core solution refers to activities that the programme undertakes to solve given challenges and achieve the programme objectives. The enabling environment is shaped by the existing social structures, physical infrastructure, natural resources, and financial resource endowments, among others. Some aspects of this enabling environment are outside the scope of the intervention and beyond the agency or influence of the programme driver. For example, certain policy changes, presence of external stakeholders, and technological innovations that may affect the programme. On the other hand, core solutions are key programmatic solutions that the implementers have the agency to implement according to this context. For example, adopting a new technology for the sustenance of the programme, or partnering with stakeholders to increase market linkages for the programme.

A programme can scale up successfully by ensuring synergy between (a) the core solution of the programme and (b) its enabling environment. The programme drivers should undertake the following:

A. Bring suitable change to the enabling environment

This refers to changing some elements of the enabling environment or context of the programme such that it supports the core solution. For example, by strategically partnering with multiple stakeholders, who can improve availability of products and services essential for implementing the core solution, or by creating positive narratives about solutions through media, the driver can create an enabling environment to implement a core solution. Such changes reduce external risk and increase opportunities for scaling up. To bring changes in the enabling environment, the programme driver can do the following:

1. Apply systems approach

In systems approach, activities are undertaken after understanding the problems at a system level, and they are rooted in ground realities. It entails a long-term, macro understanding of how different factors, such as markets, technology, policies, and culture, influence each other along with clarity on their micro-level impacts. Based on such an understanding, the programme driver should aim at changing elements of the enabling environment to minimise the risks of failure. Such an approach needs to be applied throughout the programme trajectory. To enable it, drivers should do the following:

See how Odisha Millet Mission used systems approach in its pilot phase to create suitable changes in the enabling environment. (Annexure 5)

(a) Co-create with relevant stakeholders

Co-creating strategies with relevant stakeholders leads to an improved understanding of the challenges of the enabling environment and finding ways to change it. The drivers must do the following:

i. Engage constantly with all stakeholders across the value chain

It is also important to constantly communicate programme ideas and solutions to stakeholders across the value chain, as they can provide useful information and resources for programme implementation.

Create strategies with relevant stakeholders to understand and overcome challenges of the enabling environment

(b) Engage strategically with multiple partners

There is a spectrum across which the programme can engage with stakeholders. The spectrum ranges from transactional partnerships with external stakeholders that make programme implementation easier to forming consortiums for participatory research and other collaborations to change the elements of the enabling environment. An example of transactional relationship is the endorsement of a programme from an external stakeholder to create buy-in of funders, community, or government Whereas collaborative partnerships can enable research and development for new technology essential for the core solution. Strategic partnerships can be enabled when drivers accomplish the following:

i. Create value proposition for the partners:

Value proposition is a combination of the programme's impact and feasibility as perceived by the potential partners and their stakeholders. These stakeholders must constantly believe in the programme's value to continue engaging with it and supporting its scale-up.

ii. Build a positive narrative:

Targeted narrative building can be used to start the strategic engagement with the potential partners and their stakeholders. When a group of relevant stakeholders start believing in the programme, engaging them becomes easier.

Targeted narrative can be built through the following ways:

- Strategic communication with the main opposing parties
- Positive media coverage
- Evidence-based arguments
- Constant addressing of critique
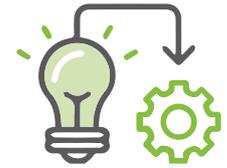
Implement activities after understanding the problems at a system level

B. Adapt the core solution

One of the ways in which the core solution can be in sync with the context is when the programme driver modifies the solution in line with the changing elements of the enabling environment. This can be done by adapting or customising the core solution, adapting or customising the core solution as new information emerges with respect to shifts in climatic conditions, socio-economic conditions, or technological innovations in the programme's geography. The programme drivers should do the following:

1. Apply systems approach

In systems approach, activities are undertaken after understanding the problems at a system level, and they are rooted in ground realities. It entails a long-term, macro understanding of how different factors, such as markets, technology, policies, and culture, influence each other along with clarity on their micro-level impacts. Based on such an understanding, the programme driver should adapt the core solution and intervene at multiple points across the value chain to minimise the risks of failure. Such an approach needs to be applied throughout the programme trajectory.

2. Co-create with the community

Co-creating solutions with the community that are aligned to their inclinations, needs, and knowledge enables affiliating with community members. Such solutions can then be efficiently implemented in collaboration with the community. To find the right solutions, co-creation should be done in line with the programme's strategies.

Some on-the-ground institutions with whom drivers can co-create, through consultations or group discussions, are the following:

- Youth groups
- Women-led SHGs
- Farmer cooperatives

3. Enable action learning for the programme

Action learning means fixing the glitches of the programme after its roll out. By constantly monitoring and evaluating results from the field, the programme initiator can judge whether solutions are feasible or not. Experimenting with different kinds of solutions, in collaboration with community members and partners, is a part of action learning. This requires an experimental approach from the pilot stage onwards where solutions can be tested in small batches.

Image: APCNF

A farmer, in Andhra Pradesh, adding natural mulch to her farm to retain soil moisture.

4. Conclusion and way forward

In conclusion, the scalability framework in its present form is a useful and non-prescriptive tool for a range of driving organisations aiming to create an impact in Indian agriculture. It offers these organisations insights into the successes of previous programmes and aids in decision-making across contexts and programme trajectories.

The framework has the potential to be further enriched on the following fronts:

4.1 Risks attached to each success factor

In expert consultations with the implementing agencies, the team identified many barriers that may inhibit the application of the key and sub-success factors presented in the framework. For example, a barrier to one of the mentioned pathways that could enable government support, converging with existing government schemes, could be a lack of alignment and/or collaboration between government departments that the programme wants to converge with. The programme should account for the risk of a potential contention between two departments before seeking to drive convergence.

4.2 Interconnections within the success factors

The framework is currently linear in nature. The hierarchical success factors present a picture where sub-factors at levels two, three, or below only seem relevant for their corresponding key outcomes. However, there could be many feedback loops within these sub-factors. For example, the championship of community members could also enable co-creation. There is scope to capture the key feedback loops, through further expert consultations and analysis, to develop a more nuanced understanding of this framework.

4.3 Weightage of the key and sub factors

Certain factors may be more relevant to an implementing agency than others in their given context. For example, an NGO driving a programme where there is a policy precedent may need to invest less effort in policy buy-in as compared to an NGO trying to gain the government's buy-in for their highly innovative programme. Different key and sub-success factors would carry different weight in varying contexts. One could create archetypes of such different contexts and/or driving organisations to enable users to prioritise relevant success factors.

Certain success factors may be more relevant to an implementing agency than others in their given context

Annexures

Annexure 1 Key words used to find initial case studies

sustainable agriculture initiative + India

community led social initiatives + Madhya Pradesh

bottom up social initiatives + scaling up + Maharashtra

bottom up social initiatives + scaling up + Jammu Kashmir

bottom up social initiatives + scaling up + Rajasthan

community led social initiatives + Rajasthan

community led social initiatives + Gujarat

community led social initiatives + North east India

community led social initiatives + Assam

community led social initiatives + Manipur

community led social initiatives + Himachal Pradesh

community led social initiatives + Uttarakhand

community led social initiatives + Uttar Pradesh

Annexure 2 Initial case studies

1. Odisha Millet Mission

2. Jharkhand Opportunity for Harnessing Rural Growth (JOHAR)

3. Community managed sustainable agriculture (CMSA) or Zero Budget Natural Farming (ZBNF), Andhra Pradesh

4. National Rural Livelihoods Mission (NRLM)

5. Poverty Alleviation Programme in Andhra Pradesh

6. Bihar Rural Livelihoods Promotion Society, Jeevika, Bihar

7. IFAD-NUS Minor Millets Promotion, Biodiversity International and MS Swaminathan reseach foundation

8. Sustainable Sourcing Program for Spices, Sustainable Agrigulture Network - Nestlé

9. Madhya Pradesh Rural Livelihood Programme

10. Project on securing nutrition, enhnacing resilience, GIZ India

11. Tasar Silk Value Chain Programme, PRADAN

12. Community managed sustainable agriculture, Center for Sustainable Agriculture

13. Economic Developemnt, Srinivasan Service Trust

14. SHG Bank Linkage Programme (SBLP)

15. Rural Financial Institutions Programme, Bank Sakhi initiative (RFIP)

16. Pudhu Vaazhvu Project Tamil Nadu

17. Targeted Rural Initiative for Poverty Termination and Infrastructure, Orissa (TRIPTI)

18. Scaling Ecosystem-based Adaptation to Climate Change in Maharashtra, WOTR

19. Upscaling Micro-irrigation Technology in Maharashtra, NETAFIM

20. Ice stupa project, Ladakh

21. SCALE, Primary healthcare delivery, Rajasthan

22. WASMO Rural Water Supply Programme, Gujarat

23. Agriculture and Horticulture, North East Initiative (NEI) of the Tata Trusts

24. Project ORCHID, Manipur, Nagaland

25. Eco-friendly tourism, Sunshine Adventures Haimachal Pradesh

26. Facilitating Agricultural Regeneration Measures (FARM) North East, Caritas India

27. Self Employed Women's Association (SEWA) Bharat

28. Developing Multipurpose Knowledge and Rural Tele-Centers, Society for Inclusive Development

29. Leh Livelihood Initiative, Himmothan (TATA trust)

30. Adapting to climate change in water management, Tarun Bharat Sangh

31. State Water Supply and Environmental and Sanitation Mission, Uttar Pradesh

32. Shivganga Jabhua, Jal Andolan

33. Bharat Bhushan Tyagi organic farming drive

34. Chitrakoot project, Watershed Management

35. ITC. E-choupal

36. Tomato Procurement, HUL

37. Safe Harvest

38. Hasiru Dala waste management programme

39. Amul milk cooperative

40. Adhimalai - shift the power to producers

41. Nandi Foundation, farmers' programme

42. Water stewardship programme, WOTR

Annexure 3 Questionnaire for case owners

1. Why did you start working on this issue? What was your objective?

2. What was your starting point for designing the programme?

3. What were the key reasons of successes and failures in implementing the pilot?

4. According to you, what key factors led to scaling up of the activities and programme?

5. Can you help us identify the different phases of the programme trajectory? Please specify the major activities of each phase, the aim of the phase, the value you drove from the programme, the timelines and scale achieved

6. What challenges did the programme face in scaling-up or replicating the initiatives? What were reasons of success foor each phase?

7. What would happen if your organisation exists from the programme field? Will the programme be self-operational? What is the exit strategy?

8. Can you tell us more about the major risks the programme continues to face and the strategies to minimise them?

9. Any other important aspects your would like to highlight that you think enabled scale and sustenance of the programme?

Annexure 4 Experts consulted

1. Srikanta Kumar Rouda, Head of Operations, The/Nudge Insititute, 9 Februrary 2022.
2. Minhaj Ameen, Director, Agroecology fund, 9 Februrary 2022.
3. Mr T. Nanda Kumar, former Secretary to Government of India, 8 March 2022.
4. Ms Sangeeta Agarwal, Sector Specialist - Natural Resource Management & Climate Change Adaptation, KfW Development bank, 10 March 2022.
5. Mr S. Vijay Kumar, Lead, Food and Land Use Coalition-India, 23 March 2022.
6. Mr K.M. Jayahari, Country coordinator, Food and Land Use Coalition-India, 23 March 2022
7. Food and Land Use Coalitions (FOLU) partners (Representatives from FOLU headquarters, FOLU-India, TERI, WRI India, RRAN), 12 Arpil 2022

Annexure 5 How success factors were achieved in select cases

01. How to create and maintain social capital within the community?

Establishing the community-run river parliament for the Arvari river basin management: an example from Tarun Bharat Sangh

In 1998, the 72 villages of Alwar in Rajasthan formed the Arvari *Sansad* (or parliament) to safeguard the revived river Arvari. Each village *gram sabha* sent two representatives to establish a body for safeguarding and sustaining the water commons. The parliament exemplifies how groups pursuing common interests can enable self-governance at the community level, as its members democratically decided the rules of river basin conservation and management. The programme has sustained and scaled up through active community ownership and exemplifies how to achieve institutionalisation of the programme at the community level through the creation and maintenance of social capital.

Jump back to social capital or read the case study on Tarun Bharat Sangh.

02. How to ensure functional markets for community-based organisations?

Establishing the tasar silk value chain by providing high-quality tasar seeds and enabling local enterprises to process silk: an example from PRADAN

In the 1980s, the tasar silk market was not taking off because of the low-quality products available in the market. Lack of demand meant lack of community interest to cultivate tasar. After many years of research, PRADAN understood the core reasons for this poor tasar market: low-quality seeds, a lack of willingness among producers to cultivate tasar in forest areas, and insufficient value addition to tasar silk. PRADAN worked towards building market-viable solutions by overcoming these specific challenges in the tasar silk value chain. PRADAN resorted to saving and distributing quality tasar seeds, finding the optimal environment for cultivating tasar (in this case, on *Arjuna* trees outside forest areas), processing raw tasar silk, and creating garments to generate a market for community members. Along with these efforts, community entrepreneurs were also developed by disseminating relevant training and resources to capacitate them to sustain the programme activities. Thus, PRADAN created market-viable solutions as well as suitable organisations using social capital in the communities to develop functional markets. Sales of tasar silk products also catered to the community needs of additional income. Currently, the self-governed institution, Tasar Development Foundation, oversees the maintenance of the value chain.

Jump back to ensure functional markets or read the case study on PRADAN's tasar silk value chain.

03. How to create new pathways for government support?

Creation of a dedicated implementation agency for natural farming in Andhra Pradesh: an example from APCNF

In order to scale up natural farming, the Andhra Pradesh government created RySS—a dedicated implementation agency for natural farming activities in the state —under the chairmanship of the Chief Minister. The programme leadership was able to obtain buy-in from the state's Agriculture Department, and the government, to create a dedicated agency for natural farming. It was a culmination of multiple efforts that had been undertaken in the past to scale up natural farming in the state. The programme management explored various pathways for the government to provide support. After reaching consensus that the goal of saturating all gram panchayats with natural farming would require consistent and independent effort at the state level, RySS was established as a 'new' pathway for the government to support this effort.

Jump back to create new pathways or read the case study on APCNF.

04. How to identify and act on opportunities?

Creating the case for artificial glaciers to address the community's need for water in Ladakh: an example from Ice Stupa

The leadership of the Ice Stupa programme – comprising engineer Sonam Wangchuk and his team from Ladakh's alternative school SECMOL – rigorously collected information on the growing water scarcity in Ladakh, the community's collective understanding of shrinking natural glaciers and the concept of artificial glaciers. They identified the need to improve supply of irrigation water to the community in summer months, and acted on the opportunity to build a functional, low maintenance and easily replicated artificial glacier called the ice stupa. The leadership took relevant support from the communities, religious leaders, the government and the armed forces, by forming a thorough knowledge base. Thus, they strategically created networks of stakeholders to drive the programme forward. The leadership used these strategic conversations to scale up the programme not only across Ladakh but also – through a series of partnerships – in mountainous regions across the world.

Jump back to identify and act on opportunities or read the case study on the Ice Stupa programme.

05. How to apply a systems approach?

Creation of complementary solutions to scale up millets in Odisha: an example from the *Odisha Millet Mission* (OMM)

In the pilot phase of the OMM, RRAN understood the ground realities of the area with respect to local millet demand, the capacity of the processing units, and traditional cultivating practices. Since only a few farmers produced millets in the pilot phase, it was important to create a market to further incentivise millet production. They arrived at systems-level solutions through multiple stakeholder discussions, involving the government officials at the district level, representation from schools, and community members. By understanding the diverse needs and aspirations of these stakeholders, they introduced suitable changes to the enabling environment to scale up their core solution of increasing millet production and consumption. Thus, RRAN intervened across the value chain; processing millets at a small scale and distributing them in schools was one way to enable market absorption and millet consumption.

Jump back to systems approach or read the case study on the Odisha Millet Mission.

Scan to read all the case studies

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Acronyms

APCNF	Andhra Pradesh Community-Managed Natural Farming
CSB	Central Silk Board
CSO	civil society organisation
CSR	corporate social responsibility
DC	district commissioner
FOLU	Food and Land Use Coalition
IFAD	International Fund for Agricultural Development
IT	information technology
IYM	International Year of Millets
MoRD	Ministry of Rural Development
MYRADA	Mysore Resettlement and Development Agency
NGO	non-government organisation
NRLM	National Rural Livelihood Mission
OMM	*Odisha Millet Mission*
PRADAN	Professional Assistance for Development Action
RRAN	Revitalising Rainfed Agriculture Network
RySS	Rythu Sadhikara Samstha
SAPSs	Sustainable Agricultural Practices and Systems
SHG	Self-Help Group
TBS	Tarun Bhagat Sangh
UNDP	United Nations Development Program
ZNBF	Zero Budget Natural Farming

Acknowledgments

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