



# Spreading the Gains of Agricultural Innovations in Africa: A Strategy to Scale-up and Scale-out the IAR4D Concept





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12 Anmeda Street, Roman Ridge

PMB CT 173, Accra, Ghana

2015

**Citation:**

Fatunbi A O, M T Ajayi, A Obi, G O Odularu and A A Adekunle, 2015. *Spreading the Gains of Agricultural Innovations in Africa: A Strategy to Scale-out and Scale-up the IAR4D Concept*. Forum for Agricultural Research in Africa (FARA), Accra Ghana.

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ISBN 978-9988-8515x-0-1 (print)

ISBN 978-9988-8518-4-8 (pdf)

This document has been produced with financial assistance from the European Union. The contents of this document are the sole responsibility of FARA and the authors; under no circumstances should it be regarded as reflecting the position of the European Union.

**Editing and design:** BluePencil Infodesign, Hyderabad, India ([www.bluepencil.in](http://www.bluepencil.in))

**Printing:** Pragati Offset Pvt Ltd, Hyderabad, India ([www.pragati.com](http://www.pragati.com))

# Contents

<b>Acknowledgements</b>	1
<b>Foreword</b>	3
<b>Chapter 1: Introduction and problem in context</b>	5
1.1 Background	6
1.2. Objectives	10
1.3. Methodology	10
<b>Chapter 2: Review of theories and concepts of scaling-up and scaling-out</b>	11
2.1 Introduction	12
2.2 Meaning and definitions of scaling up and out	12
2.3 History of scaling up and out	13
2.4 Theories of scaling up	14
2.5 Institutional approaches and organizational paths of scaling up	19
2.6 Theories of framework/approaches for scaling up	24
2.7 Chapter summary	30
<b>Chapter 3: Lessons from successful scaling-up projects</b>	31
3.1 Introduction	32
3.2 Success factors for scaling up initiatives	32
3.3 International experience with scaling up	33
3.4 Lessons from scaled up projects/programmes	33
3.5 Requirements for successful scaling up	35
3.6. Lessons learnt on agriculture, rural development and nutrition scaling up	39
3.7 Lessons from scaling up the Warmi Project	40
3.8 Lessons on creation of regional research and development platforms	43
<b>Chapter 4: Strategies for scaling-up and scaling-out of IAR4D Innovation Platforms</b>	45
4.1 Introduction	46
4.2 Innovation Platform process design	47
4.3 Scaling up elements of IAR4D	48
4.4 Factors favourable to successful scaling up of IAR4D IPs	55
4.5 Scaling up strategy	57
4.6 Type of scaling up	57

<b>Chapter 5: Conclusion and way forward</b>	61
5.1 Introduction	62
5.2 Summary	62
5.3 Conclusion	63
<b>Annex 1: Summary of the conceptual evolution of scaling-up</b>	64
<b>References</b>	66
<b>Acronyms and abbreviations</b>	71
<b>About the authors</b>	73

### **List of Tables**

Table 2.1: Understanding the difference and the connection between scaling up/out and horizontal/vertical scaling.	15
Table 2.2: Typologies of scaling up	17
Table 4.1: Chahi IP in Uganda	50
Table 4.2: Isangano Gataraga IP in Rwanda	50

### **List of Figures**

Figure 2.1: Scales of impact and processes of scaling-up. Source: Gündel, Hancock, and Anderson (2001). Large concentric circles show increasing scales and levels. Bubbles show examples of aspects considered at different scales and under different processes of scaling-up.	18
Figure 2.2: Organizational role in scaling up.	23
Figure 2.3: An overview of the scaling up process	26
Figure 2.4: Elements of scaling-up framework. Source: Simmons & Shiffman 2006	27
Figure 2.5: Scaling up of interventions to strengthen family planning services in China	28
Figure 2.6: The ExpandNet/WHO framework for scaling up	29
Figure 3.1: Backward planning model	37
Figure 4.1: Framework for IAR4D Innovation Platform (IP) Strategic Scaling Up and Scaling out. Adapted from Kaufman et al (2006) and ExpandNet (2010)	49

## Acknowledgements

The Forum for Agricultural Research in Africa (FARA), working with its forum members, has succeeded in initiating and proving the efficacy of the Integrated Agricultural Research for Development (IAR4D) concept as the preferred model for conducting agricultural research and development activities for good impact. The IAR4D concept represents a paradigm change in the way agricultural research and development activities are carried out in Africa. The concept has its main root in the innovation system approach, which is a multi-institutional, multi-stakeholder framework that has been successfully used in the industrial development era of the West. The initial hurdle was how to practically use the innovation systems approach in agriculture considering the uniqueness of the sector and its obvious dissimilarity with industry, especially in Africa. FARA thus developed the IAR4D concept as a way to implement the innovation systems approach for agricultural development. It was packaged as a project and FARA received the mandate from the development partners and its stakeholders to do a proof of the efficacy of the concept. This was carried out as the Sub Saharan African Challenge Program (SSA CP), and implemented in eight African countries as its pilot learning sites. The concept has been proven to be an efficacious model, with ability to rapidly take the smallholders out of poverty, through improved productivity, better access to market and efficient networking for sourcing solutions. It has also been proven to translate research outcomes to commercial benefit and development of new commodity value chain and creation of employment. The IAR4D concept stands as a good model to ensure public-private sector partnership in African agriculture. The knowledge on the practice of the IAR4D concept and the proof of concept has been documented in separate volumes.

This book addresses the need to scale the benefits of the IAR4D concept to a wider audience in African agriculture. This is in the light of the benefits it offers and the need to foster quick development of the sector. A unique strategy is needed and this book documents that extensively.

The authors therefore wish to acknowledge the contribution of the various institutions that contributed to the development and implementation of the IAR4D concept. The authors particularly recognise the contribution of the Sub-regional Regional Organizations in coordination of the pilot learning sites — Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricole / West and Central African Council for Agricultural Research (Senegal) (CORAF/WECARD), Association for Strengthening Agricultural Research in Eastern and Central

Africa (ASARECA), and the Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA). Equally commendable are the relentless contributions of the task force institutions — International Institute of Tropical Agriculture (IITA); International Fertilizer Development Center (IFDC); Institut National de la Recherche Agronomique du Niger (INRAN); Bioversity International; Makerere University, Uganda; Rwanda Agricultural Board (RAB); International Center for Tropical Agriculture (CIAT) and The International Maize and Wheat Improvement Center (CIMMYT).

The authors also wish to acknowledge the huge contribution of the program donors — the European Commission (EC), International Fund for Agricultural Development (IFAD), Italy Government, Government of Netherlands, Department For International Development (DFID), UK and the CGIAR.

Lastly, the contribution of over 200 researchers and development practitioners that contributed to the SSA CP project is highly recognised. You will agree with us that the number is too high to be listed in this one pager.



## Foreword

Agriculture plays an important role in the craving for the development of Africa, based on its position as the largest employer of labour on the continent. The productivity of African agriculture and its capacity to translate raw commodity to significant wealth through enterprise configuration is the only way to go. FARA has worked on this in the last decade, and with its constituents, has developed the Integrated Agricultural Research for Development (IAR4D) concept as an effective vehicle to translate the available technologies to diverse socio-economic benefits and expanded income through enterprise diversification. FARA has recently drawn up a Science Agenda for African Agriculture with its stakeholders having realised that the desired future of Africa agriculture is largely hinged on the quality of its science, among other considerations.

The gains of different products and initiatives developed and proved to have the potential to transform African agriculture will not be realised if the implementation is limited to pilot configuration. It is important to think about scale and take the benefits of the different models to reach a larger audience and stakeholder groups. The case of the IAR4D concept is unique and thus requires the attention devoted to it in this document. The concept aims to transform the linear configuration of ARD by conducting research using the innovation systems approach, where all actors along the specific agricultural system or commodity value chain are made to interact in the innovation process. Under this system, innovation does not follow the linear path that ARD traditionally follows: the product generation- technology transfer – diffusion – adoption continuum. Rather, it involves continuous interaction among players, utilization of feedback, analysis and incorporation of lessons learnt between different processes, thus, drawing on the knowledge of relevant actors at each stage. The network configuration combines the technical, social, institutional, and the economic aspects of innovations and facilitates timely interaction and learning with the ultimate aim of generating innovations rather than research products or technologies. This concept also demands changes in the wider institutional and policy environments to suit the requirements for systems thinking about innovation, evolutionary economics, and social learning separately to conventional thinking about agricultural research and development.

The IAR4D concept has generated a large volume of success stories on many Innovation Platforms where it was implemented for the proof of concept and on other platforms of complementary projects.

The real beauty of the IAR4D concept for African Agricultural systems can fully be realized when the concept is scaled up and scaled out. An important indicator of success for IAR4D is its ability to influence national, regional and international decision makers on the required changes in the institutional and policy status quo in agricultural research and development. This means that the IAR4D concept needs to be prominent in the on-going debates on agricultural development issues within the policy, academic and operational communities.

The existing knowledge for scaling is limited to scaling technologies, while there is a dearth of knowledge on scaling concept and framework. This book is addressing this lack of adequate knowledge on the framework and strategies for scaling up and scaling out an agricultural research and development concept. The book contains a rich synthesis of available information on the scaling strategies in agriculture. It documents the lessons learnt from the different strategies used in the past and develops a workable framework for scaling up and scaling out an agricultural research and development concept such as IAR4D. Its production entailed the drawing of lessons and knowledge from a series of consultations, discussions and stakeholder analysis sessions. It also involved rich literature work to draw existing knowledge on scaling concept.

This Book, *“Spreading the Gains of Agricultural Innovations in Africa: A Strategy to Scale-out and Scale-up the IAR4D Concept”* is therefore a guide tool for scaling the IAR4D concept and a reference material for the evolution of methodologies for scaling agricultural research and development.

It is expected that this book, which stands out as a crucial contribution to the thinking about bringing concepts to scale, will surely be of immense benefit to you. Wish you a happy reading.



**Yemi Akinbamijo, PhD**  
Executive Director FARA

## Chapter 1

# Introduction and problem in context



## 1.1 Background

Of late, the concept of “scaling up” has become increasingly popular in national development and policy circles and within the international technical cooperation circuit. The World Bank’s (2003) definition of “scaling up” as “to efficiently increase the socioeconomic impact from a small to a large scale of coverage” encapsulates the broad intentions of the development community in the wake of concerns raised earlier. A number of researchers have also come up with definitions which embrace aspects of the above. Charlotte (2013) defines scaling up as replicating and expanding pilot approaches, while at the same time transferring longer-term ownership to Government counterparts to ultimately bring about positive results for a greater number of children and women. Some view scaling-up in institutional terms and talk of scaling-up organizationally, management-wise and financially. Scaling up can also be done in terms of the dominant activity. It is also often regarded as scaling up when an explicit and systematic effort is made to influence public policy (Peter and David, 1994). It can be surmised that the concept “scaling up” is a synthesis of innovation, good practices and piloting, which all play a crucial role in the way a project’s development benefits are generated and distributed. The fact that for most countries on the continent, living conditions have taken a turn for the worst, particularly for the rural dwellers, means that aggressive but innovative ways of making sure projects support and benefit more people must be devised. The food price hikes that started in 2007/2008 are continuing and these have been joined by more recent socio-economic crises.

But the concept is by no means a new one. In fact, as far back as the 1970s, development and policy experts had grown weary of the linear, top-down approach that was failing to improve livelihoods and deliver the promises made to people at independence in the former colonies. Only pockets of success could be seen and the irresistible fact was that pauperisation and destitution of the masses was deepening. The fall-outs of the disenchantment that arose from this situation are all too well known, particularly in the spate of coup d’états that rocked the continent from the mid-1960s. According to Uvin and Miller (1994), the state sector (notably government) proved its crass incompetence when it came to the task of “creating development”, given their distance from the grassroots population, their rigidity and bureaucratic structure, and the fact that they are often controlled and manipulated by special interests and cronies. The development organizations that implemented projects using the top-down approach proved equally ineffective due to “lack of local institutional involvement”. All these concerns were articulated in the case made for the basic needs strategy, which called for the broadening of the reach of development assistance so that the impact could be felt more generally and all stakeholders be allowed to participate in the processes that lead to development.

The late 1970s and 1980s saw increasing focus on participatory development as one way to ensure that development dividends are shared more generally and broadly. According to Uvin and Miller (1994), this was manifested in the emergence of larger non governmental organizations (NGOs) implementing larger and more complex projects. But these NGOs soon proved incapable of effectively delivering on their mandates. It became apparent that they too lacked the absorptive capacity to utilise their much enlarged funding. Again, because

these NGOs often nursed a deep resentment towards the governments and frequently worked at cross purposes with them, they failed to positively influence the latter to provide the enabling policy environment that they needed to work more efficiently. This era ended with the poor being more marginalised than ever, a situation that was worsened by the deepening economic and financial crises that engulfed these countries in the closing years of the 1980s, culminating in the introduction of structural adjustment programmes (SAPs) that weakened the state even further and created more bottlenecks to development.

In and of themselves, most of these projects and their sponsoring groups have been phenomenal in demonstrating the efficacy of local action to address most of the problems that confront local people...

In the 1990s, the development community seemed to come full circle by adopting bits of both failed approaches to come up with an amalgam that recognises the necessity of the state sector and the crucial need for participation. The emerging model that Uvin and Miller (1994) characterised is that of a humanised state sector explicitly formulating pro-poor policies that include payment of transfers to the poorest of the poor while providing the enabling environment for the private sector to expand investments. On the other hand, much larger and better managed NGOs with highly skilled professional staff capable of mobilising and utilising considerably larger budgets are emerging. Where these two strands meet is a more scaled-up interface that features increased size of entities and budgets, greater complexity and competence based on superior skills, and definitely promising greater impact and interaction.

Without question, these problems will not go away without a radical change in the way development is conducted. What has been happening in the 2000's combines almost all possible options in a confusing mix that raises the grim images of the "Tropical Gangsters" which Klitgaard (1990) aptly described for the development scene in Equatorial Guinea and which Ferguson (1990) termed "The Anti-Politics Machine" in respect to the development practice in Lesotho. For the most part, small pilot projects have mushroomed while groups operating at the grassroots with an agenda to improve rural livelihoods have increased in number. In and of themselves, most of these projects and their sponsoring groups have been phenomenal in demonstrating the efficacy of local action to address most of the problems that confront local people, particularly in terms of access to resources and markets and the productivity of the farms from which they derive their livelihoods. Almost without exception, these projects are experimental, implemented on pilot basis, and framed within a technical assistance programme with a duration of generally less than 5 years. Importantly, the projects embrace only a small fraction of the relevant target group. Again, most projects are linked to a political programme which the political leader must prove to be effective within his or her tenure. Probably in the spirit of the much lauded programme approach, the international donor agencies align their interventions with the national programme frameworks, since that is the basis on which they are evaluated.



Within the narrow confines of the short-term objectives they define, these projects are considered successful because they have managed the financial resources properly and delivered on the promised output and income increase for the defined beneficiaries. But in terms of the broader development impact, nothing would have been achieved since only a small group of rural households would have been involved. It thus becomes clear that innovation is not enough. Poverty can persist despite advances in science. In fact, as Thurow (2012) has noted, the paradoxical situation of “hungry farmers” continues to be one of the “most confounding” facts about sub-Saharan Africa (SSA); farmers are the producers of food and, if nothing else, can at least feed themselves, but apparently not in Africa. This is all the more troubling in the light of the progress made in improved technologies that have produced phenomenal yield increases. The world has realized that for innovation to translate into improved welfare, the scale of adoption has to be increased.

The earliest formal analysis of scaling up is thought to have been in the presentation made by Robert G. Myers to the Inter-Agency Meeting on Community-based Child Development as part of a UNICEF contribution on “Going to Scale” (Myers, 1983). This received instant endorsement from several organizations, notably the Carnegie Corporation, the World Bank, the Aga Khan Foundation and the World Health Organization (WHO). This pioneering effort has sparked off intense activities in addressing the observed gaps. The positive developments today include the fact that several multilateral bodies are joining the fray and devoting ample resources to developing assessment and measurement procedures, understanding the obstacles to scaling up and identifying strategies for addressing the question of scaling up of



development programmes. For instance, the International Fund for Agricultural Development (IFAD) has made “scaling up” a central pillar of its interventions with substantial funding and administrative and coordination mechanisms being mobilised for that purpose.

More recently, the International Food Policy Research Institute (IFPRI) has spearheaded discussions to redirect attention to the concept and build up knowledge about its relevance as well as capacity for planning and implementing the process of scaling up. With countries still struggling for budgets, the prospects for enlarging development resources are not looking good. The whole logic of development support should be revised to focus on effectiveness rather than the narrow measures of project worth that have little to no relation with substantive impact on livelihoods. A fundamental shift is required in the design of projects to delink them from issues that are peripheral to the real needs of the people. The timeframe for implementation of projects and the tenure of project staff must be synchronised to remove the spectre of discontinuity that plagues most projects. The continuing state of squalor and pangs of hunger in low income communities draws attention to the relative need for an appropriate scaling up pathway that will be an integral part of rural development strategies to trim down rural poverty and encourage broad-based rural development (World Bank, 2002).

Despite so much know-how built up over many years of project design, management and implementation to address the continuing development challenges in Africa, serious concerns remain in a number of crucial areas. The short-term view of development interventions still persist. Several development agencies are still conducting small-scale projects that affect only a small segment of the population in many countries. For the most part, development organizations avoid complex issues and focus on what might be termed the “low-hanging fruits” of development challenges. On the contrary, the development canvas, especially for Africa, is a very complex one for which robust and sophisticated approaches are imperative. Experience has shown that the piecemeal perspective of past and current approaches cannot suffice. According to Adekunle (2014), it has been shown that farmers do not benefit from research because of a fundamental error in the mechanism used to conduct the same. Ironically, many agencies that have come up with path-breaking technologies have continued to use the same piecemeal perspective to transmit their results. In recent years, the development community has jumped on the “scaling-up/scaling-out” bandwagon as a panacea to extend the benefits of technologies and innovations to more farmers than has been the case in the past. But in practice, many of these agencies are just “scaling-up/scaling-out” in name only and bear no resemblance to the actual concept. When some agencies are actually implementing “diffusion of innovations”, they often pass them off as “scaling-up/scaling-out” (Ajayi, 2014). Invariably, “they are using the same approaches that did not help our farmers out of poverty;

The proof of concept studies carried out across the continent in 36 Innovation Platforms/ Learning Sites (IPs) have proved conclusively that the IAR4D is a more robust mechanism for dealing with the multifarious problems that farmers confront.

that did not help our farmers to access the technologies that have been developed” (Adekunle, 2014). The proof of concept studies carried out across the continent in 36 Innovation Platforms/ Learning Sites (IPs) have proved conclusively that the IAR4D is a more robust mechanism for dealing with the multifarious problems that farmers confront. All the things mainstream methodologies and approaches set as goals (notably employment creation, development of small scale enterprises, reduction of hunger and promotion of food security) are already being achieved with ease on the Innovation Platforms. As Adekunle (2014) articulated, “From the value addition end, enterprises are springing up and becoming more robust and the IP’s are strengthening those entrepreneurs who are supplying inputs... We create jobs for youths and women in the villages, better than other approaches”. The irony is that the scaling-up literature and debate seem to have completely ignored these developments and path-breaking achievements. This trend must be reversed and the success stories need to be told in ways that are emphatic and bold and serve as blueprints for the development of the continent and for ensuring that the goal of making poverty history does not remain a pipedream.

## **1.2 Objectives**

The general objective of the present study is to examine the scope for scaling up the IAR4D and IP concepts as a means to institutionalize and mainstream these concepts into the existing Agricultural Research and Development (ARD) structure in Africa. Specific objectives include;

- Studying the existing theories of scaling concepts and technologies and synthesising a comprehensive report on the theory of scaling as an international public good.
- Understudying successful scaling endeavours for technologies and concepts in other parts of the world and documenting the lessons and the pathways for their success.
- Developing a strategy for the scaling of the IAR4D concept.

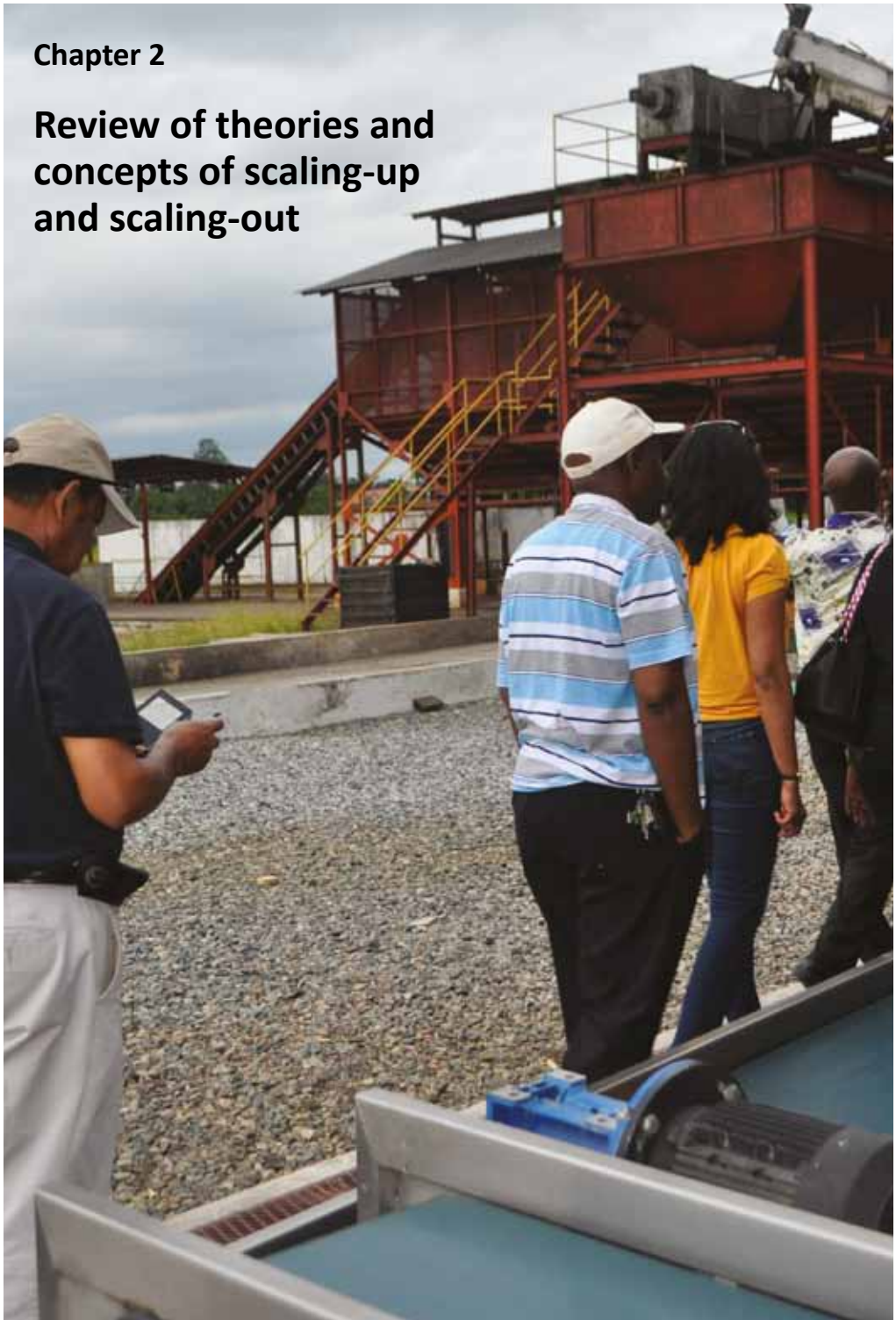
## **1.3 Methodology**

This assignment has been based entirely on desktop research to review and analyse official and common-interest literature on the subject. In addition to the literature review and document analysis, on the subject of scaling up, especially studies that are completed in the last two or three years. A half-day workshop was conducted at the Department of Agricultural Economics & Extension of the University of Fort Hare and participants, including advanced students and academic staff, were given the opportunity to discuss the specific themes of the rationale, structure, obstacles and constraints and strategies for implementation. The preliminary indications were presented in Johannesburg on 26 November 2014 at the sub-Saharan Africa Challenge Program Colloquium during the Forum for Agricultural Research in Africa (FARA) celebrations (25-28 November 2014).



## Chapter 2

# Review of theories and concepts of scaling-up and scaling-out



## 2.1 Introduction

For effective strategy development, it is important to understand and clarify the underlying conceptual and theoretical underpinnings of the phenomenon under investigation. In this respect, this chapter begins by presenting the definitions of scaling up and how it has been conceived and operationalised. The chapter then attempts to explore the history of the concept and how it has been incorporated in the academic and development literature. The specific objectives of the study require that the existing theories be surveyed with respect to particular technologies being promoted and to synthesise these into a comprehensive report in which scaling up is recognised as an international public good. The next task in the chapter is to study successful scaling endeavours for technologies introduced and popularised elsewhere in the world and to identify the key success factors in those particular contexts. Finally, the chapter examines other attempts at strategy development that will be relevant in the context of the IAR4D concept.

## 2.2 Meaning and definitions of scaling up and out

Scaling up means expanding, adapting and sustaining successful policies, programmes or projects in different places and over time to reach a greater number of people.

Many authors have adopted different meanings and dimensions for the concept of scaling up and scaling out. According to Wigboldus and Leeuwis (2013), different definitions and interpretations of scaling up in different disciplines, different sectors and even within the same sectors (such as within the context of international development) have been found. According to them, scaling up has been the most common title used for the concept and rarely can 'scaling out' be found in a title. Similarly, Menter *et al.* (2004) noted that there has been a rise in interest in the subject in areas of development and natural

resource management and, to some extent, in agricultural research.

Simmons, Fajans, and Ghiron (2007) defined scaling up as efforts to increase the impact of innovations successfully tested in pilot or experimental projects so as to benefit more people and to foster policy and programme development on a lasting basis.

The World Bank (2005) felt that scaling up is not only about projects, but could also be done in relation to programmes and policies. It therefore noted that 'scaling up means expanding, adapting and sustaining successful policies, programmes or projects in different places and over time to reach a greater number of people'. The dominant view however, remains that scaling up applies only to tangible projects. The World Bank view actually contrasts with the widely used definition proposed by International Institute of Rural Reconstruction (IIRR 2000) which states that 'scaling up brings more quality benefits to more people over a wider geographical area, more quickly, more equitably, and more lastingly.'

However, as a result of major concerns of the NGO community as to the issue of equity and speed in IIRR's definition, Hatmann and Linn (2008) explained that this can be relevant where interventions are principally designed to reduce inequities and poverty. However, this need not be the case for all development programmes and policies.

### 2.3 History of scaling up and scaling out

Literature has shown that the issue of scaling up development interventions has been a major discussion topic for at least the last two decades. The terms scaling out and scaling up first appeared in rural development literature in the 1990s in relation to expanding the practice of participatory research and extension and community development projects (Millar and Connell, 2009, Wigboldus and Leeuwis, 2013). International organizations such as the World Bank, IFAD, WHO and UNDP are among the most prominent proponents of an increased focus on scaling up in order to enhance development impact (Wigboldus and Leeuwis, 2013).

Some analytical work on 'going to scale' in development programmes was undertaken by Korten (1980). In 1983, Myers (1983) contributed to the discourse in a presentation he made to the Inter-Agency Meeting on Community-based Child Development which was then a preoccupation of the UNICEF. As participatory approaches began to prove effective at a local level, development organizations began to institutionalise learning and methods on a larger scale in order to cover more projects and locations (Chambers 2005).

IIRR (2000) described some key principles which have generated wide discussions while Hancock (2003) also developed a conceptual framework for scaling up rural development activities. Similarly, Binswanger and Aiyar (2003 and 2005) developed a framework for scaling up community-driven development programmes.



A management framework for scaling up pilot projects that is not limited to any specific sector was developed by Cooley and Kohl (2005) in addition to the multi-sectoral case study undertaken by the World Bank in 2005 which has been found to be very useful by many practitioners.

Scaling up has not been limited to the developing countries alone. According to Hatmann and Linn (2008), scaling up and expansion of social programmes have been explored particularly in the United States, where a multitude of domestic social services are provided through non-governmental organizations and funded by private support. The evolution and concept of scaling up developed by UNDP is shown in Annex 1.

## 2.4 Theories of scaling up

According to the UNDP (2013), scaling up processes can take many forms and range from national outreach covering the entire population to a policy reform spurred by a successful pilot. This can take the form of expanding, replicating, adapting and sustaining successful policies, programmes or projects in a geographic space and over time to reach a greater number of rural and urban poor.

Gundel, Hancock and Anderson (2001) see scaling up as embracing the two dimensions of project expansion to cover a wider audience or clientele and bringing about institutional change. These two dimensions have generally been referred to as horizontal scaling up and vertical scaling up and are elaborated upon as follows:

- Horizontal scaling-up is the geographical spread and expansion to more people and communities within the same sector. It could also be referred to as a scaling-out process across geographical boundaries.
- Vertical scaling-up is expansion higher up the ladder. It is institutional in nature and involves other sectors/stakeholder groups – from grassroots organizations to policy-makers, donors, development institutions and international investors.

In their own contribution, Menter *et al.* (2004) explained that scaling up is both horizontal and vertical with the former referring to adoption and the latter to institutionalisation. According to them, horizontal scaling up is also known as ‘scaling out’. Thus, they proposed an equation as:

Horizontal scaling up = scaling out = adoption, and

Vertical scaling up = institutionalisation = decision making at higher levels.

Menter *et al.* (2004) also distinguished between ‘horizontal scaling up’, ‘vertical scaling up’ and ‘institutionalisation’. According to them, ‘horizontal scaling up’ is a geographical spread to cover more people and communities through replication and adaptation, and involves expansion within same sector or stakeholder group. The decision making is at the same social scale where institutions are convinced to accept and internalise the underlying principles of an innovation so that these remain as guiding principles of practice even after the initial innovative project or programme has come to an end. Menter *et al.* pointed out that integrated agricultural research

outcomes differ in many respects from the process of disseminating a new variety because these complex research outcomes involve the end-users and work with several different components of a complex system, wherein immediate research outcomes may be less applicable for others.

Scaling out will mean replication, copy-paste, more of the same, expansion, extension, adoption, dissemination, transfer (of technology), mainstreaming, roll-out, or multiplication

Vertical scaling up refers to expanding an innovation beyond the original participants and objectives. This almost certainly implies an increase in the geographical scale of the project in which the technology is adapted and applied. However, the key variable is that decisions are being made at a higher level. The sustainability condition within scaling up implies leaving people with the adaptive capacity to deal with problems as they arise.

Institutionalisation occurs when the development of adaptive capacity involves a range of activities, including training; building networks, creating functional organizational structures, and gaining institutional support to have the innovation become an internal part of an institution in a sustainable way. This implies not only a change in the way people work, but also a change in the written and unwritten rules of the institution and a change in the way people within that institution think.

As a result of this, Menter *et al.* (2004) concluded that scaling up requires adapting knowledge and innovations to end-users, be they farmers or institutions, and to variable conditions. They went further to indicate that scaling up requires adaptation of innovations, understanding of underlying principles, capacity building and substantially greater investment.

In a similar vein, Wigboldus and Leeuwis (2013) explained the difference and the connection between scaling up/out and horizontal/vertical scaling as shown in Table 2.1.

**Table 2.1: Understanding the difference and the connection between scaling up/out and horizontal/vertical scaling.**

	Scaling out	Scaling up
Horizontal scaling	Multiplication at same scale level (e.g. spreading processes, such as wider adoption of technology or institutional arrangement within the same district.)	Innovation/development (institutional/technological/ etc.) at same scale level (e.g. from local cooling system to local dairy business hub, or from local regulation to local regulatory framework.)
Vertical scaling	Multiplication towards different scale levels (e.g. extension processes, or policy adoption of local practice towards country- wide application.)	Innovation/development (institutional/technological etc.) towards different scale levels (e.g. from local dairy business hub to national fresh-food system, or from local regulatory framework to national policy.)

Source: Wigboldus and Leeuwis (2013)

Wigboldus and Leeuwis (2013) also indicated that in actual fact, scaling out refers to quantity while scaling up refers to quality (properties). They also indicated that, based on the object of scaling, ‘scaling out will mean replication, copy-paste, more of the same, expansion, extension, adoption, dissemination, transfer (of technology), mainstreaming, roll-out, or multiplication’





and scaling up will mean ‘transition, institutionalisation, transformation, integration, incorporation, evolution and development’.

In an earlier opinion on the matter, Lobo (1995) points out that the processes of horizontal and vertical scaling up have to be linked in order to achieve sustainable impact. He argues that scaling individual success stories to a larger scale calls for a perspective of macro-management which has to be rooted in and responsive to the micro-level. Unless there is continuous and enabling cooperation between the key sectors and actors, such a process would be bound to come apart, thus

seriously jeopardising sustainability as well as ability to replicate.

#### *2.4.1 Scalability*

In regard to whether to scale up an innovation, Hatmann and Linn (2008) indicated that not all innovations can be scaled up. According to Cooley and Kohl (2005), scaling up should only take place after the model/pilot conducted on a limited scale has been evaluated and found to be effective and efficient, and after adapting and, where appropriate, simplifying, the model to focus on those aspects critical to its successful scaling up. However, IFAD (2010) indicated that scaling up involves two types of possible errors:

- Type 1 error – too little scaling up; and
- Type 2 error – the wrong scaling up.

Much attention in the scaling up literature and also in this review of IFAD’s experience focuses on the prevailing lack of attention to scaling up – what IFAD refers to as a Type 1 error. But there are also cases where scaling up takes place, but is done in the wrong way – Type 2 error.

Wigboldus and Leeuwis (2013) also pointed out that in AR4D, natural scaling processes are connected to social scaling processes. This is because a particular agricultural practice may be deemed scalable because of its natural properties (e.g. removing virus-infected leaves from sweet potato plants is something that could be done in many places), but because of cultural preferences, it may not be scaled up.

Cooley and Kohl (2006) identified a set of conditions necessary to effectively scaling out an innovation. In their view, for effective, error-free scaling up to happen, the innovation must be:

1. **Credible**, based on sound evidence or espoused by respected persons or institutions
2. **Observable**, to ensure that potential users can see the result in practice;

3. **Relevant**, for addressing persistent or sharply felt problems
4. Have a **relative advantage** over existing practices
5. **Easy to transfer and adopt**
6. **Compatible** with existing users' established values, norms and facilities;
7. Able to be **tested and tried** without committing to the potential user the complete adoption when the results have not been seen.

#### 2.4.2 Dimensions of scaling up and out

Scaling up rarely occurs in one dimension only. As programmes scale up quantitatively and functionally, they need to scale up politically and organizationally. According to IFAD (2010), scaling up pathways can follow different 'dimensions': they may simply expand services to more clients in a given geographical space. They can also involve 'horizontal' replication, from one geographical area to another; 'functional' expansion, by adding additional areas of engagement; and 'vertical' up-scaling, i.e., moving from a local or provincial engagement to a nationwide engagement, often involving policy dialogue to help achieve the policy and institutional conditions needed for successful scaling up.

Gundel, Hancock and Anderson (2001) presented a framework for the dimensions and approaches to scaling up as shown in Table 2.2. The table attempts to demonstrate the different scales on which research projects and outputs have a potential impact. These range from family level impact to an impact on a national scale or beyond. Secondly, the table also shows how the different processes of scaling up can lead to quantitative or qualitative changes. That is, horizontal scaling up is about involving more people at a certain scale, whereas vertical scaling up is about involving different stakeholders across different scales. Thus, one is about expansion and increase of coverage while the other is about entrenching and institutionalising the concept or practice.

**Table 2.2: Typologies of scaling up**

Type	Description	Alternative terms
Quantitative scaling up	'Growth' or 'expansion'; increase the number of people involved through replications of activities, interventions and experiences	Dissemination, replication, 'scaling-out' or 'horizontal scaling-up'
Functional scaling up	Projects and programmes expand the types of activities (e.g. from agricultural types of activities, intervention to health, credit, training)	'Vertical scaling-up'
Political scaling-up	Projects/programmes involving service delivery and geared towards change in structural/institutional changes	'Vertical scaling-up'
Organizational scaling-up	Organizations improve effectiveness to allow for growth and through increased financial resources staff training, networking, etc.	'Institutional development'

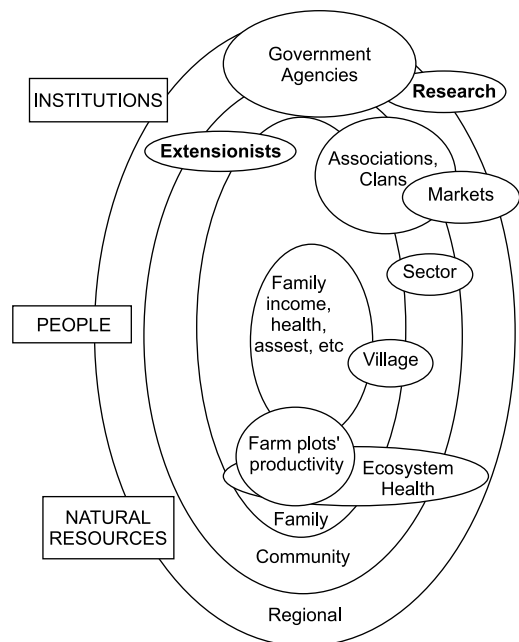
Source: Gundel, Hancock and Anderson (2001)

In a similar vein, Uvin (1995) identified four different dimensions of scaling up as quantitative, functional, political, and organizational. He explained them as follows:

- Quantitative scaling up is the geographical spread to more people and communities within the same sector or functional area. It is also referred to as *horizontal scaling up* or *scaling out*. It occurs when a programme expands its size by replication in different places or by increasing its beneficiary base in a given location.
- Functional scaling up is expansion through increasing the scope of activity. For instance, a programme initially specialising in agricultural development may add nutrition, health or literacy activities.
- Political scaling up refers to expansion through efforts to influence the political process and work with other stakeholder groups, with state agencies, parliamentarians and political parties, etc. Uvin mentions that through political scaling up, individual organizations can achieve greater influence, protect their efforts from countervailing political interests and affect political and institutional change that sustains scaled up interventions.
- Organizational (or institutional) scaling up means the expansion of the organization implementing the intervention, or the involvement of other existing institutions, or the creation of a new institution. This can involve both horizontal and vertical organizational expansion, the former involving similar institutions while the latter entails going up the ladder from community to local to regional to national (and in some cases even supra-national) institutions.

However, Management Systems International (MSI 2012) indicated that the extension of a pilot project's services or benefits can occur along any of the following five vectors:

1. Geographic coverage (extending to new locations)
2. Breadth of coverage (extending to more people in currently served categories and localities)
3. Depth of services (extending additional services to current clients)
4. Client type (extending to new categories of clients)
5. Problem definition (extending current methods to new problems)



**Figure 2.1: Scales of impact and processes of scaling-up.** Source: Gündel, Hancock, and Anderson (2001). Large concentric circles show increasing scales and levels. Bubbles show examples of aspects considered at different scales and under different processes of scaling-up.



## 2.5 Institutional approaches and organizational paths of scaling up

Hatmann and Linn (2008) posited that appropriate institutional approaches and organizational paths must be chosen depending on the development intervention to be scaled up. This is because according to them, different development interventions have different institutional needs. Some may be designed and implemented through a top-down approach while others may be deeply embedded in the local communities and based on the inputs and thrust of the people involved. Hatmann and Linn (2008) therefore highlighted three types of institutional approaches for scaling up: hierarchical, individualistic and relational. They also highlighted three types of organizational paths which are expansion, replication and spontaneous diffusion.

Hatmann and Linn (2008) therefore highlighted three types of institutional approaches for scaling up: hierarchical, individualistic and relational.

Hierarchical approach is seen as one that involves top-down, planned programmes and is often driven by strong central leadership. On the other hand, individualistic approach is one that looks at society as being made up of individuals motivated by self-interest and effective development is therefore largely the result of individuals' actions, mediated in a market place for goods, services and ideas. Also, the individualistic approach stresses the need for effective incentives and accountability for individual actors.

Finally, the relational approach views society as a set of networks, social links and informal groupings which aim to promote the accumulation of social capital through decentralisation, participatory methods and empowerment techniques. However, Hatmann and Linn (2008) concluded that in practice, elements of all three approaches are best combined for successful scaling up as individualistic and relational approaches cannot achieve scale and be sustained without some form of institutional support and well planned processes.

As regards organizational paths, expansion can involve scaling up a pilot within the organization that developed it, possibly along with organizational reforms such as decentralisation or restructuring. While expansion path has the advantage of allowing for uniformity of approach, it is believed to be generally limited to cases where a hierarchical approach is feasible. This is because in most other situations, organizational inefficiencies that come with increasing size and lack of adaptation to contextual differences make the expansion model problematic. Furthermore, the organization that invented or tested the pilot may not be interested in or capable of managing the transition to a larger scale (Cooley and Kohl, 2005). In those situations, replication is seen to be the better option (Hatmann and Linn, 2008).

To Hatmann and Linn (2008), replication means scaling up by groups other than the organization that originally developed the pilot or model intervention. This assertion was supported by Cooley and Kohl (2005) who pointed out that replication can occur between organizations of the same type, e.g., NGO to NGO or government to government, or between organizations of different types, e.g., NGO to government. Similarly, local and provincial governments as well as NGOs and the private sector can replicate successful initiatives. Spontaneous diffusion,

Fiscal allocations for scaling up programmes need the support of the political leadership, of elected parliamentary bodies, where they exist, and of a variety of stakeholders.

on the other hand, seems to involve the spread of good ideas or practices largely of their own accord. It may be so groundbreaking, involving such pioneering technology and meeting such pressing needs, that the innovation proliferates seamlessly from person to person, organization to organization and country to country. Hatmann and Linn (2008) indicated that the Green Revolution is an example of successful diffusion of innovation but it requires functioning extension systems. Without such systems, agricultural innovations are difficult to spread and unlikely to be adopted.

Hatmann and Linn (2008) also indicated that the drivers for scaling up are ideas, vision, leadership, external factors and incentives and accountability. They concluded that programmes to be scaled up should include the three key determinants for functioning accountability mechanisms: (i) availability and use of information; (ii) mechanisms for monitoring and performance; and (iii) the existence of adequate incentives for compliance.

In addition to having appropriate approaches, paths and drivers for scaling up, Hatmann and Linn (2008) posited that there is a need for interventions/innovations to have room to grow. This may involve replacing existing institutions, activities, policies and expenditure which can affect the scaling up programme. Seven spaces have been found relevant to the scaling up of innovation/intervention. These are fiscal, political, policy, organizational/capacity, cultural partnership and learning spaces.

Though research on the cost implications of scaling up has been limited, it has been found that scaling up programmes will require more financial resources to meet capital outlays and increased operating and maintenance expenditures. However, fiscal expenditure implications need to be assessed before scaling up is attempted, including a realistic assessment of whether unit costs will increase or drop as innovations expand, as lack of funding for the scaling up process and uncertainty of funding may be as much of a constraint as lack of overall financial resources.

There is a theory that costs of enlarged programmes may be prohibitive or unsustainable because pilot projects rely on expensive technology, inputs, staff and advisers or on special provisions of public infrastructure which could not be replicated on a larger scale (Hatmann and Linn, 2008). It is suggested that if scaling up efforts are supported by donors, there is a need to address the issue of financial resource sustainability after they have withdrawn their support.

Fiscal allocations for scaling up programmes need the support of the political leadership, of elected parliamentary bodies, where they exist, and of a variety of stakeholders. More generally, scaling up requires finding ways to make political space for the programme (Hatmann and Linn, 2008). Political outreach, constituency building and proactive advocacy are generally required, including lobbying to influence policy makers, training civil servants, mobilising the media and networking via professional and political channels. Kohl (2007) also indicated that for programmes to be expanded and sustained, political support needs to be secured through

explicit strategies of advocacy that are built early on into the scaling up process. Advocacy often needs to be built around individual champions, but it should aim to create broad coalitions, as sustainable programmes require constituencies that reach beyond individual actors. It should focus not only on the key ministers of the day, but should seek to build coalitions of stakeholder support and political commitment that outlast particular ministerial appointments and government administrations. This is because political parties move in and out of power, but scaling up is a long-term process and the agenda needs to be broadly anchored in the political system. However, it is pointed out that the risk of using scaling up processes to secure political advantage should be avoided.

Another risk in the political process is known as ‘elite capture’. By necessity, community based programmes have to draw on local elites for effective design and implementation. These elites may use their position to over-provide social services to themselves and their families and friends or otherwise channel public money and resources for their own benefit (Bardhan and Mookherjee, 2006).

Literature has also shown that innovations/programmes to be scaled up must have policy, regulatory and legal framework support. According to Hatmann and Linn (2008), regulatory interventions, administrative inspections and corrupt practices by government officials frequently prevent scaling up by private businesses and, therefore, for scaling up to be successful, there is a need to combine it with reforms in the policy environment. Institutions lacking the capacity to operate the larger programme can be serious obstacles to scaling up. There are two problems involved in this: organizations’ unwillingness to carry through the required change needed to create the capacity for scaling up and lack of skills, systems and manpower to manage the enlarged programme.

According to Simmons and Shiffman (2006), there are two different organizational roles involved in scaling up. These are the role of the “originating” organization that develops and



pilots the model, and that of the “adopting” organization which takes the model to scale. As a result, Cooley and Kohl (2005) have suggested that it would be helpful to use an intermediary institution between the originating and the adopting organization. This intermediary organization would be a process facilitator focused on the scaling up only.

One other theory about organizational/capacity space is that adopting organizations can be set up specifically for the purpose of scaling up an intervention or they can already exist. Creating new institutions often involves lengthy start-up periods, while using existing organizations to adopt new programmes means that they may have to accept significant institutional change to succeed. Such changes may be resisted by the managers and staff of the adopting institution if they displace well known, old ways of doing business. At the same time, the leaders and staff of the originating institution may resist handing off the programme, since they feel they “own” the initiative. Public sector and NGO workers alike, whether teachers, health workers or extension agents, may fear losing their jobs when they hand off a programme, or resist new demands on their time and energy when adding a new programme. Competing bureaucracies or civil society organizations may act as rivals rather than collaborators, undermining the scaling up process by fragmenting it institutionally rather than creating synergies through bundling efforts.

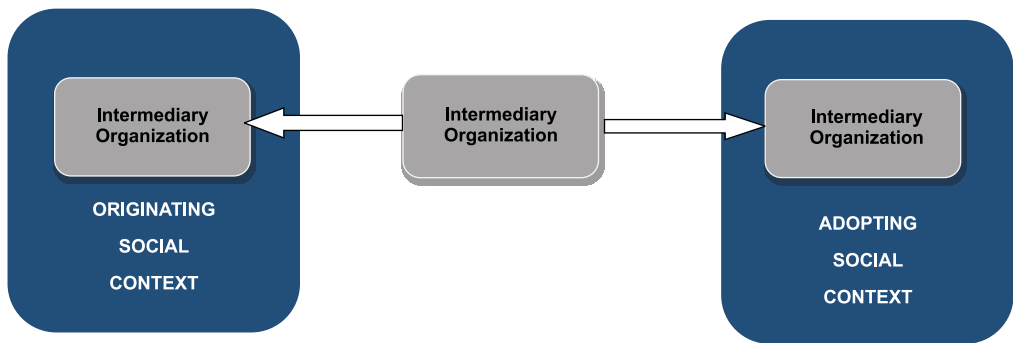
There is no clear guidance from the literature on whether to go with new or existing institutions in scaling up. While some authors advocate building on past experience and utilising existing ones, others emphasise the need to draw on or create new institutions in the scaling up process, as those involved in the original pilot phase may be unwilling to adjust and carry out required changes (Hatmann and Linn, 2008).

However, most scaling up discussions assume that the originating organization is also the one that does the work needed to transfer the model or to take it to scale. Experience and theory both suggest, however, that many of the tasks involved in successfully transferring or expanding a model can be best done by or with the assistance of a neutral third-party or **intermediary organization** specifically charged with assisting in the scaling up process. The tasks these organizations perform can include conducting visioning and planning exercises, project evaluation and process documentation, political mapping and stakeholder assessments, coalition building, convening, design and conduct of advocacy campaigns and

Creating new institutions often involves lengthy start-up periods, while using existing organizations to adopt new programmes means that they may have to accept significant institutional change to succeed.

fundraising. In the case of collaborative strategies for scaling up, intermediary organizations can also be essential to designing and forming innovative partnerships. In strategies that depend on expansion or replication, they often play necessary roles in assessing and strengthening the internal capacities required of originating and adopting organizations (MSI, 2012). Figure 2.2 illustrates these relationships.

It has also been reported that the lack of adequately trained human resources is often a major constraint to scaling up. Quality training, coupled with appropriate



Source: MSI (2012)

**Figure 2.2: Organizational role in scaling up.**

incentives, has therefore been recommended as an essential component of a scaling up strategy. The pilot process is meant to develop an effective and efficient programme design, but the efforts are wasted if the lessons learned are not consistently applied. Training helps to transmit procedural and technical expertise and organizational values to new hires, and helps ensure that these critical, if intangible, assets are not diluted as the organization expands. Existing personnel, meanwhile, need training to support continuing professional development as a growing organization presents them with new challenges. Binswanger and Nguyen (2005) stress the importance of training in the scaling up of community-driven development programmes and Binswanger and Aiyar (2003) focus on the development of manuals to support the implementation of such programmes.

Kohl (2007) noted that too often training is seen as the universal response in the face of capacity shortfalls, forgetting the importance of other factors that are critical to success, in particular the creation of adequate incentives and clearly defining the responsibilities and installing systems and procedures that ensure that personnel and units are accountable.

It has also been found that cultural space is important in determining whether the scaled up programme will fit. According to Cooley and Linn (2014), culture can pose obstacles or offer support to scaling up efforts, making it an important component to consider, especially where cultural diversity exists. Some analysts are of the view that this is particularly crucial for participatory programmes those that deliver culturally sensitive services such as education, health, family planning (Awoonor-Williams *et al.*, 2013 for instance). In an educational programme in the United States of America, a study established that scaling up was more successful when the cultural traits of lower student mobility, high attendance rates and race were taken into consideration (Cooper, 1998). Similar considerations will be expected of agricultural programmes, given the intimate links with cultural practices.

The consideration is Partnership Space, which has been found to play a major role in scaling up of intervention because it is important to determine whether domestic or external partners will continue or step up their support of the programme. In most successful scaling up initiatives, partners were a key factor in helping to retain momentum and focus (Mansuri and Rao, 2004).



Korten (1990) noted that scaling up requires a “learning by doing” culture, one that values adaptation, flexibility, and openness to change. Scaling up is not a linear process, it extends over many years and travels many uncharted territories. While a solid format needs to be laid out, processes need to be adjusted regularly. Regular monitoring and evaluation and feedback from beneficiaries, communities and field-based staff are important for learning and adjustments to take place.

Mansuri and Rao (2004) posited that there has been a broad consensus among practitioners that careful and well designed monitoring and evaluation is crucial for effective scaling up. According to Hatmann and Linn (2008), two types of evaluation are relevant to scaling up. The first is the evaluation of the pilot programme to establish whether or not the innovation tested has been successful and what lessons can be learned from it. The other is a monitoring and evaluation of the scaling up process.

## **2.6 Theories of framework/approaches for scaling up**

Many practitioners have proposed different strategic approaches/theories and frameworks for the planning and management of scaling up. The most common are:

1. Cooley and Kohl (2005) provided a management framework for practitioners and propose a three-step/ten-task process, which contains many of the key elements, dimensions and paths, drivers, space and evaluation (Box 2.1). The main message of this approach is that successful scaling up begins with good planning.

Management Systems International (MSI) (2012), which was authored by Cooley and Ved, also proposed the same framework which seeks to improve on Cooley and Kohl (2005). This was based on practical advice for a three-step, ten-task- process for effective scaling up. As shown in Box 2.1, these steps and tasks include:

### **Box 2.1: Framework for successful scaling up**

Steps for systematic planning and management process for scaling up

#### **Step 1: Preparing the model, setting goals and planning**

- Task 1: Identifying the innovation or model
- Task 2: Assessing scalability and filling in gaps
- Task 3: Setting goals and choosing a method
- Task 4: Creating a scaling up strategy

#### **Step 2: Legitimation, advocacy and mobilising resources**

- Task 5: Legitimising change
- Task 6: Advocacy for adoption
- Task 7: Realigning and mobilising resources

#### **Step 3: Implementing the model at scale**

- Task 8: Modifying and strengthening organizations
- Task 9: Coordinating action
- Task 10: Tracking performance and maintaining momentum

Source: Cooley and Kohl (2005)

### **Step 1: Develop a scaling up plan**

Task 1: Create a vision

- 1a. The model: what is being scaled up?
- 1b. The methods: how will scaling up be accomplished?
- 1c. Organizational roles: who performs the key functions?
- 1d. Dimensions of scaling up: where? For whom? Does scaling *up* occur?

Task 2: Assess scalability

- 2a. Determining the viability of the model for scaling up
- 2b. Analysing the organizational and social context

Task 3: Fill information gaps

Task 4: Prepare a scaling up plan

### **Step 2: Establish the pre-conditions for scaling up**

Task 5: Legitimise change

Task 6: Build a constituency

Task 7: Realign and mobilise resources



### Step 3: Implement the scaling up process

Task 8: Modify organizational structures

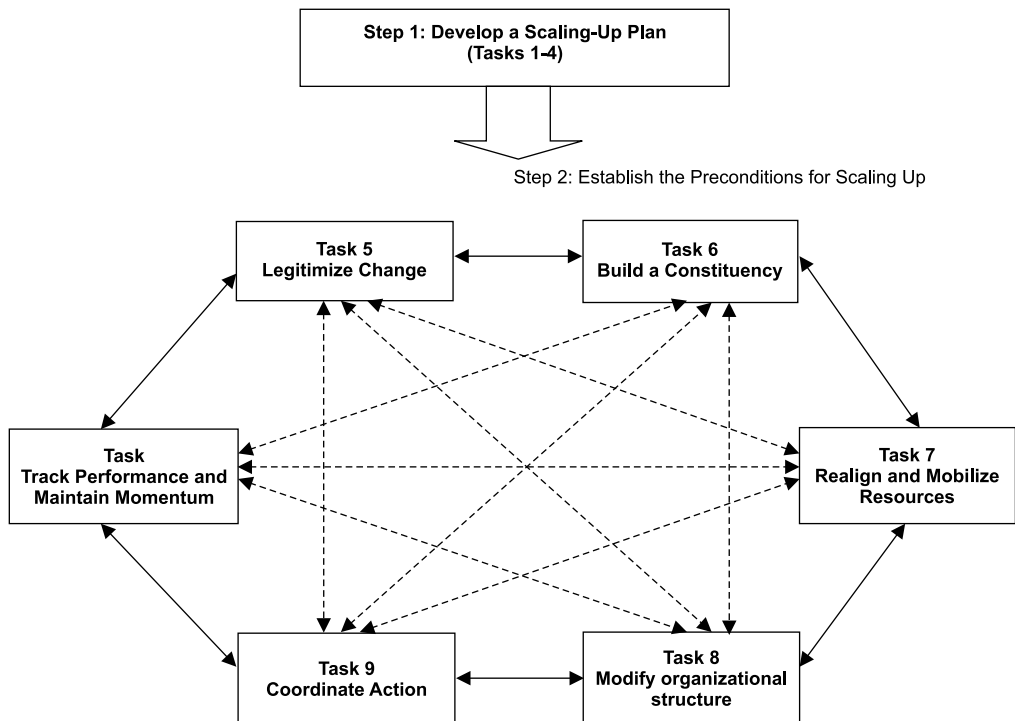
Task 9: Coordinate action

Task 10: Track performance and maintain momentum

According to MSI (2012), the theory and practice underlying the framework come from the discipline of “strategic management.” More specifically, Step 1 brings to bear best practices related to strategic planning in complex settings; Step 2 focuses on change in management functions associated with consensus building, policy change and resource allocation; and Step 3 emphasises the operational aspects of multi-actor programme implementation.

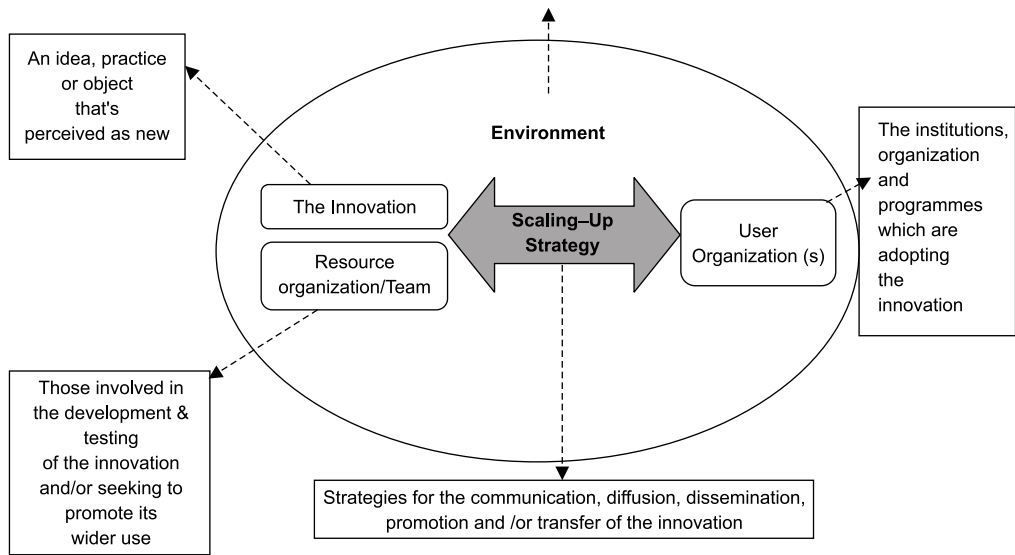
A framework was developed by Simons and Shiffman (2006) (see Figure 2.4), in which they drew on diffusion literature as well as other scaling up reviews and primary studies, to provide a “framework for action” for scaling up health service innovations, but this primarily addressed family and reproductive health service strengthening. They emphasised an element not very well covered in the diffusion literature: the resource team, which they believe is essential to facilitating the transfer of innovations more widely. Drawing on primary study findings, organization behaviour and social entrepreneurship literature, they proposed that these resource teams are more likely to be successful when they have: 1) effective and

Figure 2.3: An overview of the scaling up process



Source: Management Systems International (MSI) (2012)





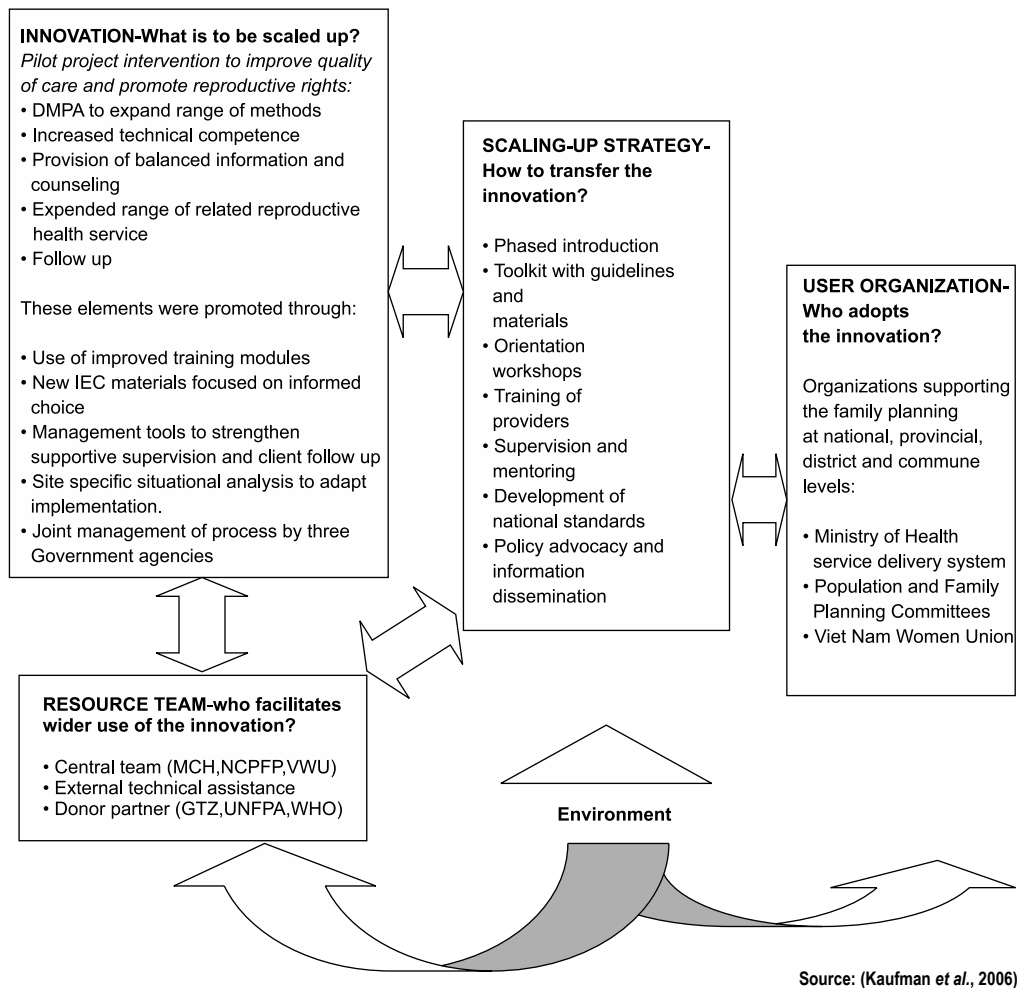
**Figure 2.4: Elements of scaling-up framework. Source: Simmons & Shiffman 2006**

motivated leaders who command authority and have credibility with the user organization; 2) a unifying vision; 3) an appreciation of the user organization’s capacities and limitations; 4) an understanding of the political, social and cultural environments within which scaling up takes place; 5) the ability to generate financial and technical resources; 6) relevant technical skills; 7) training capacity and 8) management skills.

Kaufman *et al.* (2006) show the importance of a “modular toolkit” in their framework for guiding adaptation and implementation at different sites, especially because of the culture of complying with such “government directions” at lower levels. This modular toolkit is depicted in Figure 2.5.

Guiden, Hancock and Anderson (2013) explain that the strategic elements for scaling up are:

- Engaging in policy dialogue on pro-poor development agendas and demonstrating project successes in terms of pro-poor impact during the project.
- Identifying target groups and local, institutional and environmental enabling and constraining factors to scaling up.
- Identifying appropriate research objectives and outputs within development processes to ensure widespread uptake.
- Building networks and partnerships to increase local ownership and pathways to scaling up.
- Raising awareness of the merits of chosen approach among different stakeholders, including the wider target group and policy makers.
- Building capacity and institutional systems to sustain and replicate the innovations introduced.



**Figure 2.5: Scaling up of interventions to strengthen family planning services in China**

- Developing appropriate funding mechanisms to sustain capacity for expansion and replication and identifying indicators and planning, monitoring and evaluation methods to measure the scaling up impact and process.

ExpandNet (2010) developed a nine step framework for strategic scaling up in the health sector which can be applied to other sectors like agriculture. The nine steps are:

1. Assessing the scalability of **the innovation** and planning to take necessary action.
2. Assessing the **user organization** and implications on the same for scaling up.
3. Assessing the **environment** and planning for necessary action.
4. Assessing whether the **resource team** has to the appropriate attributes to support scaling up and planning for change.

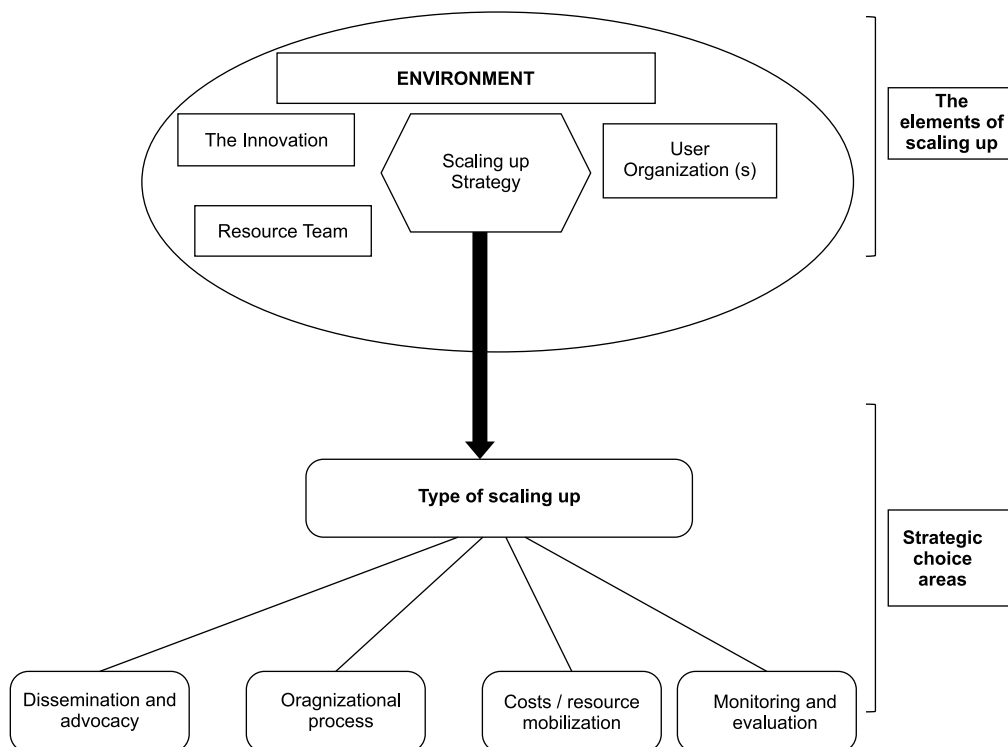


Figure 2.6: The ExpandNet/WHO framework for scaling up.

5. Making strategic choices to support **expansion/replication** or horizontal scaling up.
6. Making strategic choices to support **policy/political/legal** or vertical scaling up.
7. Determining the role and nature of **diversification**.
8. Determining the role of **spontaneous** scaling up.
9. Assembling the **scaling up strategy**.

The framework is guided by four key principles, namely systems thinking, a focus on sustainability, the need to determine scalability and respect for gender, equity and human rights principles. This framework builds on others and introduces cross-cutting issues that more properly contextualizes the scaling up process as a strategy for spreading the benefits of development and enhancing redistribution and equity. More crucially, it contributes to a humanisation of the process by putting the human element at the centre. In Figure 2.6 there is an attempt to depict this process and incorporate the elements highlighted above, with the wider environment at the top of the frame to signify its mediating role. That environment comprises the innovation that has to be scaled up, the expertise required to oversee the process, the demand side of the process (or users and consumers of the outcome of scaling up) and the guiding strategy agreed upon for scaling up. All of these are aptly referred to as the “elements of scaling up”.

On the lower end of the framework are the Strategic Choice Areas which entail the type of scaling up that is ultimately implemented, and a set of actions that are generic in the scaling up process. From earlier discussions in the previous sections of this chapter, scaling up may be horizontal or vertical. According to the ExpandNet/WHO framework, there are four generic scaling up actions, irrespective of the type of scaling up chosen. These include: dissemination/advocacy, organizational processes, cost/resource mobilisation, and monitoring and evaluation. Inevitably, the outcome of the process will be sensitive to the way and the manner in which the nine steps (outlined above) are carried out. Again, the nature and extent of the oversight provided will make or break the process.

## **2.7 Chapter summary**

This chapter presented a comprehensive and wide-sweeping review of the relevant academic and policy literature which began by validating the diverse definitions of the phenomenon of scaling up and how it has been conceived and operationalised. The historical antecedents were then explored to establish its origin and related concepts and the settings within which it evolved and took root as the goal of development programming. At this point, the review became focused on the specific objectives that were elaborated on in the first chapter to survey existing theories of scaling up and how thoughts on the matter have evolved over the years. The literature on best practices that have been successfully scaled up was reviewed, although the greater part of the results of the latter will form the basis of the next chapter (Chapter 3). Finally, the chapter examined other attempts at strategy development that will be relevant in the context of the IAR4D concept.

## Chapter 3

# Lessons from successful scaling-up projects



### 3.1 Introduction

This section continues the review of literature and document analysis by describing the successful scaling up endeavours for technologies and concepts in other parts of the world and the lessons and the pathways taken for their success. Many successful scaling up project case studies have been reported, as have the lessons learnt from them. Many of those lessons overlap. However, those reported here are done so as the authors experienced and recorded them. Some successful scaling up interventions include the Green Revolution, the Micro Credit Scheme of Grameen Bank, Bangladesh Rural Advancement Committee (BRAC) and Multi-donor or River Blindness Eradication Programme. However, some of the development interventions are limited in scale and are short-lived due to political instabilities, bureaucracies and increasing number of NGOs with conflicting goals. A concerted effort to support a systematic scaling up will help forge ahead in the right direction, more so because of its perceived role in agriculture (i.e. global food security, rural development and nutrition).

### 3.2 Success factors for scaling up initiatives

The UNDP (2013) reported seven successful agricultural and non-agricultural scaling up initiatives, including Progresia in Mexico, China's subsidised students loan insurance, Costa



Rica's biodiversity project, Mongolia's financial sector development, Bangladesh Islamic Bank's rural development project, Nepal's rural energy development and China's Agricultural Extension special task force project. The main lessons from the successful scaling up of these projects state that for scaling up to be successful, the following are essential:

1. There is a need for effective monitoring and evaluation.
2. There is a need for a coordinated, federal government-run approach.
3. Political commitment is essential.
4. An enabling policy environment is necessary.
5. Private-public partnership is essential.
6. There is need for strong leadership.
7. External catalysts are useful.
8. There should be a dedicated management with vision for scaling up.
9. Shared financing plays a major role.
10. Multi-sector coordinated policy support across national and local levels supports the success of scaling up.

Hartmann et al. (2013) also covered the scaling up projects undertaken in eight countries and noted that clear vision, long-term engagement and effective partnership approach, and having the country team in cooperation with a committed government, were key drivers.

### 3.3 International experience with scaling up

Hartmann *et al.* (2013) also covered the scaling up projects undertaken in eight countries and noted that clear vision, long-term engagement and effective partnership approach, and having the country team in cooperation with a committed government, were key drivers. They specifically drew attention to the successful scaling up effort of IFAD in the three sequential projects implemented in Ghana. IFPRI has also been getting involved in scaling up initiatives, including its collaboration with IFAD and other development organizations.

### 3.4 Lessons learned from scaled up projects/programmes

In a similar vein, based on their experience with several scaling up projects and literature, Hartmann and Linn (2008) identified seven lessons which are useful for successful scaling up of innovations. These lessons are:

#### 3.4.1 Leadership, vision and values

According to the authors, scaling up is about political and organizational leadership, vision and values. If leaders don't drive the process of scaling up with a clear vision, if institutions



don't embody a clear set of values that empower managers and staff to continuously challenge themselves to scale up. If individuals within institutions are not offered the incentives to push themselves and others to scale up successful interventions, then the current pattern of pervasive "short-termism" and fragmentation of effort will continue to characterise national policies and programmes as well as the policies and approaches of donors. No scaling up manual, no check-list and no compilation of case studies will make a lasting difference.

### *3.4.2 Political constituencies*

One key way to ensure that leaders and institutions continue to pay attention to scaling up is to create an effective demand for it through the political system. Social change needs to be embedded in a society and supported by political constituencies. These constituencies generally do not emerge by themselves; they need to be created and nurtured. Political constituency building involves more than providing information on a successful programme. Political constituencies need to become actively engaged in the process and leaders need to be reminded that it is in their interest to place the scaling up process on their agendas.

### *3.4.3 Mutually supportive policies, programmes and projects*

As programmes are scaled up, the policy framework, laws, regulations and norms have to be supportive. At the same time, most policy reforms need to be underpinned by programmes and projects that lead to the effective implementation of the policy regime if it is to achieve its intended consequences.

### *3.4.4 Willing and able to support change*

Successful scaling up programmes needs organizations with the institutional and human capacity to deliver on the scaling up mandate. There are no blueprints for institutional change that will guide the approach to reform. Different models work in different contexts.

Setting up new institutions and bypassing existing ones should be the exception rather than the rule. Where new or specialised institutions are created, they should be continuously evaluated on their performance relative to appropriate benchmarks such as the performance of alternative existing institutions, retaining the option of merging the old and the new and thus reducing fragmentation.

Political constituencies need to become actively engaged in the process and leaders need to be reminded that it is in their interest to place the scaling up process on their agendas.

Training and development of the staff in charge of implementing scaling up initiatives is important, but it is not a panacea on its own, because without the other key elements of institutional capacity building (as well as leadership, political support, incentives and so on) training will not have a lasting impact.

### *3.4.5 Incentives and accountability*

Without appropriate incentives, innovation would be hampered and the process of scaling up would be



unsuccessful. Scaling up processes need to include incentives for the key actors. These can be positive rewards for achieving scaling up goals or penalties for failing to achieve them. They can be monetary or non-monetary (such as recognition and status, also promotion or election to office and hence influence in this domain). One important tool for creating incentives is to plan for incremental steps with early results rather than building the perfect programme to be rolled out after a long preparation time without measuring intermediate results.

Accountability is necessary to ensure that incentives are aligned among the individual actors, the goals of the organizations they work for and the broader goals of society. Furthermore, accountability is needed to ensure incentives can be linked to shared objectives.

### *3.4.6 Effective monitoring and evaluation*

Successful scaling up requires regular feedback from monitoring and evaluation systems. This allows the programmes to be adjusted as they are expanded in the light of well understood experience. Evaluation can clearly demonstrate the impact of the programme and thus plays an important role in convincing politicians to expand and maintain it. Similarly, simple evaluations can play an essential role in providing feedback on whether scaling up is embedded in the institutional and managerial culture and values of an organization, provided that the evaluations actually focus on scaling up as a key dimension of success. This last, unfortunately, is still the exception rather than the rule.

### *3.4.7 Orderly and gradual process*

The literature on the diffusion of innovations focuses on the spontaneous spread of innovations and observes that some ideas/innovations can spread very quickly, especially when they are market driven (for example, the diffusion of information and communications technology, such as the cell phone). However, social process innovations—which rely on political processes, public sector bureaucracies and often on participatory, bottom-up community engagement—generally do not spread spontaneously. An orderly and gradual process, careful logistical planning, a clear definition of partners’ roles and good communication are important ingredients for scaling up development interventions. However, there is a need to keep processes simple, goals manageable and accountabilities clearly identified.

## **3.5 Requirements for successful scaling up**

MSI (2012) also reported a number of lessons learned in the course of applying the sum framework and toolkit for around 10 years. They drew particular attention to a set of caveats that can serve as the guiding light for implementing a successful scaling up programme. Ten such caveats are summarised below:

### *3.5.1 Simplified model*

The more one can simplify a model without losing the basis of its effectiveness, the more feasible it is to scale it up. This is akin to the time-tested injunction to “Keep It Simple



Stupid!” (KISS), a design principle associated with the United States Navy (Dalzell, 2009). This reverses the logic of most pilot projects, which add elements in an effort to maximise effectiveness. There may also be the ego-driven tendency to make projects more complex because of the political appeal and the impression of significant expertise and commitment thus created. More generally, there is a strong reluctance on the part of most organizations to simplify, repackage or relinquish control over their models for the purposes of scaling them up.

### *3.5.2 Governance arrangements*

Transferring responsibility to and from the government or between levels of government is dependent on the particularities of governance in specific localities, states and countries. These dynamics are further complicated where there is a history of mistrust between the government, NGOs and the private sector.

### *3.5.3 Intermediation*

Support for intermediary organizations should be a growing area of concern and emphasis. “Innovation” is currently over-funded relative to investments in scaling up the successful ventures in this regard. In many cases, there is a conspicuous lack of intermediary organizations with the skills, mandate and motivation to help organizations scale up successfully and a shortage of donors willing to fund the scaling up process.

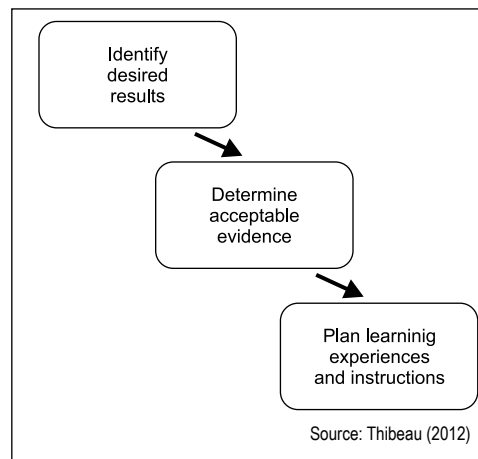
### 3.5.4 Need to avoid common pitfalls

A number of pitfalls confront efforts at scaling up successful innovations. Most of these pitfalls relate to the amount of information available to implementing units and the broader context in which the scaling up will take place. According to President Clinton, quoted by Bradach (2004), “Nearly every problem has been solved by someone, somewhere, but we can’t seem to replicate those solutions anywhere else”. Going to scale is particularly difficult when models lack credible documentation of impact, do not include a technological innovation, are value-laden or process intensive, are replacements or substitutes for government services rather than innovations in service delivery, are not easily drafted onto existing services or do not have a dedicated funding source or other means of generating revenue. According to Bradach (2004), substantive evidence of success of the innovation is needed in order to make a strong case for replicating it and extending its coverage. Such evidence can only emerge from reliable records where the successes have been objectively assessed.

### 3.5.5 Backward planning

If planners and implementers are intent on reaching scale, they need to begin with an eye on the same and a strategy for achieving it. They need to be strategic in the design/selection of the model and its testing. Generically, backward planning is identical to what experts of organizational development describe as “plan with the goal as a starting point” and then assembling the steps and resources to achieve it. In the field of curriculum development, Tyler (1949) introduced the idea in 1949, although he referred to it as “statement of objectives”. In that case, the desired learning in a child/learner is decided upfront and then the instructional programme is drawn up and implemented to achieve that goal. It was as recently as 1990 that McTighe and Wiggins (1998) used the term “backward design” for the first time in their book *Understanding by Design*. In 1990, Coleman had written a book titled *Foundations of Social Theory* in which he used the term “backward policing” which he used to explain the policy-making process at the factories that made Honda cars. Additionally, it is necessary to invest heavily in information and focus early on unit costs and implications for current service providers.

Figure 3.1: Backward planning model



### 3.5.6 Audience-tailored evidence

Data from pilot projects is rarely tailored to the decision criteria or decision making styles of policymakers. Data on effectiveness is often necessary, but usually not sufficient. It is important that information be demand-driven and those providing it be prepared to experiment with content, style and format until they get it right. Hawkins, Kreuter, Resnicow, Fishbein and Dijkstra

(2008) have provided a definition of informational “tailoring” in their article “Understanding tailoring in communicating about health”. According to them, it “refers to any of a number of methods for creating communications individualized for their receivers, with the expectation that this individualization will lead to larger intended effects of these communications”. In the opinion of the experts, “tailoring” has two sides to it, distinguished on the basis of the desired goals, namely enhancing cognitive preconditions for message processing and enhancing message impact through modifying behavioural determinants of goal outcomes. Tailoring can be applied to attain one or both of these goals. The strategies employed are generally personalisation, feedback and content matching, without prejudice to the specificities imposed by particular disciplinary peculiarities. Given the multi-stakeholder nature of the programming for agricultural and rural development, it is understandable that a unique approach will be difficult to implement and different audiences will have to be accommodated by the flexibilities in the message and the means of delivering them.

### *3.5.7 Timing of advocacy and ownership*

The value of advocacy has sometimes been understated, but it is often that which makes the difference between success and failure. According to Burns (2013), advocacy is a “word of mouth amplification analogous to traditional marketing methodology...and you ignore them to your detriment”. There is recognition of the value of advocacy to “market” the idea to be scaled up and get the “entire community...behind the effort” (Mazor, 2011). Given this, it is therefore considered vital to invest substantially in advocacy, for which a multi-stakeholder team should be created at the outset. Such a team would report to an advisory board or some mechanism with the responsibility to develop buy-in at the various relevant levels. For effectiveness, it is suggested that multi-stakeholder team and the advisory board try to forge strategic partnerships and collaborative mechanisms as a way of engaging with the issues. For instance, the experience of an organization like IFAD, working in different countries and on diverse programmes, shows that working with partners is indispensable (Hartmann *et al.*, 2013). Among other reasons, local partners understand the indigenous channels of communication and the traditional power structures and systems of incentives as well as the value systems, all of which are vital considerations in determining whether or not a scaling up programme is successful.

### *3.5.8 Systems, procedures and incentives*

For sustainable change to occur, it is essential to understand and replicate the incentives that contributed to the success of the innovation in the first instance. It is also possible to establish an alternative incentive system that is well suited to reinforcing needed actions. Changes in rules, regulations and procedures are often necessary to achieving this.

### *3.5.9 Donor education*

Going to scale takes time, money, resources and capacity/skills that are often greater than the pilot. The average time for scaling up a pilot to national application is **15 years**. Securing and maintaining the needed commitment and resources over this period calls for tangible milestones, strategic communications and an explicit strategy for maintaining momentum.

What these mean is that the donor, if one is involved, must be familiar with these issues and factor them into the whole scaling up process. It is necessary to establish an understanding between the funders of the programme and those who have to work to implement it and organise the resources and account for their use. Hartmann *et al.* (2013) have examined the experiences of an organization like IFAD in creating an institutional space for scaling up and some of their more important findings include the need for the organization to undertake studies that generate adequate information on the institutional constraints to the process and how these can be overcome.

### 3.5.10 Multi-stage monitoring

It is essential to monitor and report on both the scaling up process and on implementation at scale. The monitoring and reporting process can and should be used as part of an ongoing strategy to maintain political and popular support and funding. Hartmann *et al.* (2013) have observed that M&E are essential to achieving success in scaling up. In relation to an IFAD scaling up initiative, Hartmann *et al.* concluded that the organization (IFAD) should do the following in relation to establishing and implementing an M&E system:

- Undertake an in-depth review of its results management.
- The self-assessment mechanism in respect of M&E must be strengthened at both the country and regional levels.
- Measures should be put in place to automatically improve the operational and institutional procedures and processes, while no effort should be spared in ensuring that additional bureaucratic requirements are not necessary once the foregoing issues have been put in place.
- Regular, high-quality mid-term reviews or evaluations should be instituted.
- A simple methodology for evaluation and M&E should be in place.

The average time for scaling up a pilot to national application is 15 years.

## 3.6. Lessons learned on agriculture, rural development and nutrition scaling up

The present assignment concerns the agricultural sector. Although several of the lessons outlined above are applicable, this sector has some unique characteristics that make for a different set of lessons learned. Linn (2012) indicated some of those on successful scaling up of agriculture, rural development and nutrition as follows:

### 3.6.1 Actors

Linn (2012) indicated that virtually all effective scaling-up experiences in agriculture, rural development, and nutrition have involved a multiplicity of actors: national, state, and local governments; civil society organizations; private businesses; public and private external donors and, most importantly, farmers and rural communities. In the case of community-driven

programs, perhaps most obviously in the development of value chains, many actors must engage throughout the change process. According to Lin, 2012, for effective scaling up, the development of multi-stakeholder alliances is a key ingredient.

### 3.6.2 Dimensions

Linn, (2010) states that effective scaling up of agricultural and rural development interventions usually takes place across multiple dimensions. The development programme in the Peruvian highlands proves a case in point: projects gradually spread across different areas through “horizontal” scaling up, expanding thematically to cover broader aspects of the rural economy with “functional” scaling up. Over time, they are scaled up “vertically” with adoption by the national government. One lesson drawn from the case studies in this series is that horizontal and vertical scaling up can and should be combined to achieve success. This has been proven true for area development programs in Peru and China, new rice production methods in Vietnam, value chain development and community development programmes.

## 3.7 Lessons from scaling up the Warmi Project

Gonzales, Arteaga and Howard-Grabman (1998) gave an account of lessons learned from scaling up the Warmi project. These can also be applied to sectors other than health. The Warmi Project was developed by Save the Children/Bolivia under the United States Agency for International Development (USAID)-funded Mother Care to demonstrate what could be done to reduce maternal and perinatal mortality at the community level in isolated rural areas with limited access to health services. The pilot project was carried out from 1990 to 1993 in 50 communities in the Inquisivi Province.

### 3.7.1 Methodology

Participatory processes require time to implement. In scaling-up Warmi, the project methodology in the community was participatory as were coordination, budgeting and administration in the larger initiative. Coordinating between various organizations working collectively towards common objectives while respecting each agency’s independence demands more time than anticipated to achieve project sustainability, establish measurable impact and utilise participatory processes. Given all the procedures involved, it was found that a three-year project time frame was not realistic.

One lesson drawn from the case studies in this series is that horizontal and vertical scaling up can and should be combined to achieve success.

Communities lose interest in the Warmi process if long periods of time pass without follow-up by the trainers, particularly during the initial Community Action Cycles. The implementing organization loses credibility in the eyes of the community if follow-up is not punctual. Delayed funding disbursements by bilateral partners sometimes created gaps in training and implementation of the methodology. When this





happens, the project risks' losing the participation and interest of the leaders and participants and momentum is lost.

Educational processes are long and complex, especially when they aim toward a critical understanding of one's reality and self-determined change (it is probably simpler to disseminate knowledge about diagnosing illness, but is less long-lasting). Warmi essentially works to awaken critical consciousness and awareness of one's reality and the results of this process cannot be measured in quantitative terms. Evaluation should also include ways to show "empowerment" of women and communities, measuring their capacity to exercise their right to participate and propose actions to solve their problems.

Before beginning to implement the Warmi methodology, it was important to carefully select and understand communities, paying particular attention to socio-cultural factors. For example, in communities where women normally do not participate in decision-making, one must solicit the approval of male leaders and husbands first to try to prevent resistance and encourage their participation. Men must feel comfortable and assured that they too can participate for the Warmi process is to be successful.

The Warmi methodology creates demand for information and immediate services. The institutions implementing the Warmi Project and health providers serving the selected areas should plan for this increase in demand. Communities generally request information on themes such as the importance of pre- and post-natal exams, sexually transmitted diseases and infections. To respond to this demand, didactic materials need to be obtained and/or developed and health personnel need to be well trained in all aspects of reproductive health services. Service providers should ensure that they have sufficient commodities and supplies on hand to meet the increased demand for family planning and other reproductive health





services. Health district services were not prepared for the demands created by the Warmi Project, in part due to shortages of contraceptive supplies and in part due to lack of clinical training in contraceptive methods. This led to an increased demand by service providers for training and adequate supplies. Specifically, in districts in Tarija, La Paz, Sucre and other areas, providers obtained the necessary supplies from the regional warehouses of the Ministry of Health (MOH). They also scheduled training for those providers who needed it, in some cases very rapidly.

The Warmi methodology generates reflection and analysis not only of reproductive health problems, but also on themes such as human sexuality, self-esteem, family violence, human rights and others. It also opens communication channels between women and between women and their husbands, and increases women's participation in community affairs. These results were consistently achieved by the Warmi Project, regardless of the implementing agency.

Several important achievements support the likelihood that the project and the Warmi methodology will be sustained. Some of these include community leaders have been trained in, and are using, the Warmi methodology, the Warmi process being articulated in the national health plan and the fact that NGOs are now using their own resources to pay for technical assistance and to implement the process in new project sites.

Inter-institutional coordination was key to the success of the scaling up effort. The coordination with the MoH was not just at the executive level, but negotiation and action took place at the regional, district, sector and area levels as well.

When new methods are introduced, there may initially be resistance, but this can be overcome if the methods are effective. For example, government auxiliary nurses initially saw the Warmi methodology as just one more unpleasant task they had to do. This changed over time and most now enjoy this aspect of their job. The constant assistance by SC/B staff was critical to the successful implementation of the project. In areas where SC/B was not able to assist project teams due to geographic isolation, field workers did not complete the process or it was delayed.

### 3.7.2 Staffing

The staffing of the project was well designed. The National Coordinator of the Warmi Project managed and coordinated the activities implemented by the regional trainers. Fewer technical staff meant low direct and indirect costs and required intensive reliance on the participating organizations to implement it, but they did manage to provide national coverage in Warmi's technical matters.

The technical personnel in charge of coordinating the Warmi Project for partner agencies had to possess the following characteristics: high levels of skill in non-formal education methodologies, fluency in the regional language, exceptional interpersonal skills so that they were capable of obtaining the acceptance of the communities and willingness to commit to the project for at least two years.

The original Warmi methodology was very time intensive, particularly when women's groups did not exist prior to the setting up of the project and participants had not had experience with group processes such as priority setting and planning. These processes take time and women's time is valuable. Community participants must be able to quickly measure the impact that their participation has had or they will cease to participate. The Warmi methodology has responded to this need and reduced the total time required to implement the entire process. Originally, a community action cycle would require eight months to a year to complete. The revised methodology, which will be detailed in the Second Manual for Warmi Implementors, has cut down the time required to complete the first cycle to about six months. Subsequent cycles are often shorter and a community will need to complete four or five cycles before its members can then internalise and apply the process on their own.

When new methods are introduced, there may initially be resistance, but this can be overcome if the methods are effective.

## 3.8 Lessons on creation of regional research and development platforms

LEISA Magazine (2011) gave a report on the lessons learned on creation of regional research and development platforms for scaling up. The creation of these for information sharing,

planning and coordination is found to be an important tool for “going to scale” and has been used successfully for the improvement of groundnut production in India. Consortia of farmer organizations, NGOs, government and international agencies and recognition of the complementary roles these different stakeholders play is also clearly important for success as well.

## Chapter 4

# Strategies for scaling-up and scaling-out of IAR4D Innovation Platforms



## 4.1 Introduction

This chapter focuses on the presentation of the broad outlines of the suggested strategic scaling up, scaling out and institutionalisation of IAR4D in the context of previous attempts in this regard, as outlined in literature and set against the uniqueness of the IAR4D concept implemented under the sub-Saharan Africa Challenge Programme (SSA-CP). The scaling up and out of IAR4D Innovation Platform is a way of institutionalising, expanding and replicating the successful innovation in new geographical and agro-ecological zones in Africa, outside the existing 36 IPs. It has been noted that the absence of a strategies platform for continental and global networking to support efforts of the national and sub-regional research systems has been a glaring vacancy in the African agricultural scene.

It is in this context that FARA's path-breaking work to develop and manage the innovation platforms (IPs) has been widely lauded. FARA's intervention has contributed to the heightened awareness of the relevance of collective action which has translated into more inclusive programmes that focus on concrete impacts. According to Makini, Kamau, Makelo and Mburathi (2013), the IPs are "applicable to all aspects of agriculture and for a wide range of technologies from simple to complex to integrated and composite". According to Makini *et al.*, the IPs present both production and marketing opportunities such that farmers' yields and outputs increase and they can sell for profit, allowing them to make meaningful efforts to reduce their poverty.

Given the phenomenal success this concept has recorded, there is a feeling of urgency to expand it geographically to reach more people and also to entrench it within the national development policy of countries in the zone of FARA's influence. The current number of 36 IPs are located within a small part of the continent, estimated to be about 377,400 km<sup>2</sup> out





of Africa's total land area of about 30 million km<sup>2</sup>. Further, only around 45 million persons may be directly and indirectly influenced by the existing IPs out of a total continental population of nearly 800 million people. The current socio-economic context demands that a much wider coverage be sought at the earliest possible time to avert the consequences of the rapidly deteriorating macroeconomic conditions in many African countries.

Given the phenomenal success this concept has recorded, there is a feeling of urgency to expand it geographically to reach more people and also to entrench it within the national development policy of countries in the zone of FARA's influence.

## 4.2 Innovation Platform process design

In order to successfully scale up the IP's in their current form, it is important to understand their process design since that is what will inform the steps through which the scaling up will occur. Information on this has been gleaned from the extensive and comprehensive literature review presented in Chapter 2 and the lessons learned presented in Chapter 3. Essentially, it is clear that the IPs are generally formed at three levels: local, intermediary and national. The critical factor is that they are multi-stakeholder arrangements. This means that several individuals, agencies and institutions share in the setting up and running of the IPs. The phases involved in the formation of the IPs also mirror the phasing of the scaling up and scaling out processes. As Makini *et al.* (2013) and Adegunle and Fatunbi (2012) suggest, three distinct phases can be delineated, namely:

- (a) Engagement of stakeholders which involves initiation and visioning,
- (b) Planning, learning and assessing, in which establishment and management procedures are also emphasised, and,
- (c) Installing procedures to promote sustainability, including defining management and sustainability measures.

Each phase has unique dynamics that must be understood. It is particularly important to identify the key players at each phase and level and learn how their roles change over time in response to the changing structure of incentives as well as the wider environment of the innovation to be scaled up.

The seminal works of Kaufman *et al.* (2006) and ExpandNet (2010) presented another dimension which identified what are termed "Scaling Up Elements", comprising four components: (i) the IAR4D IP to be scaled up, (ii) new users of IAR4D and IP, (iii) the resource team, and (iv) the environment of the IAR4D IP. A feasible IP scaling up design must therefore combine the levels of IPs, the phases through which they are formed and the elements of a scaling programme. Figure 4.1 is an attempt to summarise these components that can be applied to the IAR4D IPs that were introduced by FARA and co-managed with national research systems under the SSA-CP (2008-2012) and provides the framework for expanding their coverage to hitherto unserved territories while becoming embedded in the policy infrastructure of the participating countries.

The strategic framework in Figure 4.1 serves as a model and a summary for the strategy used for scaling up and out of IAR4D and IPs described in this section. This has been formulated from different frameworks found in literature and is composed of four elements. The scaling elements are the IAR4D IP to be scaled up, new users of IAR4D and IP, the resource team and the environment of IAR4D IP. These first four elements of scaling up and the strategies to be used are systematically analysed and explained. All the procedures and actions to be taken for scaling up, scaling out and institutionalising IAR4D are highlighted under each heading and include discussions of how they can be operationalised.

Scaling up is predominantly an organizational, managerial, political and capacity-building task. The strategic scaling up is a three-stage process. It requires focused attention, strategic planning and management as well as resource allocation. It is also a systematic approach for institutionalising and expanding innovations that were successfully tested in pilot projects like the IAR4D.

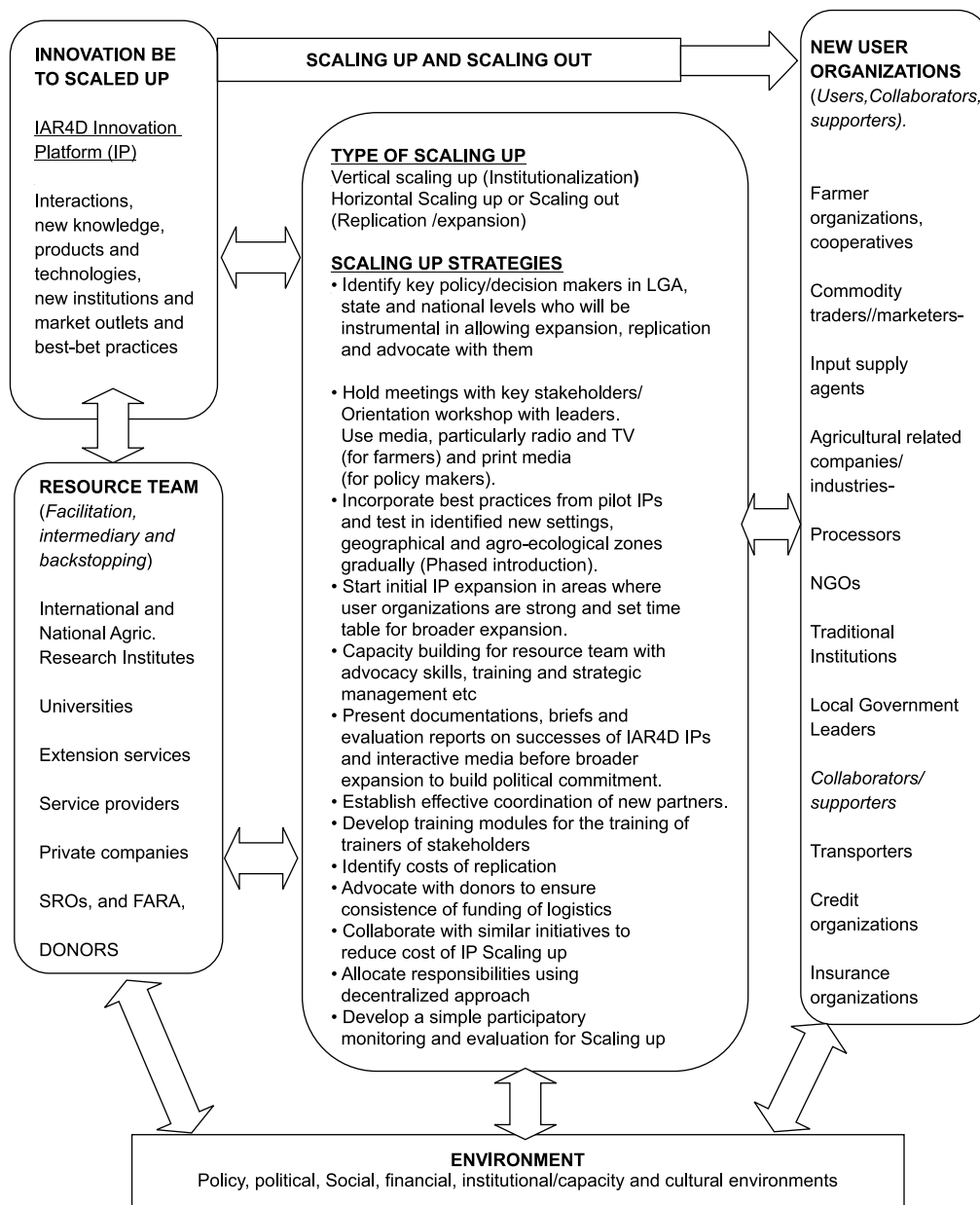
### 4.3 Scaling up elements of IAR4D

As indicated above, the scaling elements are the IP to be scaled up, new users of the IAR4D and IP, the resource team and the environment of IAR4D IP. In this section, these elements are described to set the context for the design of an effective strategy for scaling up the best practices.

#### 4.3.1 *Innovation to be scaled up*

The first step in the scaling up and out of IAR4D is the identification and reviewing of the innovation to be scaled up. In this case, the innovation is the IAR4D IP, as shown in the top left box of Figure 4.1. IAR4D is a multi-institutional, multi-disciplinary phased participatory action research approach which pools knowledge for catalysing innovations to address market, technology, natural resources management and policy challenges. IAR4D IP is a coalition or partnership of public and private stakeholders in agriculture, including policy makers, technologies and coordination processes that interact to generate innovative solutions to challenges. IPs are comprised of stakeholders and/or collaborators of diverse social and economic registers and the institutions that govern their behaviour, all working towards a common objective. The platform adopts innovation as a systemic and dynamic institutional and/or social learning process and recognises that innovation can emerge from many sources, complex interactions and knowledge flows. The main innovations associated with IP are ***new knowledge, new products and new technologies, new institutions and market outlets and best-bet practices***. Two IPs developed by FARA in Uganda and Rwanda can be used to illustrate the multi-stakeholder characteristics of these arrangements.





**Fig 4.1: Framework for IAR4D Innovation Platform (IP) Strategic Scaling Up and Scaling out. Adapted from Kaufman et al (2006) and ExpandNet (2010)**

**Table 4.1: Chahi IP in Uganda**

Country	Uganda
IP Name	Chahi Ifatanyabubasa
Focus enterprise/value chain	Potato
Location	Kisoro District
No. of participating villages	Three parishes and their respective sub-parishes
Date IP initiated	November 2008
<b>Partners</b>	
Farmers	Core IP members (individual and farmer group representatives)
Private sector	UNADA, UNPSPA, Equity Bank, MECRECO, Transporters, Joro Investment Ltd, Kampala Potato Traders Group, HUNTEX
Policy makers	Local government (district, sub-county, local councils II – parish and I – sub-parish)
Researchers	NARO, Makerere, AHI, CIP, CIAT, ICRISAT, ISAR
Extension	NAADS, Kulika
Training institutions	Kyambogo, Kabale, Makerere, and Kenyatta Universities
Innovations	Knowledge sharing to better understand the problem; linkages with traders, credit institutions (MECREGO, Equity Bank), business plans, registration, constitution, proposal development; participatory experimentation with three varieties (Kachpot 1, Victoria and Kinigi) fertilised; rotation with climbing beans; using basic seed of participatory selected variety for training and demonstration of seed plot technique.
Achievements	Attitude change and increased growing of Victoria (demand for 120 bags of Victoria variety); 120 farmers were linked to market and developed a proposal to access credit to purchase Victoria potato seed worth US \$6,000 (this was expected to generate 60MT of ware potato worth Uganda Shillings 36M (US\$18,000); efficient information flow can facilitate price renegotiation.

**Table 4.2: Isangano Gataraga IP in Rwanda**

Country	Rwanda
IP Name	Isangano Gataraga
Focus enterprise/value chain	Irish potatoes
Location	Gataraga Secto, Musanze District
No. of participating villages	Ten
Date IP initiated	November, 2009
<b>Partners</b>	
Farmers	Core IP members (group representatives)
Private sector	Gataraga SACCO, input traders
Policy makers	Local authorities (including the Executive Secretary of the sector)
Researchers	ISAR, CIAT, Makerere, NUR, ISAE
Extension	Urugaga Imbaraga (National Farmers Federation), public extension
Training institutions	NUR, ISAE, Wageningen University Research
Others	

Innovations	Potato washing, grading and packaging in woven sacks and bags made out of banana fibres; facilitating access to good quality planting material of market-preferred variety; dehaulming before harvest
Achievements	Improved quality and increased potato yield, improved shelf life of potato, increased access to niche market with good price, hygiene and sanitation, preservation and packaging, production costing, linkage to Kigali potato niche market and regular sales to supermarkets and hotels.

The IAR4D concept has been successfully implemented in 36 IPs across SSA. Lessons have been learned from all these platforms. The IAR4D IP has been proven and documented to yield high returns from investment in fostering adoption of technologies. It also fosters the effective use of the technologies through systematic access to the necessary inputs and output market. This has resulted in large productivity increases, increases in income and subsequent reduction in poverty of stakeholders. In other words, IAR4D IP has met the conditions of scaling up, including being credible, observable, relevant, having relative advantage, compatible with local practices and objectively testable. The challenge now is how to expand these IPs nationally from their pilot sites and successfully advocate for their incorporation into the national policy process on a sustained basis.

#### 4.3.2 User organizations

The second step in scaling up of IAR4D is the identification of user organizations, advocating and developing the capacity of the same. As in Figure 4.1, the user organizations are the new organizations or institutions that are expected to adopt and implement the IAR4D IP concept. Some of the new users are required to merely service the IPs as part of their normal operational activities and have spatial specificity which makes it necessary to adapt the same to the new user rather than vice versa. As Tables 4.1 and 4.2 show, these user organizations can be quite numerous and understanding the features of all of them can be a tall order. But it must be done in order to enhance their effectiveness. The users of IP are farmers, farmer organizations, cooperatives, commodity traders and marketers, input supply agents, agricultural private organizations, processors, traditional institutions, local government leaders, NGOs, transporters and credit organizations. This group can function as users, supporters and collaborators.

The IAR4D IP has been proven and documented to yield high returns from investment in fostering adoption of technologies.

According to WHO/ExpandNet (2010), successful scaling up is facilitated when the user organization has the following characteristics:

According to WHO/ExpandNet (2010), successful scaling up is facilitated when the user organization has the following characteristics:

- The members of a user organization perceive a need for innovation.
- The user organization has the necessary implementation capacity.
- The timing and circumstances are right.
- The user organization possesses effective leadership and internal advocacy.
- The resource and user organizations are compatible.

There is need to advocate with district or local government leaders, traditional leaders, decision makers and policy makers to assist in driving the process and to provide the IAR4D IP with legitimacy and ensure active participation of other partners. One example of the effect of advocating with local government leaders in scaling out is the Dandume area of Katsina state in Nigeria where scaling out of IAR4D IP spread from an initial five pilot villages to all 11 villages in the area with the support of the local government. Furthermore, the local government took on the ownership and leadership of the IPs. Of course, in this case there is a single local government involved and the possibility of competing policy environments, but when nationwide expansion is contemplated, the situation will become more complex as different local governments will become involved and certain local rules may, at times, be in conflict with broader national goals.

For all the aforementioned scenarios, it is necessary to have good facilitation, leadership and dedicated champions right from inception. This will involve early one-on-one meetings with stakeholders to promote understanding and lobby for active support. There is a need to advocate for policy change because a suitable policy environment supportive of the agriculture sector will assist in the establishment of IPs. There is also a need to identify capacity in the new user organizations before scaling up is initiated. Scaling up should begin only in areas where the required capacity exists and which have been assessed on the basis of site-specific situational analysis for adaptation of IAR4D IP. There is a need for capacity building of new user organizations and therefore, training of trainers for user organizations should be organized.

...it is necessary to have good facilitation, leadership and dedicated champions right from inception. This will involve early one-on-one meetings with stakeholders to promote understanding and lobby for active support.

IPs should be established where most of the partners are present in order to discuss the situation of farming and marketing of the product and the related problems as well as the responsibility of each actor. Well organized, structured and functional farmers' organizations and a well-organized and functional private sector should be identified.

#### 4.3.3 IAR4D IP environment

Step 3 of scaling up the IAR4D is the strategic assessment and handling of the environment. The environment refers to the conditions and institutions that are external to the user organizations but fundamentally affect the prospect of scaling up in that environment. As shown in Figure 4.1, these environments include policy, political, social, financial and institutional/staff capacity and cultural milieu. Without a suitable environment, scaling up of IAR4D IP is almost impossible because of conflict and lack of cooperation from involved actors.

**To ensure suitable environments for successful scaling up of IAR4D IP, the following actions are required:**

- Mobilisation should be done for support so as to reduce opposition through advocacy with influential individuals, groups and institutions.



- There is need for early involvements of local leaders, decision makers and policy makers to assist in driving the process, with meetings chaired by local participants and facilitated by a resource team. It has been seen that the active involvement of district or local government leaders and traditional leaders in supporting IPs provided some of the existing IPs with legitimacy and ensured active participation of other partners. An example from the pilot IP is the participation of the wife of the Governor of Katsina State of Nigeria in one of the field days. This action at the highest level of the state encouraged leaders in the local governments to get involved and make the transition from interest to active participation.
- There is a need to build flexibility into the scaling up strategy for IPs as establishment cannot be subjected to sets of rigid rules and approaches. This is due to differences in socio-cultural and institutional settings which may have an overbearing effect on the willingness of individuals or groups to work together and innovate.
- There is a need to build a network of supporters and this makes early involvement of the private sector in charge of input supply, marketing and finance essential.
- Environmental assessments should be a continuous process and be linked to decision-making so as to adjust the scaling up when necessary.
- There is a need to engage in advocacy with donors so as to keep them abreast of progress and canvass for funds for the same.

#### *4.3.4 Resource team*

Step 4 is the identification and development of a resource team. The resource team refers to the individuals and institutions that are expected to promote and facilitate the adoption of IAR4D IP in user organizations.

As in indicated in Figure 4.1, the resource team for the scaling up of IAR4D IPs are the research and development organizations, universities, international and national agricultural research

institutes, extension services, service providers, NGOs, private companies, Sub Regional Organizations (SROs), FARA and donors. This group can function as facilitators, intermediaries and also be involved in backstopping. According to Simmons and Shiffman (2006), resource teams are more likely to be successful in attaining scaling-up goals if they possess the following features:

- Effective and motivated leaders who command authority and have credibility with the user organization.
- A unifying vision.
- Understanding of the political, social and cultural environments within which scaling up takes place.
- The ability to generate financial and technical resources.
- In-depth understanding of the user organization's capacities and limitations.
- Relevant technical skills, including research and evaluation skills.
- Capacity to train members of the user organization.
- Capacity to assist the user organization with management interventions needed to implement the innovation.
- Skills and experience with scaling up.
- Compatibility with the user organization.

**To make the resource team effective in scaling up of IAR4D IPs, the following actions are required:**

- There is a need to recruit team members with experience in new user organizations.
- The existing resource team members should be present and available to any new members hired. The interaction and sharing of experiences will be useful to the new team members.
- There is a need for site visits to projects with successful scaling up experience.
- There is a need for capacity building to train a resource team with advocacy skills, facilitation skills, monitoring and evaluation, gender issues and strategic management, etc.
- There is need to mobilise funds for training a resource team and adjusting the pace and scope of scaling up to ensure the resource team provides adequate support.

One time-tested means to enhance effectiveness and human capacity is to mainstream training and human resource development so that the technical team is continually kept abreast of new knowledge and information. It is recommended that the mainstreaming be implemented by operating a knowledge centre on the IAR4D at FARA. This will ensure that the IP concept goes beyond the immediate SSA-CP sites into the wider society and is embedded in national policy. Some of the actions that should be taken include:

- i) Keep FARA's knowledge base on IAR4D up-to-date and accessible to a broad audience.
- ii) Develop training materials based on experiences from existing Pilot Learning Sites (PLS) as well as other sources.

- iii) Implement an IAR4D train-the-trainer programme, which will train IAR4D trainers. Each of these trainers is expected to have trained a number of research and extension officers in IAR4D consistent with the total population to be served. The training should also include how to facilitate IPs.
- iv) Promote the inclusion of IAR4D ideas and concepts in the curricula of agricultural schools and faculties of Agriculture.
- v) Ensure that IAR4D principles are adopted in the implementation of the country's CAADP agenda. This is a key goal for FARA as the lead agent in the implementation of CAADP Pillar IV.
- vi) Establish research chairs in at least one major Agricultural faculty in the country to drive research on the key concepts and contribute towards assessing impact to continue to motivate interest and enthusiasm in the concept.

By incorporating the concept into the curriculum of agricultural schools and faculties of Agriculture, the idea is not only to build capacity in the planning and implementation of the IP concept, but to keep it constantly on the agenda of both political and social discourse.

The three last items are particularly crucial to making the concept sustainable. By incorporating the concept into the curriculum of agricultural schools and faculties of Agriculture, the idea is not only to build capacity in the planning and implementation of the IP concept, but to keep it constantly on the agenda of both political and social discourse. This is necessary for the entrenchment of any idea. Students who enrol for these modules will need books and study material, which will stimulate intellectual activity in the production of learning materials, among other things. It is expected that the existence of demand along those lines will provide the necessary incentive for governmental structures to incorporate IP and the IAR4D principles in the national CAADP agenda. The same goes for introducing the IAR4D and IP ideas in the curriculum for university-level training in agricultural science which will have both capacity building and awareness-raising features. The national agricultural research systems (NARS) will all be involved in these processes, including, among others, establishing and managing experiments and demonstrations that contribute to advocacy.

#### 4.4 Factors favourable to successful scaling up of IAR4D IPs

As has been highlighted in the foregoing, the IAR4D concept has tremendous appeal on account of its unique design. According to Ayanwale, Adekunle, Akinola and Adeyemo (2013), the IAR4D approach was conceived to overcome the shortcomings of the conventional R&D approach whose "institutional laxities" were reflected in the low adoption rates for improved technologies, weak and sometimes non-existent linkages among vital value chain actors and culminated in unprofitable farming operations across the continent. The way these weaknesses have been addressed by IAR4D has been described by Anandajayasekaram (2011) as transforming the configuration of research which becomes embedded within an innovation





system “comprising all actors in agricultural value chains”. The unique feature that emerges from this is that it easily lends itself to replication and to expansion as a result of the in-built feedback mechanism that allows for all relevant stakeholders to interact on an on-going basis as ideas are tossed around.

The view taken in this analysis is in line with the contemporary global thematic and developmental programmatic inclinations towards: i) the scaling out of an important innovative approach (i.e., IPs) to accelerate agricultural innovation among small producers; ii) building capacity in national research and extension agencies in the use of the approach; iii) stimulating further learning by accumulating experiences and iv) enabling more inclusive and efficient agricultural and food systems in Africa.

Against that backdrop, a project is proposed that will cover the following strategic themes: i) improved agricultural technologies and effective production services; ii) integration of poor rural people into available food value chains and iii) technical and vocational skills development to enhance more broad-based empowerment of the population while making the approach domicile and part and parcel of the national development efforts.

At present, the SROs contain immense capacity and this will be exploited to the maximum extent practicable. In this regard, the SROs will be responsible for handling the contract(s) with the PLS teams in their sub-region – CORAF will be budget holder for the KKM PLS, ASARECA for the LK PLS and CCARDESA for the ZKM PLS.<sup>1</sup> Based on their experience with innovation platforms under the SSA-CP, the PLS teams will (be invited to) set up new agricultural IPs.

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1. Research organizations participating in the KKM PLS are: IITA, IFDC, INRAN,xxxx; in the LK PLS are: CIAT, IWMI, ICRISAT, ISAR, Makerere University, xxxx; and in the ZKM PLS are: CIAT, Bioversity,

## 4.5 Scaling up strategy

Next comes the need to implement all the four steps and initiate the scale up and scale out phases. The scaling-up strategy refers to the plans and actions necessary to fully establish the IAR4D IP in policies, programmes and service delivery in the new user organizations. This involves activities such as simplifying and modifying certain processes in the

IAR4D IP so as to improve ease of transfer to the new geographical areas, villages and districts/ local government areas to build training capacity in the user organizations, linking IAR4D IP to agricultural sector reform work with political leaders to gain acceptance for the innovation and planning to address human resource shortages.

Scaling up involves strategic choices along many dimensions. The key decision is related to the type of scaling up used, including the process of communicating the innovation and preparing users in its application (dissemination and advocacy), the organizational options selected for implementing the process. assessing costs and resource mobilisation and monitoring and evaluation.

At present, the SROs contain immense capacity and this will be exploited to the maximum extent practicable.

## 4.6 Type of scaling up

For strategic scaling up of IAR4D IP, both vertical scaling up (institutionalisation) and horizontal scaling up (expansion/replication) are recommended. This is because IAR4D IPs in some African countries are at different stages of development. Some are still in their “establishment” phase, others are either approaching or have reached their “maturity” phase. In some it has expanded within a state, bringing in an increasing number of villages and districts and at a stage to be rolled out state-wide, from state-to-state and ultimately up to the national level. Some are already placed to advocate for policy and institutional level reforms. However, all these require the same steps for scaling out outlined above.

### 4.6.1 Strategic horizontal scaling up or scaling out (expansion/replication)

This is when innovations are replicated in different geographical areas or are extended to serve larger or new categories of populations.

Advocate with decision makers who will be instrumental to making expansion effective. This action was very useful in the pilot IPs and therefore will also be useful in scaling up and out.

- Organise meetings with decision makers and stakeholders so as to engage them in the process.
- Create a multi-stakeholder team. To jointly identify constraints, source solutions, implement solutions and learn lessons.
- Establish an advisory board or some sort of mechanism to develop buy-ins from key decision makers/adopters.

- Realistic plans should be made for the expansion of the IP to new sites based on entry points/constraints.
- A few new IP sites should be used as starting points to gain experience before broader expansion (phased introduction).
- There should be capacity building for the stakeholders at all levels (district/LGA, state and national).
- The use of briefs, leaflets, radio, television and visits to demonstration sites of proven IPs to communicate successes of the IAR4D IP to new stakeholders is essential.

**Organizational process: The following actions are necessary for the organizational process of scaling up the IAR4D IPs**

- Establishment of targets/time-table of number of IP sites based on users' constraints.
- Consideration of the constraints of the resource team.
- Consideration of different sites' needs when adapting the IP.
- Establishment of effective coordination between partners.
- Use of participatory approach to involve key stakeholders and community members in processes.
- Decentralisation of networks and partnerships to replicate and sustain IP success models.

**Costs/resource mobilisation for IAR4D**

Resources are essential for all types of scaling up. They help to 1) expand the IP to new geographical sites or population groups; 2) make possible the considerable time and effort needed to obtain political support and for advocacy to institutionalise the IAR4D in new areas.

**To establish consistent funding for scaling up IAR4D, the following actions must be taken:**

- Writing of a proposal for funding of scaling up to donors and internal organizations. A sample of this is included in Annex 3.
- Costs of scaling out should be budgeted.
- There is a need to partner with relevant initiatives and user organizations on funding to reduce cost/have economies of scale.

**Monitoring and evaluation (M&E)**

For any type of scaling up, M&E are key ingredients of a successful strategy in various important respects. First, during the implementation of the pilot or experimental stage, the IPs should be monitored to learn of the drivers and spaces (opportunities and constraints) that may affect an eventual scaling up process, and the impact of the pilot on the lives of the rural poor should be evaluated. Second, during the scaling up process, monitoring will provide important feedback on any unforeseen aspects of the scaling up pathway and permit adapting the pathway as needed. Intermittent evaluation of the impact of the scaled up programme, both during implementation and after completion, is needed to ensure that the expected results actually materialise.

### **For strategic scaling up of IAR4D IP, the following actions must be taken:**

- Development of relevant indicators for monitoring the process of IP expansion.
- The existent service statistics for monitoring must be utilised.
- Conducting of rapid qualitative evaluation to gain insight into process of expansion and constraints.
- Conducting of studies to evaluate outcomes and impact of IAR4D IP expansion process.
- Using the results of those studies conducted.

#### *4.6.2 Institutionalisation of IAR4D (strategic vertical scaling up)*

This takes place when formal government decisions are made to adopt the innovation on a national or state level and it is institutionalised through national planning mechanisms, policy changes or legal action. Systems and structures are adapted and resources redistributed to build the institutional mechanisms that can ensure sustainability. A good example of institutionalisation of IAR4D is how the Agricultural Research Council of Nigeria (ARCN) has integrated IAR4D approach into National Agricultural Policy with all the NARS using this concept and providing funding for sustainability. The government of Sierra Leone is also using the same strategy for its research activities. One area that has not been explicitly explored in the past is the use of curriculum development and revision as an instrument for entrenching the concept and making it a fixture of educational and development systems. The possible use of this instrument for the institutionalisation of the IAR4D will be examined in this section, along with the other instruments highlighted above.

There is also a need to ensure support for strengthening women's groups and organizations

##### **4.6.2.1 Dissemination and advocacy**

The following actions should be carried out to strategically institutionalise IAR4D.

Policy briefs, success story reports and publications and evaluation reports on IAR4D IP should be used to advocate with decision makers. (There are many such reports on the FARA and SRO websites).

- Meetings should be organised with key stakeholders.
- Personal advocacy with influential people (political leaders, ministers, LGA chairmen, etc.) should be arranged

Visits to demonstration sites to convince stakeholders and political leaders should be organised. For example, the participation of the wife of the Katsina State Governor in one of the field days of one of the pilot IPs in Katsina State, Nigeria encouraged leaders from the local governments to participate in the IP.

There is also a need to ensure support for strengthening women's groups and organizations.

## **Organizational process**

The following actions should be carried out to set up a strategic organizational process for scaling up the IAR4D.

- Selection of an experienced resource team that can facilitate changes in the institutionalisation of the IP.
- Enhancing the capacity of the resource team in advocacy, strategic management and facilitation, etc.
- Use of national, regional and local fora to advocate integration of IAR4D concept in LGA development plans.
- Establishment of time target to scale up and prioritise IAR4D IPs.

## **Costs and resource mobilisation**

- Project proposals should include cost of advocacy activities.
- Costs of personnel should be budgeted.
- There is a need to advocate for a national budget for scaling up IAR4D activities.

## **Monitoring and evaluation**

- There is a need to develop simple monitoring and evaluation indicators for tracking activities related to scaling up of IPs.
- The results of M&E activities should be used to refine the process of scaling up in the course of the same.

This framework translates into the following activities.

### **1. Planning the scaling up of IAR4D IP**

- Identifying and improving the IAR4D IP
- Identifying user organizations that will adopt IAR4D
- Identifying and developing resource teams for scaling up
- Assessing the environment and writing proposals for funds

### **2. Creating a scaling up strategy for IAR4D**

- Legitimising change (through visits, reports, radio, TV, etc.)
- Carrying out advocacy for adoption of IAR4D (contacting leaders, LGA, state and national level stakeholders, etc.)
- Mobilising resources

### **3. Implementing the scaling up**

- Strengthening organizations through capacity building
- Coordinating action (through stakeholder fora, meetings, etc.)
- Carrying out M&E

Chapter 5

Conclusion and way forward





## 5.1 Introduction

Ultimately, this study aims to propose a blueprint for the scaling up/out and institutionalisation of the IAR4D concept, which uses IPs to maximise the benefits derived from agricultural value chains. What is intended in this chapter is to summarise the document with respect to the major themes examined, the objectives outlined, the key conclusions drawn from the literature review and the lessons learned from the vast array of interventions done by the development community.

## 5.2 Summary

This document began by examining the concept of “scaling up” and its entry into the international development lexicon. It examined how different development actors have conceptualised scaling up and applied it and also reviewed and related the way the key development challenges that confront the agricultural sector of SSA have evolved over the years. A major theme that came up frequently was the changes that have taken place in the research systems of the continent and how such changes have been clear and systematic responses to the emerging development paradigms, both national and international/global. These reviews culminated in the identification and specification of a clear problem articulated as the failure to come up with a shared vision of what constitutes scaling up and scaling out and to what extent this has led to incoherent actions in terms of both the scale of development interventions and their coverage in both geographical and thematic terms. The broad and specific objectives were thus outlined to harmonise the disparate perspectives and achieve a common understanding and propose a blueprint for applying this concept within the framework of the Integrated Agricultural Research for Development (IAR4D) and the IPs through which it is being implemented in a number of countries and pilot learning sites across the continent. The first chapter ended with a description of the methodology employed in preparing this document.

The second chapter focused on the theories and concepts of scaling up and scaling out and, in line with the ToR, attempted to synthesise a comprehensive review of the theories as an international public good. In achieving this aim, the chapter explored the history of the concept and how it has been incorporated in academic and development literature. As part of this review, successful scaling up initiatives were identified and profiled. Attempts at strategy development as part of the institutionalisation of similar development concepts were also reviewed.

In Chapter 3, attention was turned to examining the lessons from successful scaling up projects in order to guide the strategy development. In this regard, the chapter continues the literature review that began in the previous chapter and reveals a number of successful scaling up schemes in respect to specific technologies and concepts. Such lessons were drawn from different parts of the world and care was taken to ensure the inclusion of diverse experiences and pathways.

Chapter 4 presented the key issues in a scaling up strategy and outlined the steps required in ensuring that the process is well entrenched. Particular focus was laid on the SSA-CP and the IAR4D, which are the main targets of development. The current configuration of the IPs



was described and the pattern of actions for institutionalisation, expansion and replication highlighted. Key success factors were also detailed.

### **5.3 Conclusion**

According to Bradach (2004), substantive evidence of an innovation's success is needed in order to make a strong case for replicating it and extending its coverage. This evidence has been established for IAR4D and given the phenomenal success it has recorded, there is urgent need to expand it geographically to reach more people and to entrench it within the national development policy of countries. What is now is a focused attention, strategic planning and adequate management as well as resource allocation; all this has been highlighted in the proposed framework to avoid what IFAD (2010) refers to as "type 1 error" – too little scaling up; and "type 2 error" – wrong scaling up.

## Annex 1. Summary of the conceptual evolution of scaling-up

	1995 (Uvin)	2000 (Uvin, et al)	2001 (CGIAR)	2003 (World Bank)
<b>Context</b>	How to transition successfully from a pilot/ grassroots project to large-scale operation? How to scale up organizations and their programme?	Expansion is one (outdated) approach among several alternative routes to scaling up. Multiplication, mainstreaming and influencing other social actors also deserves attention.	It is not technologies that are scaled up but the processes and principles behind the technologies and innovations.	Historically, successful projects have been one time investments without strategies for leveraging projects to a larger scale or to broader coverage to increase efficiency and impact development in a country or region..
<b>Knowledge evolution</b>	A pre-theory of scaling up. There is little unanimity or knowledge about the real implication of scaling up or its precise meaning. Indeed the term has been employed very ambiguously to describe a larger variety of processes.	Scaling up is about diversity rather than standardisation, process rather than project, social rather than financial capital, synergy rather than substitution or competition.	Meaningful discussions on scaling up should also detail the role and responsibilities of local government, organizations and institutions at the local, national, regional and global levels.	Scaling up refers not only to the ends (socio-economic, human and environmental impact) but also the means (systems, policies and processes).
<b>Proposed definition</b>	Quantitative scaling up: increase the number of people involved through replication. <b>Functional scaling up:</b> projects and programmes expand the type and scope of activities. <b>Political scaling up:</b> move beyond service delivery to institutional changes. <b>Organizational scaling up:</b> organizations improve their efficiency and effectiveness to allow growth and sustainability.	Scaling up is about 'expanding impact' and not 'becoming "large." Impact is defined as affecting the behaviour or positively influencing the lives of the poor. This can be achieved directly or indirectly (training, advocacy, knowledge creation or advice).	Scaling up brings more quality benefits to more people over a wider geographical area, more quickly, more equitably and more lastingly (it proposes an objective rather than an actual definition).	Scaling up is the efficiency increase of socioeconomic impact from a small to large scale of coverage.
<b>Takeaways</b>	The nature of the process is multi-dimensional.	Scaling up involves (but is not limited to) advocacy and changing behaviours of several actors (not only the governments).	The MDGs provide a suitable framework for understanding and especially undertaking scaling up as a vehicle for development.	Importance of not losing sight of the poor; importance of understanding contextual factors; need to balance contextual and universal approaches to scaling up( a.k.a replication vs. adaptation).

	2004 (Uvin)	2008 (Uvin, et al)	2009 (CGIAR)	2012 (World Bank)
<b>Context</b>	In addition to technologies, methodologies can also be end product research.	Development effectiveness depends on whether and how successful development interventions are scaled up and sustained.	How to achieve national coverage rather than a focus on development enclaves? Scaling up is often attempted without proper guidance, preparation and tools, leading to frustrating experiences.	After decades of neglect, volatile food prices and persistence of hunger and malnutrition, government, donor and key actors must focus on how successful development intervention can be scaled up to make essential gains in agriculture, rural development and nutrition.
<b>1995 Knowledge evolution</b>	Scaling up must be sustainable. This implies leaving people with the adaptive capacity to deal with problems as they arise. This process is inherent in adaptive management	Scaling up is not only about the quality of impact, scale and sustainability. In practice it involves a multidimensional process of change and adaptation	Scaling up must also ensure real participation by (and linkages with) all stakeholders, improved accountability, technical soundness and sustainability.	Scaling up is about ensuring value for money, not just a question of more investment and more aid. It is not enough to merely replicate innovations.
<b>Proposed definition</b>	<b>Horizontal scaling up:</b> Geographical spread to cover more people and communities through replication and adaptation. <b>Vertical scaling up:</b> institutional in nature and involves other sectors or stakeholder groups in the process of expansion-from the level of grassroots to international level (e.g. policymakers, donors and development institutions).	Scaling up means explaining, adapting and sustaining successful projects, programmes or policies in different places and over time to reach a greater number of people. (Originally proposed by the World Bank, but explicitly endorsed by the authors.)	Scaling up is taking one or several islands of success that have addressed a national development problem and multiplying them to cover as much territory and population as possible and appropriate.	Scaling up is part of a broader process of innovation and learning (a new idea, model or approach is piloted; with M&E, the knowledge acquired from the pilot is used to scale up). The process is generally not linear but an iterative and interactive cycle as the experience from scaling up feeds back into new ideas and learning.
<b>Takeaways</b>	Scaling up requires adapting knowledge and innovations to end-users. Adaptation and application of innovation to different contexts requires understanding the knowledge and principles underlying the innovation. Such understanding is achievable through capacity building.	A decision to scale up requires a reflection on the optimal size of the programmes. It does not imply national coverage. Scaling up successful and promising new initiatives requires organizational and fiscal space.	Harness social capital through empowerment and increase social capital through scaling up. Two directions on accountability as it flows from empowerment capacity development is cross-cutting across all actors involved in the process.	Horizontal and vertical scaling up usually have to be combined to achieve success. Scaling up requires a long term engagement and a systematic and deliberate approach in defining the scaling up pathway. Sustainability and scalability are deeply intertwined.

Source: UNDP (2013).

## References

- Adekunle, A.A.(2012). Engendering Growth through the Innovation Fund for Agricultural Transformation. *Learning Publics Journals of Agriculture and Environmental Studies*, 2 (4): 1-12.
- Adekunle, A.A. and A.O. Fatunbi (2012). Approaches for Setting-up Multi-Stakeholder Platforms for Agricultural Research and Development. *World Applied Sciences Journal*, 16 (7): 981-988.
- Adekunle, A.A. (2014). Personal discussion and contribution at the FARA colloquium in Johannesburg, November 25-27.
- Ajayi, M.T. (2014). Personal discussion and contribution at the FARA colloquium in Johannesburg, November 25-27.
- Ayanwale, A.B, A.A. Adekunle, A.A. Akiola, and V.A. Adeyemo (2013). Economic Impacts of Integrated Agricultural Research for Development (IAR4D) in the Sudan Savanna of Nigeria. *African Development Review*, 25 (1): 30-41.
- Bacon, A., Walker, H., Schwartz, A., O’Hara, D., Calkins, C.F. and Wehmeyer, M. (2011). Lessons Learned in Scaling-Up Effective Practices. The National Gateway to Self-Determination. Missouri, Kansas, Oregon, New York, Illinois, USA.
- Binswanger H.P., Aiyar S.S. Scaling up community-driven development: theoretical underpinnings and program design implications. Washington, DC, the World Bank, 2003 (World Bank Policy Research Working Paper No. 3039).
- Binswanger, H. and T. Nguyen (2005). A Step by Step Guide to Scale Up Community Driven Development. *African Water Laws: plural leg-islative frameworks for rural water management in Africa*, Van Koppen, B. et al. (eds.). Pretoria: International Water Management Institute.
- Bradach, J. (2004). Going to Scale: The Challenge of Replicating Social Programs. *Stanford Social Innovation Review Spring 2003*, Leland Stanford Jr. University.
- Burns, S.C. (2013). “Information sharing and advocacy in social enterprise” (mimeo).
- Chester, R. (2005). Achieving scale in Agriculture: Past Efforts, Present Promise. USAID Discussion Paper.
- Cleaver, K. (2013). The importance of scaling up for agricultural and rural development. And a success story from Peru. IFAD Occasional Paper 4.
- Cooley L., Kohl R. ( 2005). *Scaling up – a conceptual and operational framework*. Washington, DC, Management Services International. Obtained via url: [http:// www.msiworldwide.com/documents/ScalingUp.pdf](http://www.msiworldwide.com/documents/ScalingUp.pdf), accessed 15 August 2014.
- Cooley, L. and Kohl, R. (2006). Scaling Up from vision to large scale change. Washington, Management Systems International (MSI)

- ExpandNet, World Health Organization (2010) *Practical guidance for scaling up health service innovations*. Geneva, World Health Organization, ([http://www.who.int/reproductivehealth/publications/strategic\\_approach/9789241598521/en/index.html](http://www.who.int/reproductivehealth/publications/strategic_approach/9789241598521/en/index.html), and <http://www.expandnet.net/tools.htm>).
- Ferroni, M. and Castle, P. (2011). Public-Private partnership and sustainable agricultural development, *Sustainability 3*: 1064-1073.
- Gonzales, F., Arteaga, E. and Howard-Grabman, L. (1998). Scaling up the Warmi Project: Lessons learned: Mobilizing Bolivian Communities Around Reproductive Health. Save the Children Federation, Inc./Bolivia Field Office
- Gündel, S., Hancock, J. and Anderson, S. (2001). Scaling-up strategies for research in natural resources management: A comparative review. Chatham, UK: Natural Resources Institute (unpublished report).
- Hancock, J. (2003). Scaling Up the Impact of Good Practices in Rural Development: A Working Paper to Support Implementation of the World Bank's Rural Development Strategy. Report No. 26031. World Bank, Washington, DC.
- Hartmann, A. and Linn, J.F. (2008). Scaling up: A framework and lessons for development effectiveness from literature and practice. Wolfensolin Centre for Development. Working Paper 5.
- Hartmann, A., Kharas, H., Kohl, R., Linn, J., Massler, B and Sourang C (2013). Scaling up programs for rural poor: IFAD's experience. Lessons and prospects working paper 54.
- Hawkins, R.P., M. Kreuter, K. Resnicow, M. Fishbein, and A. Dijkstra. (2008). Understanding tailoring in communicating about health. *Health Education Research*, 23 (3): 454-486.
- Herrero M , Notenbaert A., Thornton P., Pfeifer C., Silvestri S., Omolo A., Quiros C. (2014). A framework for targeting and scaling-out interventions in agricultural systems. CCAFS Working Paper no. 62. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. Available online at: [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org)
- IFAD (2010). Guidelines for Scaling Up. COSOP Source Book, Volume 2, Section XXI
- IFAD.(2010) "IFAD's Strategic Framework 2007-2010: A summary" <http://www.ifad.org/sf/>.
- International Institute of Rural Reconstruction (IIRR) (2000). *Going to Scale: Can We Bring More Benefits to More People More Quickly?* Conference highlights April 10-14. Philippines: IIRR.
- Kohl, R.(2007). "Key Points for Scaling Up, Management Systems International," Power Point Presentation to the Wolfensohn Center.
- Korten, D. (1980). Community Organization and Rural Development: A Learning Process Approach. *Public Administration Review*, 40(5): 480-511.
- Korten, D. (1990). *Getting to the 21<sup>st</sup> Century, Voluntary Action and the Global Agenda*. West Hartford: Kumarian Press.

- Lattimer, C. (2013). *Piloting and Scaling Up of Innovations and Good Practices*. UNICEF India Country Office Guidelines, New Delhi.
- Lilja, N., Jacqueline Ashby, J., and Johnson, N.(2000). *Scaling Up and Out the Impact of Agricultural Research with Farmer Participatory Research*. *Impact of Agricultural Research with FPR in Pachico*, D and Fujisaka, S (eds.) *Scaling up and out: Achieving widespread impact through Agricultural research*. CIAT, Columbia.
- Linn, J., Hartmann, A., Kharas, H., Kohl, R. and Massler, B., 2010. *Scaling Up the Fight Against Rural Poverty: An Institutional Review of IFAD's Approach*. Brookings Global Economy and Development Working Paper 43. [www.tinyurl.com/c2tuvo3](http://www.tinyurl.com/c2tuvo3).
- Linn, Johannes, ed. (2012). *Scaling Up in Agriculture, Rural Development, and Nutrition. Lessons on scaling up: Opportunities and Challenges for the future*. Focus 19. Brief 20, International Food Policy Research Institute,
- Makini, F.W., Kamau, G.M., Makelo, M.N. and Mburathi, G.K. (2013). *A Guide for Developing and Managing Agricultural Innovation Platforms*. Australian Government (Australian Centre for International Agricultural Research).
- Management Systems International (MSI) (2012). *Scaling Up from vision to large scale change. A Management Framework for Practitioners*. Second Edition, 2012.
- Mansuri, G. and Rao, V. (2004). *Community-Based and Driven Development: A Critical Review*. *Policy Research Working Paper Series No. 3209*, World Bank.
- Mazor, A. (2011). *A Tradition of Innovation*. *The Journal of Jewish Communal Service*, 86 (1//2):
- Menter, H., Kaaria, S., Johnson, N. and Ashby, J. (2004). *Scaling Up in Pachico*, D and Fujisaka, S (eds.) *Scaling up and out: Achieving widespread impact through Agricultural research*. CIAT, Columbia.
- Millar, J. and Connell, J.E. (2009). *Strategies for scaling out impacts from agricultural systems change: the case of forages and livestock production in Laos*. *Agric Hum Values*.
- Norder, J.D. (No year). *Investigating and Investing in Up-Scaling in Agriculture*. Looking at the role of DSO in stimulating Up-Scaling. Ministry of Foreign Affairs in the Netherlands, DGIS.
- Ovretveit, J. (2010). *Scale Up and Spread: The International Health Experience*. Conference to Advance the State of the Science and Practice on Scale-up and Spread of Effective Health Programs, Washington, DC.
- Schalkwyk van G.(2013). *A Roadmap for Scaling Up Technology Adoption*. Feed the Future Newsletter.
- Senderowitz, J. (2000). *A Review of Program Approaches to Adolescent Reproductive Health*. Poptech Assignment Number 2000.176. Population Technical Assistance Project, June, 2000.
- Simmons R, Fajans P, Ghiron L, eds.(2007). *Scaling up health service delivery: from pilot innovations to policies and programmes*. Geneva, World Health Organization, 2007(<http://>

- [www.who.int/reproductivehealth/publications/strategic\\_approach/9789241563512/en/index.html](http://www.who.int/reproductivehealth/publications/strategic_approach/9789241563512/en/index.html), and <http://www.expandnet.net/tools.htm>).
- Simmons, R. and J Shiffman (2006). Scaling Up Reproductive Health Service Innovations: A Framework for Action. Chapter 1 in: Simmons, R. *et al.* (eds). *Scaling Up Health Service Delivery: From pilot innovations to policies and programmes*. Geneva: World Health Organization.
- Sourang, M.C. (2012). Scaling up in agriculture, rural development and nutrition; IFPRI, Focus 19, Brief 17.
- Smith, J. and Charlotte, C. (2000). Getting to Scale in Young Adult Reproductive Health Programs. Focus Tool Series 3. FOCUS on Young Adults, April 2000.
- Tyler, R.W. (1949), *Basic Principles of Curriculum and Instruction*. Chicago: University of Chicago Press.
- UNDP (2013). Guidance Note. Scaling Up Development Programmes
- Uvin, P. (1995). Fighting Hunger at the Grassroots: Paths to Scaling Up. *World Development*, 23(6): 927-939.
- Uvin, P. and D. Miller (1996). Paths to scaling-up: Alternative strategies for local non-governmental organizations. *Human Organization*, 55(3): 344-354.
- WHO/ExpandNet (2010). Nine steps for developing a scaling-up strategy. World Health Organization.
- Wiggins, G. and McTighe, J. (1998). What is backward design. *Understanding by Design*. Upper Saddle River, NJ: Merrill Prentice Hall.
- Wigboldus, S. and Leeuwis, C. (2013). Towards responsible scaling up and out in Agricultural Development: An exploration of concepts and principles. Centre for Development Innovation Discussion Paper.
- World Bank (2005). Reducing Poverty, Sustaining Growth: Scaling Up Poverty Reduction. Case Study Summaries. A Global Learning Process and Conference in Shanghai, May 25-27, 2004.
- World Bank (2012). Thinking Systematically about Scaling Up: Developing Guidance for Scaling Up World Bank-supported Agriculture and Rural Development Operations. Agricultural and Rural Development Discussion Paper 53.
- Kaufman, J., Zhang, E. and ZHENMING, X. (2006). Quality of Care in China: Scaling up Pilot project in national reforms. *Studies in 37:1*, 17-28.
- Lobo as cited by Gundel, Hancock and Anderson (2001)
- Management Systems International (MSI) (2012). Scaling Up from vision to large scale change. A Management Framework for Practitioners, Second Edition, 2012.



\*Myers, R. (1984). "Going to Scale," A paper prepared for UNICEF for the Second Inter-Agency Meeting on Community-based Child Development, New York, October 29-31, 1984.

World Bank (2002). *Assisting Russia's Transition: An Unprecedented Challenge*. Operations Evaluation Department, Washington, DC: World Bank.

World Bank, 2003, "Scaling Up the Impact of Good Practices in Rural Development: A working paper to support implementation of the World Bank Rural Development Strategy," Report 26031, [www.tinyurl.com/cprlx77](http://www.tinyurl.com/cprlx77).

MSI is included as it is: Management Systems International (MSI) (2012). *Scaling Up from vision to large scale change. A Management Framework for Practitioners*, Second Edition, 2012.

## Acronyms and abbreviations

ARD	Agricultural Research and Development
ARCN	Agricultural Research Council of Nigeria
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
BRAC	Bangladesh Rural Advancement Committee
CAADP	Comprehensive Africa Agriculture Development Programme
CCARDESA	Centre for Coordination of Agricultural Research and Development for Southern Africa
CGIAR	Consultative Group for International Agricultural Research
CIAT	International Center for Tropical Agriculture
CIMMYT	The International Maize and Wheat Improvement Center
CORAF/WECARD	Council Ouest Centre Africain pour la Recherche et le Developpement Agricole/West and Central African Council for Agricultural Research
DFID	Department for International Development
EC	European Commission
FARA	Forum for Agricultural Research in Africa
IAR4D	Integrated Agricultural Research for Development
IFAD	International Fund for Agricultural Development
IFDC	International Fertilizer Development Center
IFPRI	International Food Policy Research Institute
IIRR	International Institute of Rural Reconstruction
IITA	International Institute of Tropical Agriculture
INRAN	Institut National de la Recherche Agronomique du Niger
IP	Innovation Platform
KISS	Keep It Simple, Stupid
KKM PLS	Kano-Katsina-Maradi Pilot Learning Site
LGA	Local Government Association
LK PLS	Lake Kivu Pilot Learning Site
M&E	Monitoring & Evaluation
MSI	Management Systems International
NARO	National Agricultural Research Organization

NARS	National Agricultural Research System
NGO	Non Governmental Organization
PLS	Pilot Learning Site
RAB	Rwandan Agricultural Board
SAP	Structural Adjustment Programmes
SRO	Sub Regional Organization
SSA CP	Sub Saharan African Challenge Program
UNADA	Uganda National Agro-Input Dealers Association
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WHO	World Health Organization
ZMM PLS	Zimbabwe-Mozambique-Malawi Pilot Learning Site

## About the Authors



**Dr Fatunbi A Oluwole** is an academic /research and development scientist with progressive experience in ***Agronomy (farming systems, soil fertility), technology transfer and research management***. His professional work encompass diverse research and development projects, with primary interest in resource management towards sustainable agricultural production and improvement in livelihood and quality of life of the smallholder farmers.

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knowledge - Diligence - Integrity





## About FARA

FARA is the Forum for Agricultural Research in Africa, the apex organization bringing together and forming coalitions of major stakeholders in agricultural research and development in Africa.

FARA is the technical arm of the African Union Commission (AUC) on rural economy and agricultural development and the lead agency of the AU's New Partnership for Africa's Development (NEPAD) to implement the fourth pillar of the Comprehensive African Agricultural Development Programme (CAADP), involving agricultural research, technology dissemination and uptake.

**FARA's vision:** reduced poverty in Africa as a result of sustainable broad-based agricultural growth and improved livelihoods, particularly of smallholder and pastoral enterprises.

**FARA's mission:** creation of broad-based improvements in agricultural productivity, competitiveness and markets by supporting Africa's sub-regional organizations (SROs) in strengthening capacity for agricultural innovation.

**FARA's Value Proposition:** to provide a strategic platform to foster continental and global networking that reinforces the capacities of Africa's national agricultural research systems and sub-regional organizations.

FARA will make this contribution by achieving its *Specific Objective* of sustainable improvements to broad-based agricultural productivity, competitiveness and markets.

Key to this is the delivery of five *Results*, which respond to the priorities expressed by FARA's clients. These are:

1. Establishment of appropriate institutional and organizational arrangements for regional agricultural research and development.
2. Broad-based stakeholders provided access to the knowledge and technology necessary for innovation.
3. Development of strategic decision-making options for policy, institutions and markets.
4. Development of human and institutional capacity for innovation.
5. Support provided for platforms for agricultural innovation.

FARA will deliver these results by supporting the SROs through these Networking Support Functions (NSFs):

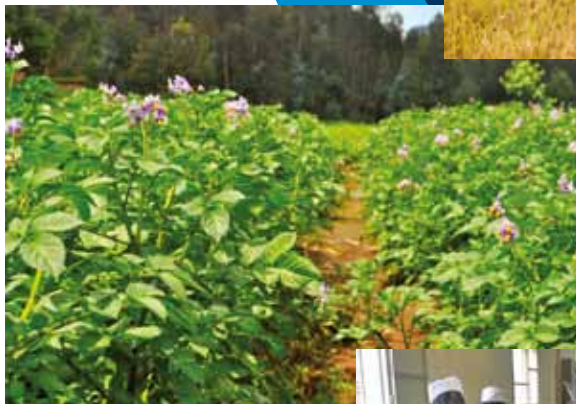
NSF1/3. Advocacy and policy

NSF2. Access to knowledge and technologies

NSF4. Capacity strengthening

NSF5. Partnerships and strategic alliances

FARA's donors are the African Development Bank (AfDB), the Canadian International Development Agency (CIDA), the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), the Danish International Development Agency (DANIDA), the Department for International Development (DFID), the European Commission (EC), the International Development Research Centre (IDRC), the Syngenta Foundation, the United States Department of Agriculture (USDA), the World Bank and the Governments of Italy and the Netherlands.



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