



Food and Agriculture  
Organization of the  
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INRAE



# ENABLING SUSTAINABLE FOOD SYSTEMS

INNOVATORS' HANDBOOK

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INNOVATORS' HANDBOOK

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# ABSTRACT

Sustainable food systems are fundamental to ensuring that future generations are food secure and eat healthy diets. To transition towards sustainability, many food system activities must be reconstructed, and myriad actors around the world are starting to act locally. While some changes are easier than others, knowing how to navigate through them to promote sustainable consumption and production practices requires complex skill sets. This handbook is written for “sustainable food systems innovators” by a group of innovators from Asia, Africa, the Americas and Europe who are leading initiatives to grow, share, sell and consume more sustainable foods in their local contexts. It includes experiences that are changing the organizational structures of local food systems to make them more sustainable. The handbook is organized as a “choose your own adventure” story where each reader – individually or in a facilitated group – can develop their own personalized learning and action journeys according to their priorities. The topics included in this handbook are arranged into three categories of organizational innovations: engaging consumers, producing sustainably, and getting products to market.

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FORMALIZING

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KNOWLEDGE

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# FOREWORD

In 2018, the FAO organized two events tied to innovation: an interactive panel and an innovation fair during the 2<sup>nd</sup> International Symposium on Agroecology in April 2018, and the Innovation Symposium in November 2018. Both events acknowledged innovation as a solution to the challenges that current agriculture and food systems face in their quest for sustainability. They also both clearly placed innovation on the agenda as a means through which the FAO can help member countries to achieve the Sustainable Development Goals (SDGs).

In 2019, the High Level Panel of Experts Report of the Committee on World Food Security on Agroecology and other innovative approaches to sustainable agriculture reinforce the lessons gathered in the FAO's Save and Grow series. Closing nutrient cycles, integrating production systems, and intelligently mitigating climate change offers myriad opportunities for innovation in agroecological production systems. The need for new ways to co-create and share knowledge about sustainable agriculture is a priority for ensuring that users access new types of information, technologies and practices, and that innovations spread. Greater participation by farmers, consumers and local organizations in researching, marketing and guaranteeing the sustainability of food and agricultural products is opening new pathways for dynamic learning processes.

Food system innovations are particularly needed, as the global food system is responsible for the current double burden of malnutrition where hunger and obesity can coexist in the same individual or even in the same country. The 2019 State of Food Insecurity Report highlights the drivers for these phenomena, which include conflict, poverty and marginalization, but also the existing and growing inequalities in food access and utilization. The COVID-19 crisis that backgrounds the publication of this handbook highlights the need for food system innovations, particularly in re-localizing and diversifying these systems in order to ensure their resiliency. Changes in food system organization can prioritize food access for vulnerable communities, promote sustainable agriculture including biodiversity protection, and encourage healthy and nutritious diets. Fundamental to these transitions is to increase producer-consumer exchanges and to change how they interact with and influence their food environments. Rather than staying passive, consumers are becoming increasingly active in the reorganization of food systems as they seek healthy and sustainably grown food, as well as trade systems that build local economies and include smallholder farmers.

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This handbook draws upon a wealth of experiences from over 20 countries and illustrates that food system changes towards sustainability are already underway. These innovations challenge and change norms, institutions, practices and relationships among food system actors. This resource is meant to help those actors who want to contribute to this transition. Drawing upon both scientific and experiential knowledge, the advice and tips provided in this handbook inspire a positive attitude regarding the innovative capacity of local actors around the world and the prospects for enabling the emergence of sustainable food systems.

**Rémi Nono Womdim**

Deputy Director  
Plant Production and Protection Division (AGP)  
FAO



**Anna Lartey**

Director  
Nutrition and Food Systems Division (ESN)  
FAO



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# PREFACE

This handbook is the result of a truly collaborative effort. The process began in 2013 with the purpose of better understanding why and how local actors build local food systems through the construction of markets for sustainable food products, even independently from formal certification. This evolved into a participatory research project that documented innovative initiatives and advanced collective knowledge from across four continents about the institutional innovations necessary to support transitions to sustainable food systems. Starting from a small group of three women, new collaborators joined every year and the process expanded and cross-fertilized our geographic, gendered and organizational experiences.

The result of this experience is the present handbook, which is the third in a series of FAO/INRAE publications related to institutional innovations in domestic and local markets for sustainable agriculture. The ideas and text found in this handbook was written collectively through two writing workshops (in Chiang Mai, Thailand in 2016 and in New Delhi, India in 2017) and virtual working groups throughout 2017. In 2018, the draft handbooks were tested by nascent initiatives in New Delhi, India and Thies, Senegal. These experiences helped to ground the material included in this handbook and ensure that it is of interest to users.

With this handbook, the core message that we want to convey is that enabling food system change requires collaboration and systemic thinking about what is required to produce the food we eat – in terms of knowledge, materials, technologies, relationships, values and natural processes. Given the world’s rich cultural and biological diversity, there is no need for two food systems to look exactly alike for them to be considered sustainable. Rather than a constraint, this reality should be considered as an opportunity to innovate, to create new rules for how to grow, trade and eat food. Thus, the importance of engaging others in collective visioning of how future food systems should look is a fundamental step in realizing food system transformation. We hope that this handbook will contribute to this aim.

## **Allison Marie Loconto**

Deputy Director  
Interdisciplinary Laboratory  
for Science, Innovation  
and Society (LISIS)  
INRAE

## **Anne-Sophie Poisot**

Projects Coordinator  
Plant Production and  
Protection Division (AGP)  
FAO

## **Pilar Santacoloma**

Agri-food Systems Officer  
Nutrition and Food Systems  
Division (ESN)  
FAO

## **Marcello Vicovaro**

Sustainable Markets  
Consultant  
Nutrition and Food Systems  
Division (ESN)  
FAO



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**Allison Loconto**, INRAE/FAO

**Marcello Vicovaro**, FAO

**Pilar Santacoloma**, FAO

**Anne-Sophie Poisot**, FAO

**Ashish Gupta**, Jaivik Haat/Gram Disha Trust

**Michael Commons**, Earth Net Foundation

**Jocelyn Parot**, URGENCI

**Oscar Javier Nieto**, Familia de la Tierra

**Carmen Cabling**, Quezon PGS

**Jaime Aguirre**, Familia de la Tierra

**Jelena Petrov**, RERA SD

**Julie Matovu**, FreshVeggies Ltd.

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**Rosinah Mbenya**, PELUM Kenya

**Emmanuel Simbua**, Tea Research Institute of Tanzania (TRIT)

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**Patricia Flores**, IFOAM Organics International

**Andrea Moya**, Claudia Helena Prieto Parque Temático en Salud Pública Chaquen,  
Subred Integrada De Prestación de Servicios de Salud Sur.

**Mathew John**, Keystone Foundation

**José Antonio da Silva Marfil**, Ecovida

**Darli BENGH**, Ecovida

**Shi Yan**, Shared Harvest

**Chris May**, IFOAM Organics International

**René Piamonte**, Biodynamic advisor (Terrahabilis - Demeter)

**Susan Boohaker**, FAO/American University of Rome

**Collier Lumpkin**, FAO/American University of Rome

**Zachary Reif**, FAO/American University of Rome

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# ACRONYMS

**ACOPA** Association of Consumers of Agroecological Products of Paraná - Brazil

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**APEGA** Peruvian Gastronomy Society

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**ANPE** National Association of Organic Producers of Peru

---

**BAFS** Bureau of Agriculture and Fisheries Standards - The Philippines

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**BFM** Beijing farmers' market - China

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**BMZ** Federal Ministry of Economic Cooperation and Development - Germany

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**CACP** Commission for Agriculture Cost and Prices - India

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**CDPH** Centre for the Development of Human Potential - Colombia

---

**COPACO** Community Participation Committees in Public Health - Colombia

---

**CONAB** Companhia Nacional de Abastecimento - Brazil

---

**CSA** community supported agriculture

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**CSO** civil society organizations

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**CSR** corporate social responsibility

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**ECOWAS** Economic Community of West African States

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**ELUM** ecological land use management

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**EU** European Union

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**FAO** Food and Agriculture Organization of the United Nations

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**FDT** Familia de la Tierra - Colombia

---

**FFS** farmer field schools

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**FNDASP** National Agro-Sylvo-Pastoral Development Fund - Senegal

---

**FNRAA** National Agriculture and Agri-Food Research Fund - Senegal

---

**FSSAI** Food Safety and Standards Authority of India

---

**GAP** Good Agricultural Practices

---

**GEF** Global Environment Facility

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**GMO** genetically modified organism

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**GPAFS** Global Partnership for Agriculture and Food Security

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<b>ICA</b>	International Cooperative Alliance
<b>ICS</b>	internal control system
<b>IFAD</b>	International Fund for Agricultural Development
<b>IFOAM</b>	International Federation of Organic Agriculture Movements
<b>IFPP</b>	Institutional Food Procurement Programmes
<b>IICA</b>	Inter-American Institute for Cooperation on Agriculture
<b>ILUD</b>	integrated land-use design
<b>INRAE</b>	French national institute for agriculture, food and the environment
<b>IPBES</b>	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
<b>IPPS</b>	Institutional Procurement Programs
<b>IPM</b>	integrated pest management
<b>IT</b>	information technology
<b>JKUAT</b>	Jomo Kenyatta University of Agriculture - Kenya
<b>LANAC</b>	Laboratoire National d'Analyses et de Contrôle - Senegal
<b>MAIL</b>	Market Access Improved Livelihoods - Uganda
<b>MASIPAG</b>	Magsasaka at Siyentista Para sa Pag-unlad ng Pagsasaka - The Philippines
<b>MFGS</b>	MASIPAG Farmers Guarantee System - The Philippines
<b>MIDIS</b>	Ministry of Development and Social Inclusion – Peru
<b>MKSP</b>	Mahila Kisan Sashaktikaran Programme - India
<b>MSP</b>	minimum support price
<b>NGO</b>	non-governmental organization
<b>NMSA</b>	National Mission on Sustainable Agriculture - India
<b>NOA</b>	Namibian Organic Association
<b>NRWRP</b>	National Reforestation and Watershed Rehabilitation Programme - Trinidad and Tobago
<b>PAA</b>	Food Procurement Programme - Brazil
<b>PKVY</b>	Traditional Farming Progressive Scheme - India
<b>PNAE</b>	National School Feeding Programme - Brazil
<b>ODA</b>	Official Development Assistance
<b>OFN</b>	Open Food Network
<b>PAAMG</b>	The Food Purchase Programme Management Group – Brazil

<b>PGS</b>	participatory guarantee system
<b>PMR</b>	participatory market research
<b>REDD</b>	reducing emissions from deforestation and forest degradation
<b>RERA SD</b>	public institution for development and coordination of Split-Dalmatia Region - Croatia
<b>SADMAD</b>	Sustainable Food System to Fight Malnutrition in Dakar - Senegal
<b>SAFA</b>	Sustainability Assessment of Food and Agriculture systems
<b>SAG</b>	Servicio Agrícola y Ganadero - Chile
<b>SCOPE</b>	The Schools and Colleges Permaculture Programme - Kenya
<b>SDG</b>	Sustainable Development Goal
<b>SFS</b>	sustainable food system
<b>SHARP</b>	Self-evaluation and Holistic Assessment of climate Resilience of farmers and Pastoralists
<b>SMF</b>	small and marginal farmers
<b>SWOT</b>	strengths, weaknesses, opportunities and threats
<b>TAC</b>	Tourism Action Committee
<b>TIDCO</b>	Tourism and Industrial Development Company of Trinidad and Tobago
<b>TOT</b>	training of trainers
<b>TRIT</b>	Tea Research Institute of Tanzania
<b>TWG</b>	Technical Working Group
<b>UEMOA</b>	West African Economic and Monetary Union
<b>VMGV</b>	vision, mission, goals and values
<b>WATCO</b>	The Wakulima Tea Company - Tanzania

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## KEY CONCEPTS

**AGROECOLOGY** is an integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems. It seeks to optimize the interactions between plants, animals, humans and the environment while considering the social aspects that need to be addressed for a sustainable and fair food system. The 10 Elements of Agroecology are a guide for policy-makers, practitioners and stakeholders in planning, managing and evaluating agroecological transitions: diversity; synergies; efficiency; resilience; recycling; co-creation and sharing of knowledge; human and social values; culture and food traditions; responsible governance; circular and solidary economy. The 10 Elements are interlinked and interdependent (FAO, 2018a).

**BOX SCHEMES**, also known as paniers or canastas, are a specific type of direct market relationship or short supply chain where the producer organizes a box delivery of products directly and regularly to consumers. Although the level of commitment might differ substantially, these schemes are often equated with community supported agriculture (CSA) (see definition below).

**CERTIFICATION** is a procedure through which a party provides written assurance that a product, process or service conforms with certain standards (ISO, 2012). Certification can be understood as a form of communication along the supply chain. The certificate demonstrates to the buyer that the supplier complies with certain criteria, which might be more convincing than if the supplier alone provided the assurance. In this handbook, we use the word “guarantee” rather than “certification”, as we are exploring how a variety of actors can ensure that other actors are following specific standards for sustainability (FAO, 2003).

A **CIRCULAR ECONOMY** is based on the “sharing, leasing, reuse, repair, refurbishment, and recycling” of products and materials in an ideally closed loop. The goal is to reduce waste by keeping products and materials within the economy (Whitaker *et al.*, 2017).

**COMMUNITY SUPPORTED AGRICULTURE (CSA)** is a partnership between a farm and consumers where the risks and rewards of farming are shared. Originally developed as the Teikei model in Japan in the 1970s, each CSA is organized differently. However, four fundamental principles are commonly shared : “1) Partnership: CSA is based on a partnership, usually formalized as an individual contract between each consumer

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and the producer and characterized by a mutual commitment to supply one another (with money and food) over an extended period of time, beyond any single act of exchange. Contracts, oral or written, last for several months, a season or a year. 2) Local: CSAs are part of an active approach to relocalize the economy. However, “local” in the CSA movement is not restricted to a geographical meaning. The idea is that local producers should be well integrated into their surrounding areas: their work should benefit the communities which support them. 3) Solidarity: CSAs are based on solidarity between producers and support groups and involve: sharing both the risks and the benefits of a[n] healthy production that is adapted to the natural rhythm of the seasons and is respectful of the environment, of natural and cultural heritage, and of health; paying a sufficient fair price up-front to enable farmers and their families to maintain their farms and live in a dignified manner. 4) The producer/consumer tandem is based on direct person-to-person contact and trust, without intermediaries or hierarchy” (Bashford *et al.*, 2013; URGENCI, 2016).

A **FOOD SYSTEM** comprises all the elements (natural resources, people, inputs, processes, infrastructures, institutions, produce, etc.) and activities related to the production, processing, distribution, preparation and consumption of food, as well as the outputs of these activities, including socio-economic and environmental outcomes (HLPE, 2014). In this handbook, we also consider end-of-life waste management as an essential element of a food system.

**INNOVATION** is the process by which individuals or organizations master and implement the design and production of goods and services that are new to them, irrespective of whether they are new to their competitors, their country or the world (FAO, 2014). “Innovation in agriculture cuts across all dimensions of the production cycle along the entire value chain – from crop, forestry, fishery or livestock production to the management of inputs and resources, to organization and market access. It may, for instance, involve planting new crop varieties, combining traditional practices with new scientific knowledge, applying new pest control and post-harvest practices or engaging with markets in new, more rewarding ways. Innovation is not just about technology, which on its own may simply remain on the shelf. It is also, and perhaps most importantly, about social, economic, institutional/organizational and policy processes, and having an impact on the lives of family farmers” (FAO, 2018d).

In this handbook, **ORGANIC AGRICULTURE** is used to refer to those agroecological farms who have been certified against a public or private organic standard. The certification may be done through a first party (such as in India), a third-party or a Participatory Guarantee System (PGS). The frequency of the use of this term by local innovators themselves depends upon national regulations for organic production,



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their consumer base, and the traditions and history of organic farming in their country of operation. Sometimes, even when some producers are organic-certified, they prefer to use the term “agroecological” to define their practices.

**PARTICIPATORY GUARANTEE SYSTEMS (PGS)** are locally focused quality assurance systems. They certify producers based on active participation of stakeholders and are founded on trust, social networks and knowledge exchange (IFOAM, 2019). In this handbook, alongside certification, we discuss PGS as one of the ways that can guarantee sustainable practices.

The **RIGHT PRICE** is the price that is acceptable/reasonable to all parties involved in the transaction. The right price is fair and sustainable. True Cost accounting can help actors obtain the right price.

A **SUPPLY CHAIN** is a sequence of (decision-making and execution) processes and (material, information and money) flows that aim to meet final customer requirements and that take place within and between different stages along a continuum, from production to final consumption. The supply chain does not only include the producer and its suppliers, but also, depending on the logistic flows, the transporters, warehouses, retailers, and consumers themselves. In a broader sense, supply chains may also include new product development, marketing, operations, distribution, finance and customer service (FAO, 2007).

A **SUSTAINABLE FOOD SYSTEM (SFS)** is a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised (HLPE, 2014).

A **SOLIDARITY ECONOMY** is a movement that aims to transform the current social and economic system into one based on cooperative, solidary, short and direct circuit exchanges that connect individual needs with those of the community. It is based on practices of production, exchange and use of goods and services that meet the economic and social needs of local, territorial and international communities. It promotes economic democracy, social justice, environmental awareness, food sovereignty, gender equity and a pluralist, multicultural approach. The Solidarity Economy is already being manifested through thousands of citizens’ initiatives, solidary practices and collaborative networks across the world.

**TRACEABILITY** is defined as the ability to trace the history, application or location of an item or activity by means of recorded identification. This involves two main aspects: on the one hand, identification of the product by marking and on the other, the recording of product data along the production, processing and distribution chain (FAO, 2016b).

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**TRANSPARENCY** in a food system is defined as the availability of information, especially that of the right price and true cost accounting, in the public domain or upon demand by any stakeholders in a supply chain. In a sustainable food system, information is freely available without biases which may disadvantage producers and consumers.

A **TRANSPARENT INTERMEDIARY** in a sustainable food value chain are individuals or entities who work to provide transparent, affordable, and easily accessible exchanges between the producer and end consumer. All of these actors' functions, especially monetary ones, are available in the public domain; in an ideal case, they are committed to providing equitable access to producers at minimum and to end consumers at best.

**TRUE-COST ACCOUNTING** (also referred to as full-cost accounting, total value or total impact) “brings together non-market goods, such as environmental and social assets into the development equation, in order to allow the analysis of the costs and benefits of business and/or policy decisions. To this end, aspects such as ecosystem services or health (among others), must be given a monetary value. The ultimate purpose is not to monetize nature or people, but rather to translate invisible resources (such as intellectual, human, social and natural assets that are not captured in historic financial accounts) into a common currency for strategic decision-making on impact and dependencies that affect overall value creation” (FAO, 2017).



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PARTNERS

FORMALIZING

FINANCE

GUARANTEES

PACKAGING

LOGISTICS

INPUTS

KNOWLEDGE

PRICE

MARKETS

CONSUMERS

# INTRODUCTION

*“We need to promote a transformative change in the way that we produce and consume food. We need to put forward sustainable food systems that offer healthy and nutritious food, and also preserve the environment.*

*Agroecology can offer several contributions to this process (..) agroecology can improve the resilience of farmers, especially in developing countries where hunger is concentrated. It can contribute to boost local economy. It can safeguard natural resources and biodiversity, as well as promote adaptation to and mitigation of climate change. It can also promote local culture and traditional knowledge. These multiple benefits make agroecology an important path for meeting the 2030 Agenda and addressing challenges that are interlinked.”*

**José Graziano da Silva**, FAO Director General

Opening Statement at the 2<sup>nd</sup> International Symposium for Agroecology.

Rome, Italy 3 April 2018

We live in a critical moment when it is clear that humanity must take immediate steps to ensure that the food systems that feed us today, tomorrow and in the future are sustainable (FAO, 2012). The arrival of the Anthropocene (Crutzen, 2006) and the unprecedented speed of biodiversity loss as reported by the IPBES (Brondizio *et al.*, 2019) has brought major concerns over the ability of planet Earth to support contemporary dietary and lifestyle habits. This is particularly true in debates over food security for growing urban centres in both developing and developed countries (Fressoz and Bonneuil, 2016). Indeed, the EAT-Lancet Commission’s study on healthy diets argues that since “much of the world’s population is inadequately nourished and many environmental systems and processes are pushed beyond safe boundaries by food production, a global transformation of the food system is urgently needed” (Willett *et al.*, 2019). This means that we cannot focus only on the sustainability of food production practices (for instance, agroecological and climate resilient approaches), but we must also address the sustainability of the demand for healthy and diversified food.

But who is responsible for rebalancing the demand and supply of food now and in the future? The creation of the Sustainable Development Goals (SDGs) as a new way for the global community to govern progress in overcoming societal challenges (Kanie and Biermann, 2017) suggests that this rebalancing is complex, as contemporary societal challenges are interdependent. To transition to sustainable food systems, change must be fostered in many critical aspects: how we grow and eat food; how we use and conserve natural resources; how we transform them into food, energy and materials, which are transported, distributed and sometimes wasted; how we recycle them once they are no longer useful in their original form; how we finance our activities; how we organize our work and communities; and how we value the different kinds of knowledge that diverse actors bring to food system activities. The required changes cut across scales of action – from local through territorial to national, regional and international levels of intervention – and everyone has a role to play, they cannot be driven by governments or the private sector alone. A myriad of individual citizens and organized groups of citizens, researchers, and practitioners must also contribute.

This seems like a daunting task, and if delegated only to a few actors who work at the global scale, then it certainly is. However, the global variety of food systems offers opportunities for incremental and small-scale changes that can accumulate and connect to create global shifts. SDG 12 – “Responsible consumption and production” – provides targets for ensuring sustainable consumption and production patterns. Work undertaken within the One Planet Network’s Sustainable Food Systems Programme (UN Environment, 2020), which contributes to achieving SDG 12, offers insights into how small-scale initiatives of dedicated actors can navigate through the many challenges that hinder sustainability in conventional food systems. From these experiences, we can learn how they can affect the changes needed to influence and inspire a broader transition in the global food system.

It is within this context that we discuss innovation in sustainable food systems. To guarantee that future food systems are sustainable, new (or forgotten) ideas, practices and ways of organizing are needed to ensure that all the activities that bring food cultivated from living soil or water organisms to our mouths are environmentally sustainable, economically inclusive and socially just.

Past research and years of practical experience have shown that small-scale and family farmers in developing countries have found innovative solutions to sustainability challenges in their local food systems (FAO, 2014, 2016a, 2018b, 2018c). Over the years, they have used numerous words to describe what they are doing: e.g. agroecological food systems, community supported agriculture, traditional food systems, farmers’ markets, box schemes, short food value chains, food assemblies, alternative agri-food systems, local food systems, nested markets, peasant food webs. Too often, these activities go unnoticed or remain within the scope of local communities. Horizontal sharing of ideas and experiences are needed to scale-up (increase in size) or scale-out (replicate and adapt elsewhere) the impact of these innovations to become more inclusive, so that more

local actors can experiment to find ideas and actions suited to their own communities. This form of *adapted replication* fosters further innovation. This is the purpose of this handbook – to facilitate the sharing of innovative ideas and actions across the world.

## 1. AUDIENCE, AIMS, AND SCOPE

This handbook aims to help those actors – people we call **food system innovators** – who are actively experimenting in (re)valuing agriculture in sustainable food systems, i.e. changing the way we produce, transform, transport, store, sell, and consume our food and agricultural products. In the authors' experiences, these actors can be farmers, researchers, traders, consumer groups, committed individual consumers, NGOs, local-level officials, among many others (FAO, 2016a).

Changes in food systems are complex and there are no ready-made roadmaps. Instead, innovators need to navigate the range of challenges and opportunities that present themselves along the way. As drivers of change, innovators need to evaluate their position in their system as well as their objectives for their future development in order to add value on their own terms. If you are asking yourself some of the following questions, then this handbook should help you to find some answers:

1. Are customers asking about your sustainable practices and you're not sure how to communicate them?
2. Do you want to learn about how to access the necessary inputs to meet your market requirements?
3. Do you have a consumer base and a dedicated group of producers, but you are unable to maintain a steady supply?
4. Have you heard about participatory guarantee systems and want to learn more about them?
5. Do you want to learn how to price your products for different markets?
6. Do you want to know more about transparent intermediaries and how they might be able to support your initiative?
7. Do you want to learn how to organize a farm visit for consumers?
8. Are you trying to work with other initiatives but aren't sure how to collaborate?
9. Do you want to know more about sustainable production in order to better calculate your prices?
10. Have you exhausted your usual means to finance your initiative and are looking for new ideas?

This handbook provides advice in the form of tips, checklists, and matrices that will help local food system innovators to think more strategically about the opportunities that may exist around them. It uses examples written by food systems innovators who have assessed each approach. They aim to inspire the reader to test (or to avoid, or to adapt) a solution to the problem they are facing. Written in easily accessible, informal language, it provides hints on identifying opportunities to innovate while emphasizing low-cost, feasible solutions for developing countries.

## 2. HOW WAS THIS HANDBOOK DEVELOPED?

This handbook is written by innovators in sustainable food systems who share their own experiences.

The collaboration began in 2013 with a call issued by the Food and Agriculture Organization of the United Nations (FAO) and the French National Institute for Agriculture, Food and the Environment (INRAE) to gather innovations and initiatives that connect sustainable, small-scale producers with consumers in local markets. A first researcher-practitioner workshop was held in Bogotá, Colombia in 2015 where an initial set of challenges to sustainable local food systems were elaborated with about 50 participants from 20 countries. A second researcher-practitioner workshop was held in Chiang Mai, Thailand in 2016 where 15 participants from 15 countries brainstormed and elaborated the structure of the handbook's chapters and the initial areas where guidance was needed. In 2017, two rounds of three working groups took place with the aim to write and review the text for each chapter. In November 2017, the third researcher-practitioner workshop was held in New Delhi, India where 25 people from 21 countries finalized the text and developed the learning journeys included in this handbook. In 2018, the handbook was tested with partners: Jaivik Haat in India and the FAO-Global Environment Facility *Resilience Climatique* project in Senegal.

The following initiatives on sustainable food systems have participated in the writing of this handbook: Claudia Helena Prieto Parque Temático en Salud Pública Chaquen (Colombia), CICODEV (Senegal), Earth Net Foundation (Thailand), Ecovida (Brazil), Familia de la Tierra (Colombia), FreshVeggies Ltd. (Uganda), National Agro-Sylvo-Pastoral Development Fund (FNDASP) (Senegal), Fundación Ekorural (Ecuador), IFOAM Organics International (Peru and New Zealand), Jaivik Haat/Gram Disha Trust (India), Keystone Foundation (India), PELUM Kenya (Kenya), Quezon PGS (Philippines), RERA SD (Croatia), Shared Harvest (China), Tea Research Institute of Tanzania (Tanzania), Terrahabilis – Demeter (Peru), the international CSA network URGENCI (France and globally).

The resulting guidance is intended for people working in urban and rural spaces who wish to ensure that food is produced and consumed sustainably.

### 3. HOW TO READ THIS HANDBOOK?

The handbook is set up as a “choose your own adventure” story – there is no “right” way to begin reading it.

- ▶ It can be read starting from any chapter, depending on specific interests. For example, if you are mainly interested in how to support collaboration between farmers and researchers, you can read the chapter about sharing and co-creating knowledge (Chapter 4).
- ▶ It can be used in a training course or in a strategic planning meeting among stakeholders who collaborate on a sustainable food system initiative. In this case, it can be used as a tool to structure a discussion and lead towards the development of an action plan (Section 3).

No matter how you choose to read it, we hope the handbook will lead you on a learning adventure – an innovation journey that begins from your idea to the integration of more sustainability in your food system.

The next chapter provides a guide for designing your learning adventure to help you implement the change you wish to see. Each chapter can be read separately.

We envision the sections of the handbook as a circle made up of interconnections (Figure 1), given the numerous possibilities of links between them.

The last section of each chapter offers the reader possible alternatives for where to go next. This ensures that the handbook offers multiple opportunities for exploration and learning.



Figure 1 Possible learning adventures by first chapter of choice



CONSUMERS  
MARKETS  
PRICE  
KNOWLEDGE  
INPUTS  
LOGISTICS  
PACKAGING  
GUARANTEES  
FINANCE  
FORMALIZING  
PARTNERS



# (RE)VALUING AGRICULTURE FOR SUSTAINABLE FOOD SYSTEMS

*“You need a farmer at least two or three times a day for food, you need a doctor or a lawyer only once a year (if you are really unlucky)”*

A farmer and food activist from Himachal Pradesh, India

## 1. WHY IS THIS IMPORTANT?

- ▶ Agriculture is both a core contributor to climate change and is often the first sector to be affected by it. Transitions in farming, raising livestock, fishing and forestry practices are also effective in reducing the greenhouse gas emissions that are contributing to climate change.
- ▶ In 2016, for the first time in almost 70 years, the rate of global malnutrition began to rise. This is the result of the double threat of undernutrition and obesity that is increasingly found within the same country. The FAO warned a world without hunger and malnutrition by 2030 will probably not be achieved, unless new approaches are implemented (FAO *et al.*, 2017).
- ▶ Agriculture is often “forgotten about” or thought of as “drudge work”. This perspective ignores the beauty of agricultural landscapes, the value that farmers bring to national economies, and the health and diversity of all living beings.
- ▶ Experiences worldwide suggest that agroecological approaches can change the ways that producers, consumers, intermediaries and policy-makers value sustainability and agriculture, though this requires work and time.
- ▶ On a global scale, consumers increasingly recognize the strong linkages between food production methods and food quality (in terms of food safety, nutrition and environmental impacts). Accordingly, they are becoming more demanding in terms of quality and information about agricultural production practices and food origin.
- ▶ Before you begin to make changes in your food system, it is important to envision your objective, what values you want your system to (re)produce, and how you will plan to get there.

For these reasons, and many more, re-valuing agriculture within society (and specifically, through food system changes) is fundamental in order to ensure the sustainability of our human activities.

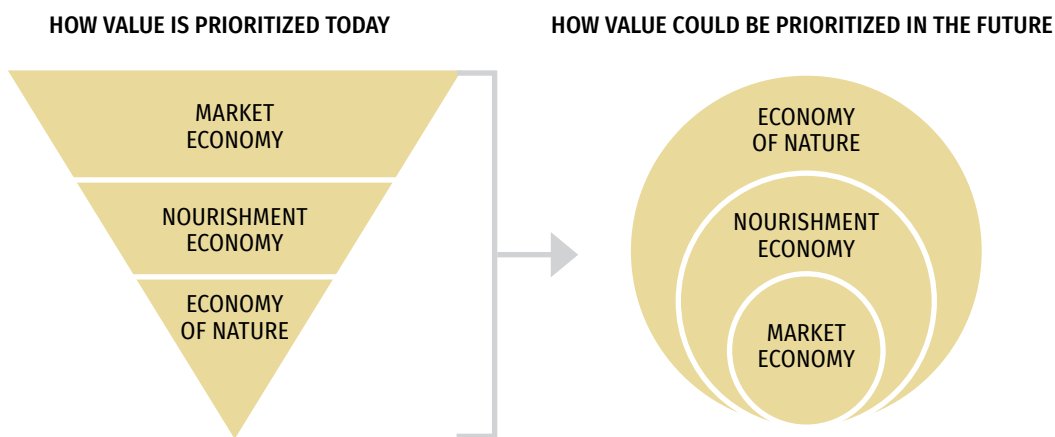


## 2. WHAT DOES “VALUE” MEAN IN THIS HANDBOOK?

Value is the outcome of a process of assessing and negotiating the worth of a good or a service (Vatin, 2013); it is a compromise between quality and price. This term also refers to the way that a product creates value for the actors who are making, using and trading it (FAO, 2018b). Finally, the value of the food grown and eaten is also related to the social and cultural values of the community in question (e.g. environmental conservation, health and wellness, fairness, solidarity, local economy, tradition, human dignity) (Ostrom *et al.*, 2017).

How a food system creates value for people is linked to the way that the system is organized and what values are prioritized. The diverse economies literature (Gibson-Graham, 2008) focuses on the possibilities for performing new economic worlds by organizing enterprise, labour, property, transactions, and finance in alternative ways that can reprioritize societal values and specific types of productive economic activities. Figure 2 is a simple graphic representation of a prioritization of the value of agriculture within current food systems: the value it produces for economic development (i.e. contributing to a market economy), the value it creates for human health and nutrition (i.e. feeding the nourishment economy), and the value it creates for the ecological processes of the planet (i.e. participating in the economy of nature). Indeed, we are continuously expanding the human demands placed on agriculture and its diminishing natural resource base in order to fulfill the needs of expanding nourishment and market economies (FAO, 2012).

Figure 2 (Re)Valuing agriculture



Source: adapted from authors' brainstorming Chiang Mai, 2016 and O.Nieto, Familia de la Tierra, Colombia

In market economies, agriculture's economic (or monetary) value is very important as it provides the means to live healthy and productive lives. However, to ensure these same benefits among future generations, the economic value of agriculture cannot be its sole worth. If social, nutritional and ecological values (i.e. the nourishment economy and the economy of nature) are continuously neglected, unsustainable patterns of production and consumption will be perpetuated, along with the detrimental environmental, health and social consequences already witnessed. Indeed, if this path is continuously taken, the hypothetical triangle presented in Figure 2 will topple.

Systemic changes need to reprioritize how agriculture contributes to these three different economies in order to establish a strong, healthy base made up of an economy of nature, rather than a fragile one focused on resource extraction. Strengthening regenerative forms of agriculture where production practices can both restore ecosystems and bring health to farmers will enrich how we nourish ourselves and ensure that this is economically viable for and inclusive of all actors. Thus, the market economy, with its important focus on wealth generation, needs to be re-embedded within the nourishment economy to provide universal health, and eliminate food and nutrition insecurity. If the SDGs are to be met, these values must be achieved within the current planetary boundaries of the economy of nature (Rockstrom *et al.*, 2009).

**In the context of this handbook, “(re)valuing” the role of agriculture is precisely understood as this reprioritization of values.**



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Agriculture can be revalued in multiple ways, taking into account its economic, cultural, social and environmental contributions:

- ▶ Increased diversification of farming systems (for example, rice/ fish, rice/duck systems or agro-forestry systems) can generate a variety of products and services with high ecological, economic and cultural value.
- ▶ Numerous examples of different agro-ecosystems show that adopting agroecological regenerative practices on-farm can create ecological, health and social values through better water conservation, soil health, increased biodiversity, return of wildlife, and healthy ecological and living environments for the farmer and his/ her family, with safer working conditions.
- ▶ Increased resilience of agroecological production and consumption will bring about economic, social and ecological value, to both producers and consumers during periods of environmental stress such as droughts, floods or other climatic events.
- ▶ Another way of understanding “re-valuing” is through value-addition – using processing technologies to increase shelf-life to create new products and by-products, and to make traditional products more widely available, thus recuperating ecological, nutritional, cultural and economic value. Some examples include fermentation (to convert raw materials into new value-added products, e.g. pickles, kimchi, cheese, wine, naturally cured meats, sourdough breads, soy sauce, tempeh, miso); other forms of value-addition can take place on-farm or in local economies using natural biological technologies, such as converting residues into mushrooms; making microbial inoculants from animal and plant material and local soils; preparing botanical pesticides or making local biopesticides using fungi or bacteria; vermicompost; or biochar.
- ▶ Medicinal and nutritional value can be created through the cultivation and consumption of “indigenous varieties”, and neglected and underutilized species whose specific medicinal, chemical and nutritive properties can either be confirmed from experience or verified through laboratory testing and other methods.
- ▶ Institutional innovations can create value through the diversification of services that farms can provide. For example:
  - **Education:** sustainable farmers can be wonderful teachers who provide examples of new lifestyle and farming modes for other community members, both near and far.
  - **Solidarity:** trust and friendship between consumers and farmers can be created through community-supported agriculture (CSA) and other forms of direct production-consumption linkages.
  - **Communities:** in many developing countries, community-based knowledge exchanges and interpersonal trust are built and revitalized with Participatory Guarantee Systems (PGSs) for organic agriculture, where producers manage the certification process.

(Re)valuing agriculture in sustainable food systems also means reprioritizing economic, social, cultural, nutritional and/or ecological values in the decisions that are made on how, where and when to produce, trade and consume food.

It requires changes in some food system governance institutions and in the infrastructures that bring producers and consumers together. This means that every existing food system actor who has the skills to produce, process, trade and consume must find ways to make their activity more sustainable.

Around the world, there is a great number of people committed to revaluing agriculture and sustainability, but they need practical ideas, tools and skills to make food systems more functional. New actors will have to learn how to produce, trade and consume food in a sustainable manner and, accordingly, new types of knowledge, technologies and interactions will be required.

An “initiative on sustainable local food systems” refers to the group of activities related to production, processing, exchanging, research and education that gather people and organizations working together to make local agri-food production and consumption more sustainable.

In most cases, this refers to the group of actors that is the core facilitator of sustainable practices within their local food system (e.g. Familia de la Tierra, Freshveggies PGS, Bhoomi Ka).

Source: FAO, 2016; 2018.

To rebalance the supply and demand for sustainable food and to ensure that old and new actors are responsible for transitions towards sustainable food systems, more opportunities for these actors to think and work collectively are needed. Relying upon their reprioritized values, actors can envision future sustainable food systems and act locally to make this a reality, which is precisely the purpose of this handbook.

In the next section, we present a brainstorming tool that can be used within an initiative to **envision future scenarios**, clarify **values** and **plan future actions**.

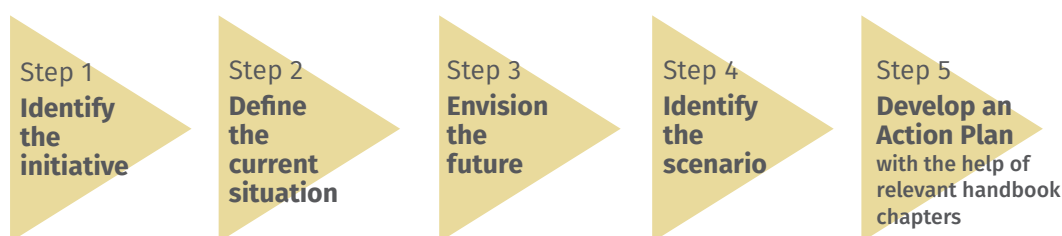


### 3. USING THE HANDBOOK TO EMBARK ON A LEARNING AND ACTION JOURNEY

This handbook can be used as support material for training or collective brainstorming sessions. In this section, we offer facilitators' notes to guide a group through a reading of the handbook. We use an example developed while testing the handbook to illustrate a possible scenario.

*The proposed timeline is one hour and a half to prepare the scenario and then at least two to three hours to work through the handbook and build an action plan. If you are using the handbook in a training session, you will want to take more time (at least two days to cover all of the topics), but if you are using it in a half-day or one-day strategy meeting, you can quickly run-through it in this amount of time.*

#### Easy steps for starting the journey



#### ► Step 1: Identify the initiative

##### Facilitator:

- ▶ You can use this exercise with a group of people who are already working together on a specific food systems project or initiative, to brainstorm collectively about challenges, scenarios and potential solutions.
- ▶ If you are using this exercise during a training session or workshops of people who are working on different initiatives, lead a discussion **[15 minutes]** so that the group collectively identifies one initiative they will be navigating during this exercise.

*[Some leading questions may be: is there a specific problem you are trying to solve at the moment? Have you recently done a strategic planning exercise where you discuss some ideas for future goals? You can select one of the participant's projects as a case study; the participant will provide the information about his/her initiative, while others in the group will help him/her think through questions and solutions].*



If you are in a large group, you could split into different groups of maximum eight to ten participants, who will work on different initiatives.

Designate a rapporteur who will write down the information produced during the exercise and a spokesperson who will present the scenario and the work plan at the end of the workshop.

## ► Step 2: Define the current situation

### Group facilitator:

Lead a discussion (30 minutes) that will highlight the different elements of the initiative's or local food system's current situation that participants want to improve.

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 [The group should provide enough information to write up a description of the current scenario that will be presented in the plenary.]  
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### CURRENT SCENARIO

<b>Name of the initiative</b> <i>Bhoomika Campaign (Situation as of November 2017)</i>	
<b>Country / region</b> <i>India / Delhi</i>	
<b>Scope</b> At what level (local, territorial, national, global) of intervention are you working?	<i>National level</i>
<b>Value(s)</b> What is the value (what vision is your initiative trying to achieve for a Sustainable Food system)?	<ul style="list-style-type: none"> <li>▶ <i>“Clean, green, fair” food.</i></li> <li>▶ <i>Gandhian values.</i></li> <li>▶ <i>Sustainable connections, direct interaction, transparency, interpersonal knowledge.</i></li> <li>▶ <i>Inclusivity = all supply chain actors know each other, including smallholder producers.</i></li> <li>▶ <i>Farmer/producer company.</i></li> </ul>
<b>Timeframe</b> What is the timeframe for action?	<ul style="list-style-type: none"> <li>▶ <i>The initiative is one year-old, currently working on a three-year project plan. The aim is to set up one institutional body supporting a country-wide campaign sensitizing citizens and promoting policy support on clean, green and fair food.</i></li> <li>▶ <i>Timeframe = ten years.</i></li> </ul>



### ▶ Step 3: Envision the future

#### Group facilitator:

Lead a discussion (15 minutes) to identify the scenario’s focal vision, specifying what value(s) will define your initiative’s future status.

*Take your time to define precisely what the focal issue is, as this should help to capture the value you are trying to integrate into the future sustainable food system. Guide the discussion so that some of the core values that the initiative is looking to achieve are clearly stated. Help participants to pose questions to the scenario leader in order to reveal the core values. Consolidate these values into a forward-looking vision that will capture the desired future state of the initiative.*

Write this down as your one-line, “tweetable” vision:

**Bhoomika will be nationally recognized as an institutionalized platform to connect sustainable smallholder producers and consumers.**

140 characters Max

### ▶ Step 4: Identify the scenario

Then, from the current scenario, discuss the possible uncertainties that might occur in the next five to ten years (30 minutes). Highlight the greatest threats and the biggest opportunities that the initiative could face within the proposed timeframe of the action plan. Then, choose which one to work on within the exercise.

*Encourage discussions about uncertainties occurring at the national and international level and within the initiative itself; these should include both positive and negative elements.*

Example:

<p><b>Threat</b>  <i>“The Government’s new regulatory framework excludes participatory guarantee systems as verification/certification of organic food”.</i></p>	<p><b>Opportunity</b>  <i>“A new nation-wide food scandal triggers strong consumer awareness and demands for safe and sustainable food”.</i></p>
--	--

Uncertainties	Greatest threats	Biggest opportunities
<b>Social change</b> What are the possible social changes that can affect your initiative?	<ul style="list-style-type: none"> <li>▶ <i>Smallholders are marginalized without any help.</i></li> <li>▶ <i>There is “no escape from the green revolution”.</i></li> <li>▶ <i>Rural-urban migration is affecting local population dynamics: the right kind of people are not available in rural areas.</i></li> </ul>	There is a huge consumer demand for “sustainable food”; domestic organic markets are growing annually in double-digits.
<b>Economy</b> What changes in trade, markets and the larger economy will influence how you create your markets?	<ul style="list-style-type: none"> <li>▶ <i>There is a lack of transparency.</i></li> <li>▶ <i>The true cost of food is not recognized.</i></li> <li>▶ <i>Livelihoods for small-scale farmers are inadequate.</i></li> <li>▶ <i>Urban markets are dominated by supermarkets, and wet markets are disappearing.</i></li> <li>▶ <i>Rural markets are dependent on government ration system.</i></li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Private markets can be created on private land.</i></li> <li>▶ <i>Internet access is increasing.</i></li> <li>▶ <i>A new financing mechanism could be used to quickly scale-up the initiative.</i></li> </ul>
<b>Knowledge and technology</b> What scientific advances or new technologies will change how you grow, process and market food in your initiative?	<ul style="list-style-type: none"> <li>▶ <i>GMOs;</i></li> <li>▶ <i>massive local agrochemical industry.</i></li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Modern retail;</i></li> <li>▶ <i>social media;</i></li> <li>▶ <i>farmers' markets;</i></li> <li>▶ <i>appropriate handheld tools;</i></li> <li>▶ <i>agroecological production methods (sustainable rice intensification);</i></li> <li>▶ <i>transition from traditional to modern agroecology.</i></li> </ul>
<b>Environment</b> In what type of agroecological environment will you be growing your food?	<ul style="list-style-type: none"> <li>▶ <i>Low biodiversity;</i></li> <li>▶ <i>water depletion;</i></li> <li>▶ <i>low water management capacity;</i></li> <li>▶ <i>persistent organic pollutants.</i></li> </ul>	Dry land farming
<b>Politics</b> What political and security issues will affect your initiative?	<ul style="list-style-type: none"> <li>▶ <i>Current food safety regulations require continuous certification.</i></li> <li>▶ <i>Financing mechanisms for small organic producers (e.g. for inputs) are inconsistent.</i></li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Since 2016, government programmes support sustainable food systems:</i></li> <li>▶ <i>Traditional farming improvement system</i></li> <li>▶ <i>Time-based monetary income to farmers</i></li> </ul>



## ► Step 5: Develop an action plan with the help of relevant handbook chapters

### Facilitator:

The amount of time allocated to this activity depends on how you have organized your workshop.

Ask participants to choose one issue as a scenario which they will address by developing an action plan, either to mitigate the greatest threat or to take advantage of the biggest opportunity identified above. It might be useful to split the group in two and have one subgroup work on the threat(s) and the other work on the opportunity(ies).

Through discussions, participants first identify their scenario's entry point (i.e. priority issue or starting point for the work). Based on this main issue, they should then identify the book chapter that could provide some initial advice.

*Use the chapters of the handbook either as a resource for participants to read and obtain ideas for action or present the content of the selected chapter in a training format (PowerPoint or other) to provide some ideas and examples of concrete actions. The resulting action plan should provide a pathway for addressing various issues covered in the handbook (i.e. start with Chapter 4, then move on to Chapter 8, etc.).*

- *If you are on your own, the plan becomes your own personal table of contents.*
- *If you are in a strategy/brainstorming meeting, this exercise can help the group define the order and the priority for addressing various issues and generating creative solutions.*
- *If you are in a training session, the exercise can help rearrange the order of the sessions in the rest of your workshop, so that it is based on an interactive, problem-based approach which is co-constructed with the participants, rather than following a predefined template/order for determining the topics.*

<b>Greatest threat or biggest opportunity – you decide which will guide your journey.</b> <i>The biggest threat: social – the right kind of people are not available. Those who are dedicated to the initiative are not willing to stay with it for five to ten years.</i>		
Entry point	Reference chapter	Proposed action (based on insights from chapter)
Getting into the organization	Formalizing your collective work (Chapter 10).	<ul style="list-style-type: none"> <li>▶ Create a diagram that can demonstrate to members how the Bhoomika organization is / would be structured.</li> <li>▶ Revise the vision and ensure that everyone shares it.</li> <li>▶ Distribute the roles and responsibilities of all the people committed to the project (including volunteers).</li> <li>▶ Manage the organization's growth—make sure you meet legal requirements first.</li> <li>▶ Hire committed people from within the Bhoomika network.</li> </ul>
Running out of money for growth	Innovative finance (Chapter 9).	<ul style="list-style-type: none"> <li>▶ Determine the financial needs for growth (the business plan).</li> <li>▶ Tip: try participatory budgeting.</li> <li>▶ Develop an investment fund.</li> <li>▶ Try to obtain consumer investment (e.g. learn about CSA models).</li> <li>▶ Help farmers to access group funds that are available.</li> </ul>
Engaging consumers	Attracting consumers and keeping them engaged (Chapter 1).	Try some of the tips proposed on p. 26 with potential consumers.
Partnering for both capacity building for farmers and access to markets	Bringing in partners and advocates (Chapter 11).	Connect with the right set of people for establishing collaborations (try collaborating with Edible Route).
Marketing as a way to raise capital	Knowing your markets (Chapter 2).	<ul style="list-style-type: none"> <li>▶ Merge with a retail outlet.</li> <li>▶ No matter what, make sure that market sales continue.</li> </ul>
Capacity building for farmers	Sharing and co-creating knowledge for sustainable production (Chapter 4).	<ul style="list-style-type: none"> <li>▶ Encourage farmer-to-farmer knowledge sharing within the network.</li> <li>▶ Develop apprenticeships.</li> </ul>
		Also, leave things to time and chance...

A closing plenary session to present the group work will encourage dialogue among participants, to compare plans and decide collectively on actions that can potentially address the different scenarios.

# THE LEARNING ADVENTURE: WHERE TO START, WHERE TO GO NEXT?



**Now you are ready to begin your learning adventure.**

Start with the entry point that you or most of your group's participants are interested in and begin to read and use the content.

Each chapter will guide you through:

- ▶ why the topic is important;
- ▶ what the main ideas are;
- ▶ tips for dealing with specific situations;
- ▶ examples from the authors' own experiences;
- ▶ tips to remember about the chapter's main lessons; and
- ▶ ideas on where to go next to continue your adventure.

**You can't get lost because each adventure will be different!**



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CONSUMERS

MARKETS

PRICE

KNOWLEDGE

INPUTS

LOGISTICS

PACKAGING

GUARANTEES

FINANCE

FORMALIZING

PARTNERS

ATTRACTING CONSUMERS AND  
KEEPING THEM ENGAGED



KNOWING YOUR MARKETS



FINDING THE “RIGHT” PRICE



# ENGAGING CONSUMERS

This group of chapters addresses sustainable consumption.

Consumers are increasingly important in safeguarding sustainable food systems. Not only because consumers are becoming more organized and interested in them – or because farmers in developing countries are usually the first consumers of their own products – but also because food consumption is a daily, universal act.

So, if you are looking for advice on how to find consumers, how to set up markets and how to negotiate a fair price, you should start your adventure here.

CONSUMERS

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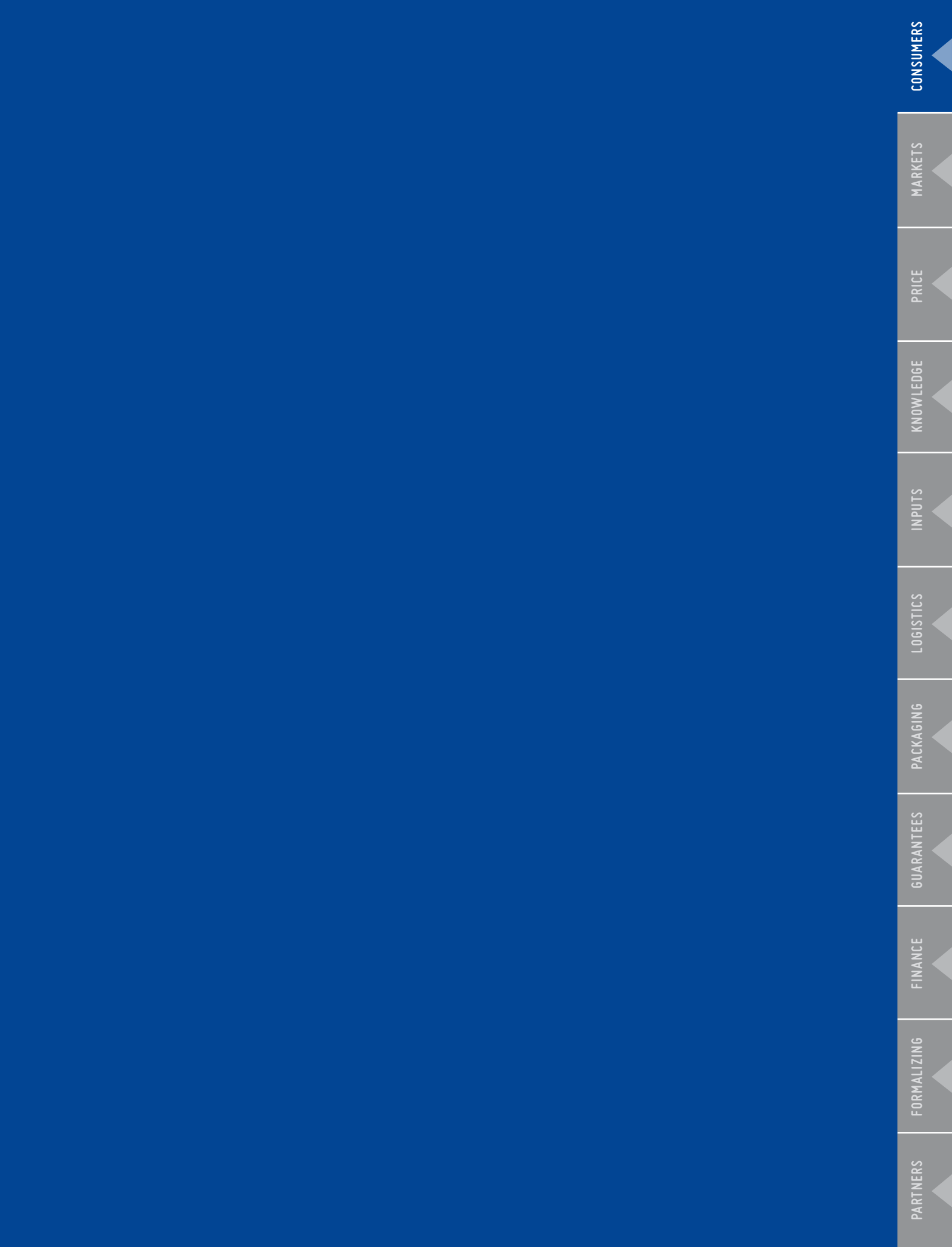




1

# ATTRACTING CONSUMERS AND KEEPING THEM ENGAGED





PARTNERS

FORMALIZING

FINANCE

GUARANTEES

PACKAGING

LOGISTICS

INPUTS

KNOWLEDGE

PRICE

MARKETS

CONSUMERS



## 1. WHY IS THIS IMPORTANT?

In sustainable food systems, both producers and consumers agree to value sustainably produced food. Sometimes, consumers may encourage producers to integrate more sustainability in their practices, while at others, producers may convince consumers to make more sustainable choices. In this context, public organizations can also be consumers by requesting to be supplied with sustainably produced food. Producers and consumers face different challenges:

- ▶ Producers must find and progressively develop viable market outlets; finding customers and keeping them engaged is a key challenge for them.
- ▶ Consumers seek food that they value and that is easily accessible. Their main challenge is to reach a shared understanding with producers or intermediaries regarding the expectations for quality, quantity and price.

In both cases, improvements are needed to re-build relations between producers and customers, raise consumer awareness, (re)learn about food production (including seasonality, varietal differences in taste), and (re)learn about food consumption by cooking and sharing recipes.

Introducing these topics to children and youth can be fun and can ensure that actors in future sustainable food systems are better informed.

**When all actors (including producers, intermediaries and consumers) make efforts to promote sustainable consumption, the whole system becomes more sustainable.**

## 2. WHO ARE THE CONSUMERS OF SUSTAINABLE PRODUCTS?

Everyone can become a consumer of sustainable products, there is no fixed identity that can be easily recognized. However, the interest in sustainable food is often triggered by four main concerns that are independent from one's wealth status (FAO, 2018b):

- ▶ concern for health;
- ▶ concern for the environment;
- ▶ concern for the protection of small-scale family farmers and local food systems; and
- ▶ an interest in reconnecting with how and what food is grown.

Consumers may also buy sustainable products if they are easily accessible, affordable, have the desired taste or quality, or belong to a brand to which they are loyal.

While the potential consumer base is large, creating an actual consumer base requires a lot of work and time. Targeting specific groups known for their existing commitment to health or the environment can prove to be a good time-saving strategy, e.g. university students interested in ecology, vegetarians or vegans, people who frequently cook meals

at home, nursing mothers, yoga practitioners, athletes, university professors, religious groups, schools, hospitals, child care facilities, organic restaurants, or those promoting healthy food and nutrition.

The level of commitment that each consumer is willing to make to purchase sustainable food and other products may change according to time availability and income throughout the year (in addition to the aforementioned factors).

There are notable differences between consumers who share common values with the initiative and are willing to contribute to its development (a minority), and allied or casual consumers who may not share the initiative's values but wish to purchase sustainable products. To set up a viable initiative, you need to identify potential consumers who demonstrate both types of commitment levels.

One of the key aspects to having a dedicated consumer and market base is the availability and continuity of market access. Consider a farmers' market which provides access to seasonal fruits and vegetables; there will be times when certain commodities may not be available throughout the year. In addition, consumers' habits may temporarily vary due to travel and other personal commitments. However, the market platform must be available at a fixed periodicity that consumers can expect and of which they are informed. This is one of the key aspects of trust-building with new and existing consumers over time.

## TIP 1

### Identify potential consumers

- ▶ First, identify core consumers who are available not only to give their money but also their time, knowledge, skills, and political influence. These consumers comprise those individuals available to become members of a sustainable (often local) initiative and help producers with membership recruitment, accounting, distribution, website creation, newsletters, etc. Try starting with friends and members of other groups to which you belong (e.g. religious, cultural, professional, sports).
- ▶ Second, identify allied consumers. These are groups that are already organized, and have a deep understanding of the values but are mainly interested in purchases. Try approaching them at trade fairs, via their websites or directly in their stores (e.g. a chain of health food shops).
- ▶ Finally, identify casual consumers, i.e. individuals who only want to buy your products and are not available or interested in offering their time or sharing values. You can identify and meet these consumers through advertising, participating in fairs, farmers' markets or cultural events.



## 2.1. Are you looking for consumers who buy for themselves and their families, or those who buy in bulk for others?

To define a good marketing strategy, customers can be divided according to purchase quantity. Generally, there are two main consumer categories:

- ▶ individual end-consumers who are buying food for themselves and their families; and
- ▶ bulk consumers who are purchasing for businesses or for large groups of consumers (e.g. restaurants, hotels, buying clubs).

### 2.1.1. Individual consumers

#### Pros

- + Their passion and enthusiasm for sustainable products: they can be your “best sellers” if they promote the benefits of sustainable food to their friends and their families. Moreover, in the case of parents, their attitude towards food can have a positive influence on their children who are potential future consumers.
- + You can learn a lot about your customers, especially by asking them what other needs they have. This can give you a valuable picture of their priorities and will help you to target the right people.
- + Exchanges during business activities can help you to develop closer relationships and loyalty with some customers.

#### Cons

- They tend to be fickle and may have different priorities for when and how they buy from you. They are often looking for a wide range of products and the small quantities they purchase means that you will have to maintain a large stock of products. This, in turn, may be problematic for shelf-life and food waste.

### 2.1.2. Bulk consumers

#### Pros

- + Public institutions, like schools, hospitals, etc. can buy sustainably produced food. These bulk consumers offer the opportunity to reach a wide range of people. Sustainable consumption can support the development of healthier eating patterns among students and people with health problems. Both types of people can be important allies for expanding your initiative’s reach. They can also showcase their sustainable public procurement policy.
- + Bulk customers like catering companies, hotels or restaurants, retailers, and consumer buying clubs appreciate the “added value” that their businesses can attain from sustainable food, such as the demonstration of social and environmental responsibility. This gives you a chance to reach consumers who are not within your immediate facility (like purchasing directly from you at your farm or farmers’ market).

#### Cons

- Especially in the case of public procurement, it can be difficult to meet the legal requirements to participate in this market.
- These consumers will want to order large quantities of your products, so it is important to ensure that you can provide them with the range and quantity that they are looking for.

CASE BOX

1

### Social inclusion of low-income consumers in a CSA

*“Community-supported agriculture has historically been built on two pillars: food sovereignty and a solidarity economy, which allows various forms of support to be set up for those in need. This is a good mechanism for recruiting consumers who want to be active members of an initiative.”*

One key way in which support and social inclusion are used in a CSA is through a sliding scale of payment for shares: for example, pensioners or students may pay less than those who are employed. This tends to vary from place to place. However, one of the common characteristics is the use of discretion and trust:

*“Nobody will question someone’s declaration that they have a financial problem. All will try to support and find solutions.”*

Many CSAs limit the number of “subsidized” shares as part of their business model, while others are open to

discussion. To ensure both social inclusion and the model’s economic viability, many German CSAs have demonstrated innovation in their approach. At the annual producer-consumer meeting, producers state the total income that they need from the CSA group to cover all their costs (including health and retirement pension scheme contributions, investments in new equipment, water, etc.). Each group member discretely writes the monthly quantity they feel able to pay for their share in an envelope. The amounts are then summed up. Should they fail to reach the sum specified by the producer, there is a second round, where those in a position to do so, increase the amount that they are prepared to pay. In many of these groups, experience with this system is limited, so there typically isn’t a second round.

*“This is indeed a case of “to each according to their ability, to each according to their needs”.*

Source: Judith Hitchman, URGENCI



©A. Jimenez



## 3. HOW TO COMMUNICATE WITH YOUR CONSUMERS

There is no “magic bullet” for communicating between producers, intermediaries and consumers. The best approach is to identify some common elements that resonate with your current and potential customers. It is important to adjust your strategies for different audiences: internal communication among members of your initiative does not require the same rhythm and language as external communication.

### 3.1. Internal communication

#### 3.1.1. Simple, user-friendly, resilient

Whether you want to go high-tech or low-tech, there are always many options. Some very effective groups use nothing more than an e-list.

For example, groups organizing regular face-to-face meetings, like a CSA or a regular box scheme that has weekly deliveries, need very little communication. Their deliveries are “universal”, which means they include the same products for everyone. Therefore, there is no need to send in or collect orders, and the delivery remains the key moment for information-sharing. The e-list suffices as a secondary tool to call for meetings and general assemblies, to share updates recipes and the calendar of voluntary duties, as well as to provide directions to the farm for helping days.

Transparency is an effective tool for building trust-based, honest initiatives and for communicating with consumers. Key information such as produce source, price points, and seasonal availability help consumers make informed choices. On the other hand, opaque market access tends to reduce trust with consumers over time.

**Just take a look around you, what are people already using?**

#### CHECKLIST

##### Exploring the best option for internal communication

1. Does the area have a good internet connection?
2. Do your members have cell phones or smartphones?
3. Do you have enough space for face-to-face meetings?
4. What are the social practices of your target groups?
5. Do your members have regular meetings or meet regularly for other reasons (like picking up children at school or places of worship)?



### 3.1.2. Social media: effective for mobilization, limited for commitment

Other initiatives opt for social media rather than e-lists. New pop-up market initiatives are developing around Facebook, WhatsApp or WeChat groups. Local farmers share the content of their next delivery with the group, generally every two weeks. Customers order their share by simply replying to the post.

Social media is flexible, simple to set-up and use, and low-cost (often free!). Also, consumers and producers control when they access the information. Before spending too much time on social media, make sure that your consumers have access to the Internet and smartphones. If they are not using social media already, you are unlikely to reach them this way!

#### CASE BOX

2

#### Social media as a tool for internal communication (Finland)

Over the last 30 years in Finland, direct sales between producers and consumers have significantly decreased. However, the demand for local and organic products has increased during the last few years. Reko responds to this increasing demand. In Swedish, “reko” is an abbreviation for “fair consumption”. The first Reko circles started in 2013 in Jakobstad and Vasa, both situated in the Swedish-speaking area of Western Finland. Facebook is used as the main communication platform, which makes administration very easy. A Reko circle is based on a closed Facebook group, so producers and consumers interested in participating must request group membership. Administrators, often comprising a small group of consumers, accept farmers’ applications on the basis

of Reko principles, and then the business can start.

Deliveries take place weekly or bi-weekly, depending on the group’s size. For every single delivery, farmers share a Facebook announcement, and the consumers place their orders in the form of comments under the announcements. When a Reko circle has started, its oversight requires very little effort. Administrators need only accept applications from new members and set delivery dates. Participation is free since it is a system-based 100 percent on direct selling that incurs no logistical fee. The fact that such an initiative has reached more than 400 000 customers in just a couple of years, in a country of 5.5 million, underlines the potential strong impact of social media.

Source: adapted from <https://urgenci.net/reko-a-winning-concept-in-finland>



## 3.2. External communication: attracting new consumers

### 3.2.1. Watch your mouth!

The language you use should be adapted to the consumers with whom you are communicating. Identical concepts can be appealing or offending to different people. For example, words like “sustainable” will generally appeal more to highly educated consumers, while other consumers may identify more with “organic” or “natural” or “local”. If you present your initiatives in exactly the same terms to consumers from marginalized neighbourhoods or even to middle-class consumers, they may often feel excluded. Many testimonies point in the same direction: if you want to work with consumers from all segments of society, key words must be carefully chosen. The form should be different, but the content should remain the same:

**All consumers seek the story behind the food they eat.**

### 3.2.2. Be aware of your image

In less than a decade, social media have become the preferred form of virtual communication worldwide, reshaping the rules of Internet communication. Using a single image or a video to illustrate or compose a message, using social media has become a “must do”.

CASE BOX

3

#### The importance of visual message on Lavka Lavka’s website (Russia)

Lavka Lavka is a farmers’ cooperative located in Moscow, Russia. It operates an online store, farmers’ market and restaurant to supply its customers with fresh and high-quality food from local farmers. As Lavka Lavka also operates an online store, a website (<http://lavkalavka.com/page/cto-takoe-fermerskiy-kooperativ-lavkalavka>) and a Facebook page (<https://www.facebook.com/lavkalavkarestaurant/>) have been developed to provide information on the



availability of fresh, tasty food and to share farmers’ stories. The Lavka Lavka website is an information gateway used to link the city with the countryside, and consumers with producers.

The cooperative recognizes that food is not simply about eating – it is a multi-sensorial experience involving smell, touch and sight. Given that distance may be a barrier, visual messages are strategically used to communicate the cooperative’s values, to grasp and maintain customers’ attention and, ultimately, to build the first link between consumers and producers. On its website, Lavka Lavka displays many photographs of the different farmers from whom they source the market products, accompanied by short biographies. By clicking on the image, consumers can view the goods available from that specific farmer. Similarly, images of traditional culinary specialties and food products are



shown on the webpage. In the example below, the dish itself and the ingredients used to prepare it are displayed, – a photographic composition that attracts the attention of those who see it and increases their desire to try it.

Source: adapted from  
<http://restoran.lavkalavka.com/en/> and  
<http://lavkalavka.com/page/chto-takoe-fermerskiy-kooperativ-lavkalavka>

### 3.2.3. Build alliances

Given their general accessibility by most local residents, local media outlets are a useful resource. The help of local journalists is crucial in the project’s early stages. A couple of articles (with pictures) will help spread the news about your initiative. Hundreds will know that it has been launched, and that you are inviting people to knock at your door.

Local networks are also important. There are probably pre-existing associative, commercial, technical, educative, and religious networks in the area where you operate. These networks surely have access to like-minded people, who have been looking for the kind of initiative you are creating.

**TIP 2**  
**Try not to exploit the generosity of others**

Be honest and transparent about common interests and values and how you plan to use any information that is shared. Make sure you know the legal requirements for privacy and data protection in your country.



## 4. HOW TO KEEP CUSTOMERS ENGAGED

Consumers all over the world tend to explore new tastes and constantly pursue opportunities for a good deal, a better price, higher quality and reliable suppliers. It is therefore difficult to retain existing customers if there is no deliberate effort to understand and respond to their needs. Through the use of good communication and reciprocity, the selling process is the best opportunity for producers to engage customers and change them from being mere explorers to loyal and committed members of their initiative.

If customers are not satisfied with how you sell your products, they are likely to never do business with you again. Thus, creating a consistent and pleasurable buying experience is an integral part of building trust and loyalty. Reciprocity, as the process through which customers are somehow rewarded for their loyalty, is another important factor in ensuring that your customers keep returning. Creating loyal consumers requires a strategy which doesn't have to be expensive (like giving away too much for free), it just needs to be smart!

### TIP 3

#### Keep consumers engaged

1. Create a close relationship with consumers by organizing events such as communal workdays, social events, and youth activities, directly on the farm or in a common space. These events create a permanent sense of belonging where the space becomes like a “second home” where consumers feel comfortable.
2. Try to teach consumers to produce their own products so that they can learn about production costs. This is an important step in cultivating consumers' understanding of set or proposed prices.
3. Share the products' stories – this helps consumers appreciate and feel good about the quality of the food they bring home.
4. Tell consumers about the production cycle and seasons of key farm products, by providing them with, for example, a schedule of when to expect certain fruits and vegetables.
5. Share recipes and offer classes on canning, storing, cooking and other value-adding practices.
6. Keep track of your consumers' membership status by strategically choosing the time for renewing subscriptions. For example, this can be done during the off-seasons when there is less harvesting to do, or during the peak harvest times when there is greater contact with consumers.
7. Keep your communication with consumers consistently active even during the off-seasons.
8. Receive feedback from your consumers through preference surveys or polls. When you make their favorite products more available, they are likely to return.
9. Strategically introduce new products (based on consumer feedback) – this will help maintain consumers' interest and will likely ensure their membership retention.
10. Finally, perform end-of-the-year surveys and use them to help plan next year's crop production strategies. They will inform producers of the issues related to consumers' preferences, comparative prices for the various products and ideas for possible new crops to grow.

## 4.1. Create a pleasurable buying experience

Creating a pleasurable buying experience is the foundational step to building long-lasting relationships with your customers and keeping them engaged.

### TIP 4

#### Create a pleasurable buying experience

1. Serve all customers very well.
2. Show prices.
3. Show quality.
4. Highlight diversity.
5. Create and innovate.
6. Make your market stand attractive.
7. Promote your product.
8. Apply safe food handling practices.
9. Train yourself.
10. Never make these serious mistakes:
  - a. sell poor quality products;
  - b. set prices above market prices;
  - c. have a messy, dirty stand;
  - d. serve customers poorly;
  - e. stop coming to the market without telling customers and organizers;
  - f. eat your food and serve customers at the same time; and
  - g. sell products without the exact weight.



Source: The 10 Commandments for Selling Better in Farmers Markets from Peru, “Cadenas Agroalimentarias Gastronómicas Inclusivas” APEGA.



### 4.1.1. Loyalty programmes

Loyalty programmes include a variety of initiatives aimed at engaging consumers with vendors. They should rely on reciprocity or small gifts to incentivize existing consumers to keep on returning. These can include formal member-only programmes, or simply the habit of providing a free gift when the consumer purchases a certain amount.

#### TIP 5

#### Surprise is an important component for building loyalty

In addition to scheduled supplies, producers can offer products to their consumers – this helps to reinforce their loyalty at a low-cost.

## 4.2. Follow-up with your customers to understand how to better satisfy them

The frequency of information-sharing is just as important as the right word choice. There are different ways to follow-up with consumers: email exchange, telephone calls, chats during deliveries, flyers and regular meetings. End-of-season and start-of-season polls or focus groups are an efficient way of evaluating customers' overall satisfaction with past products and their requests for the next season. Core customers appreciate any opportunity to influence the initiative: it reinforces their feeling of ownership. When setting up your polls, remember that free software offering well-designed polling tools is now abundant.

Most of the time, consumers choose to hide their discontent, preferring simply to leave and never return. Do your best to avoid this situation! However, if it is the case, try to monitor resignations and understand the reasons behind them, even though it is challenging to receive feedback from those who already left. Ask questions like: “who left?” “when?” “why?”; if you can answer them, you will likely avoid repeating the same mistakes.

## 4.3. Provide support services to incentivize repeat consumers

Customer support services, like cooking demonstrations and farm visits, are very important for maintaining loyalty. An exceptional service experience encourages customers to come back. The quality of service usually matters more than the speed of delivery. Essentially, spending more time with customers fosters more positive outcomes as this tends to build a feeling of importance and attention. It's important that your customer support services are offered through your customers' preferred channel. Though face-to-face relations remain the most common, email or social networks are feasible options.

**TIP 6**  
**Personalized service cultivates an enjoyable customer experience, it creates repeat consumers**

CASE BOX

4

**A cooking demonstration to strengthen links with consumers (Philippines)**

The Quezon PGS, in the Philippines, has hosted two cooking demonstrations to showcase their sustainable food. Located at their regular Friday farmers' market, Quezon's cooking demonstrations have taken place during the yearly August Harvest Festival, which attracts approximately 300-500 visitors. During

these lessons, farmers prepare dishes for consumers using their own products sold at the market. Some examples of prepared meals include salads, rice cakes, and chicken. By targeting the market's regular shoppers, Quezon promotes a strong producer-consumer relation. The cooking demonstration dates were announced during regular market days and advertised on posters distributed through a partnership with the municipal government.

*Source: Carmen Cabling, Quezon PGS*

CASE BOX

5

**Consumers' field visits strengthen relations with producers (Colombia)**

Familia de la Tierra (Fdt), a network of Colombian agroecological producers, use "field visits" to connect consumers and producers. By targeting existing clientele, Fdt allows consumers to learn more about farm products. Groups of 10-15 people, largely made up of students and chefs, are

invited to a farm to observe crop diversity. Hosted by local producers, these visits typically last around two hours and cover a range of topics, from the farm's main production processes to the culinary use of crops. These visits are beneficial for both producers and consumers as they encourage stronger, more meaningful relationships.

*Source: Oscar Nieto, Familia de la Tierra*

**4.4. Sharing and rotating responsibilities**

To keep most consumers engaged, it is useful, whenever possible, to assign them with different responsibilities. Volunteering is not sustainable in the long term if it relies on a handful of committed consumers. Responsibilities should be redistributed regularly.



For example, simple yet time-consuming tasks, like scheduling logistics or checking that everybody signs a distribution list, should rotate among volunteers. The organization of meetings and talks should also be shared among core group members.

## You should avoid “member fatigue” at all costs!

### CASE BOX

6

#### Consumer engagement and time constraints in CSA models (UK)

From the consumer’s point of view, belonging to a CSA varies from one CSA to another, and one country to another. “One size fits all” does not apply in the context of CSAs. What remains constant however, is the shared risk and benefit. If the crop is bountiful, consumers receive a generous amount of vegetables (or whatever else they have signed up for). On the other hand, if an adverse weather event has eradicated a crop, consumers must still pay the producer. In the case of a storm or flood, consumers will also often offer to help the producer clean up.

Many CSA initiatives experience consumer turnover rates of up to 30 percent, especially during the first year. Cost is rarely the reason for dropping out, as most CSA shares are very competitively priced compared with the purchase of organic (or sometimes even conventional) fruit and vegetables in supermarkets. On the contrary, the amount of time needed to

engage in such initiatives seems to be the main reason for consumers dropping out. These are people who generally had not anticipated the time needed to prepare and cook so many different vegetables.

In order to incentivize consumer engagement in the CSA initiative, particularly in terms of time, it is possible for members of some CSA groups to exchange some monthly on-farm work hours for a part of or all of their share. In this way, the amount paid for their food is demonetized, yet still retains its value (see the table below showing an example of this kind of demonetization adopted by a CSA group in the United Kingdom).

Adopting such mechanisms (and there are many others), not only provides an incentive to dedicate time to the CSA initiative, but also considerably strengthens social inclusion for those with low purchasing power and large time availability and encourages them to become members.

Source: Judith Hitchman, URGENCI

Table 1 Example CSA fee structure

Membership type	Minimum work hours	Annual fee
Tier 1	14 hours per month	£0
Tier 2	7 hours per month	£75
Tier 3	4 hours per month	£150
Tier 4	7 hours per year	£250 (currently closed to new members)



## 5. EDUCATE FUTURE CONSUMERS

A food system is not sustainable if it does not provide for future generations. Educating children to eat and enjoy diversified, healthy food is of crucial importance to ensure they have a healthy life, and to guarantee the survival and growth of your sustainable initiative.

CASE BOX

7

### School gardens (France)

School gardens are perhaps the best way to get children and their families to understand and commit to sustainable food. In Jean Guehenno primary school, in Caen, Normandy, as in thousands of schools around the world, school gardens have been used as a multi-faceted educational tool. Even if space is limited in an urban environment, it is always possible to grow something edible. Besides, growing food is an exciting pedagogical activity; it is a way to learn about nature, plants, sun, water, wind, and seeds from an early age.

There are many possible approaches. Children can cook the edible products harvested from the garden and sing songs about vegetables or gardening. They can also learn about the differences between plants and vegetation in different parts of the world. The economics of production and consumption can be calculated, and the basics of sustainability can be taught.

A school garden is more than a single class project. It is a school project:

different teachers may choose different ways to relate to the same garden. It is also a community project: parents and local food activists can be associated with the activities. In the Jean Guehenno school, parents partake in visits to the nearby pedagogical farm, whose growers helped to set up the school garden. These volunteer parents are trained on the spot as workshop facilitators for the day: some parents are responsible for organizing a game on the classification of plant “families”; while others facilitate blind tests about vegetables. The key is to make full use of the farm visit by preparing it in advance and by remembering the material learned there during the following classroom lessons. A school garden is a very efficient way to keep these memories alive, as it requires regular commitment.

Source: Jocelyn Parot, URGENCI

To know more on this topic, visit:  
<https://eathink2015.org/en/download/School-Garden-Guide-WEB.PDF>



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## CASE BOX

08

### School programme to educate future consumers (Kenya)

In Kenya, the Schools and Colleges Permaculture Programme (SCOPE) is a networking organization that currently has 18 member-NGOs and works with schools and communities in 12 counties across the country. Its main objective is to nurture and prepare youth in and out of schools to understand nutritional value, to learn about healthier consumption practices, and to participate in agricultural production.

To do so, the programme adopts the integrated land-use design (ILUD) approach. ILUD is a holistic step-by-step process that involves working with all the schools' actors– students, teachers, parents and local leaders – and uses the entire school ground to design and establish a school garden based on the principles of permaculture.

The approach is based on the following steps:

1. **Situational analysis:** actors observe the existing situation to develop a common understanding of the current problems

and potential resources that they currently have.

2. **Holistic goal formation:** actors define their vision for the school environment.
3. **Integrated design:** actors re-design their land by creating connections between the various elements in their environment.
4. **Plan of action:** actors develop an implementation and monitoring plan for their project.

This process provides children with an opportunity to grow up in environments where they learn about and practice the production, preparation and consumption of healthy foods.

It is important that the garden becomes a living part of the school curriculum and that students become actively engaged in the different activities – from planning, through growing and harvesting, to eating.

Source: Rosinah Mbenya, PELUM

To know more, visit:

[www.fao.org/docrep/009/a0218e/a0218e00.htm](http://www.fao.org/docrep/009/a0218e/a0218e00.htm)

## CASE BOX

09

### Cultivando Agua Boa (Brazil)

Including children in educational, transformative and sustainable actions is fundamental for encouraging present and future consumers of sustainable food. In light of this, the programme “Cultivando Agua Boa” organized by the Itaipu Binacional Foundation develops projects aimed at water and environmental preservation, supporting agroecology and educational interventions in public elementary schools in western Paraná,

Brazil. Children and canteen cooks are both taught about healthy diets – a topic included in the school curriculum. In particular, the school organized a competition among cooks from different schools to create healthy recipes, which were then compiled into a recipe book. These actions involve the entire school community, children's families, agroecological farmers, local and regional media and other social bodies.

Source: Darli Benghi, Ecovida, Brazil

### “Sa Patass” vs. “Boy Pombiter” (Senegal)

Within the SADMAD programme (Sustainable Food System to fight malnutrition in Dakar), a study on the eating habits of households and students in a number of neighbourhoods in Dakar was carried out by CICODEV (a consumer advocacy organization). The study revealed a high consumption of sweet potatoes with nearly 95 percent in the form of fries or unprocessed tubers. However, there was also a considerable prevalence of industrial processed snacks sold to children by vendors outside the schools. The team realized that designing a communication tool around the sweet potato could stimulate children's awareness and increase their consumption of local, nutritious foods.

In Senegal, across all social classes, wrestling is men's, women's and children's favorite national sport. The majority of wrestlers are considered role models

and live in the suburbs of Dakar, near the areas targeted by the SADMAD programme. This offered the perfect opportunity to develop a public service message about the nutritional qualities of the sweet potato compared to the white potato. With wrestlers delivering this message in a cartoon format in Wolof (a widely spoken local language), CICODEV was able to reach both local and national audiences. The video was designed in collaboration with the Laboratoire National d'Analyses et de Contrôle (LANAC) of the Direction du Commerce Intérieur, a graphic designer, Mr. Ousmane Diallo, Mr. Becaye Mbaye, a well-known reporter and emblematic figure in Senegalese wrestler, and Mrs. Khar Mbaye, a great national singer and icon who lent her voice.

Source: Khady Ndoye, CICODEV, Senegal

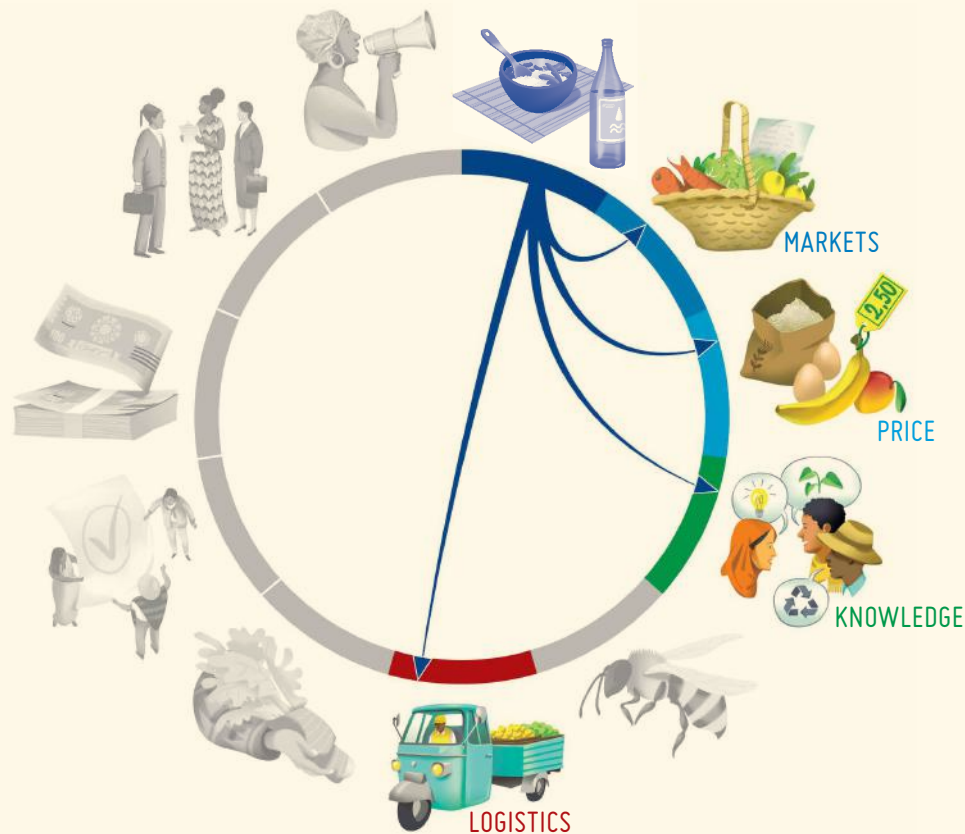
To watch the video in Wolof, visit <https://www.youtube.com/watch?v=BlHnHz0AoPU&t=3s>

## TIP 7

### How to attract customers

- ▶ To avoid disappointment and failure, you have to know what your customers need and expect. Always clearly explain what you can provide and how.
- ▶ Not all farmers are good vendors, but it is important that some farmers go to the market to be able to share the product's story.
- ▶ Specific skills are needed for good communication including, for example, the kind of language you use. Remember that you can't always do everything...someone with good communication skills can help!
- ▶ Raising consumer awareness through communication, education and engagement, is fundamental for widening your customer base.

# THE LEARNING ADVENTURE, WHERE TO NEXT?



- ▶ Do you have a consumer base and a dedicated group of producers, but you are unable to maintain a steady supply? Read through **Chapter 6: Staying connected through logistics.**
- ▶ Do you want to learn about innovative pricing mechanisms like the CSA one discussed in this chapter? You can visit **Chapter 3: Finding the “right” price** to discover more.
- ▶ Are you interested in educational and learning approaches that go beyond school gardens? Jump to **Chapter 4: Sharing and co-creating knowledge for sustainable production.**
- ▶ Do you want to learn more about the market requirements that your consumers request? You can go to **Chapter 2: Knowing your markets.**

**Or maybe another challenge came to mind as you were reading, which chapter can help you solve it?**



# 2

# KNOWING YOUR MARKETS





PARTNERS	FORMALIZING	FINANCE	GUARANTEES	PACKAGING	LOGISTICS	INPUTS	KNOWLEDGE	PRICE	MARKETS	CONSUMERS
----------	-------------	---------	------------	-----------	-----------	--------	-----------	-------	---------	-----------



## 1. WHY IS THIS IMPORTANT?

Markets are both physical and virtual platforms for the exchange of products. They can be face to face exchanges in specific geographic locations or they can be simple verbal, written, or digital agreements. These agreements determine a product's value. Sustainable markets include both these types. They are constructed by actors who agree to equitably exchange products that are produced sustainably, now and in the future.

This chapter offers advice on:

- ▶ how to identify the sustainable markets accessible to you;
- ▶ how to determine which markets are best suited to your products; and
- ▶ how to create new sustainable markets in your communities.

This type of information is often referred to as “market research” or “market analysis”, as it includes information about the products you plan to produce each season, how to grow your business, and how to diversify your products. It is an important step for marketing your products and should help you make better decisions regarding your production, processing, packaging and distribution activities.

The points discussed in this chapter can also be useful for testing new products, expanding your markets or including new actors in your initiative.

## 2. WHAT SHOULD I PRODUCE FOR WHICH MARKET?

Demand does not automatically equate to a market. First, you need to know which markets already exist for your products, and what they offer and demand.

### TIP 8

#### Create a matrix that compares your capacity to market requirements

Following the model presented below, use the columns to list all of the familiar markets, and use the rows to list some key requirements based on your capacity to supply these markets. What you list in both will depend on your production/procurement system.

1. Make a list of your capacity to supply products, re-order the list according to your priorities (e.g. you have your own shipping trucks, you have bulk quantities of black-eyed peas) in order to organize the information you have gathered and make better use of it.
2. Use a \*-ranking system to compare the importance of each capacity for each market. You might need to change the meaning for each row. List what the \* means in a legend.
3. Once you have identified and prioritized some key markets as those where your capacity best meets their demand, ask yourself the following questions:
  - a. Is the demand already well established or is it emerging?
  - b. Is the demand consistent throughout the year or is it active only during specific seasons?
  - c. You may want to highlight these differences with different colours or identify the columns with different symbols.



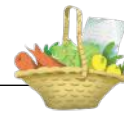
Table 2 Producer capacity and market requirements matrix

	Internal Organization of Supply					Input needs			Institutional frameworks			Other					
	Own capacity	Diverse products	Large quantities	Seasonality	Amount of labour needed to supply	Cost for implementation	Storage	Packaging (size, eg. KG, T)	Transport needed	Distance from farm	Regulations	Certification	Existing and potential competition	Stability of demand	Technical requirements	Transparency	.....
CSA																	
Small shops																	
Farmers’ markets																	
Export																	
Consumer Groups																	
Supermarkets																	
Schools and other canteens (public procurement)																	
Wholesale																	
Restaurants																	
Hotels																	
E-commerce																	
Pick-your-own																	
On-farm stands																	
Agro (eco) Tourism																	
.....																	

Once completed, you should assess all of these needs depending on the chosen markets. Obtain price quotes for the needed services and inputs, including investment costs for productive infrastructure and transport logistics.

Legend: \* = least demand, \*\*\*\*\* = most demand

- ▶ A business plan will be the best tool for implementing the information you have extracted from your matrix.
- ▶ Organize a workshop with your members to fill out the matrix together. Some of your members may already have experience with some markets and it is important to build upon their existing networks.



### 3. HOW CAN YOU FIND THE NECESSARY INFORMATION TO FILL IN THE MATRIX?

To obtain the information, carry out an Internet search, call people you know who run the markets or already sell their products there. Visit the markets and interview the people in charge to ask what their suppliers' requirements are.

#### TIP 9

**Make the collected information easily available and understandable for other members**

1. Create a market report template that you can update regularly with new information as you receive it. Key topics to be included in the report are those that allow the initiative to take action and make better decisions about production and marketing, such as strategic partnerships, strategic markets and the preference order for including new markets. For example, launch your initiative with members, then with the municipality, then local fairs, then begin to export (these can be parallel and/or sequential actions).
2. All of the marketing decisions or choices taken should be based on a market analysis and should include terms taken from the ranking in the capacities table.
3. Depending on your regular means of communication, this information can be made available on a website or in your offices. Reports can be written formally or informally– don't worry if it is a single piece of paper with a list. Start from here and let it grow with time!

You can obtain more specific information by engaging directly with different actors. The following sections describe some successful approaches.



### 3.1. Taste testing

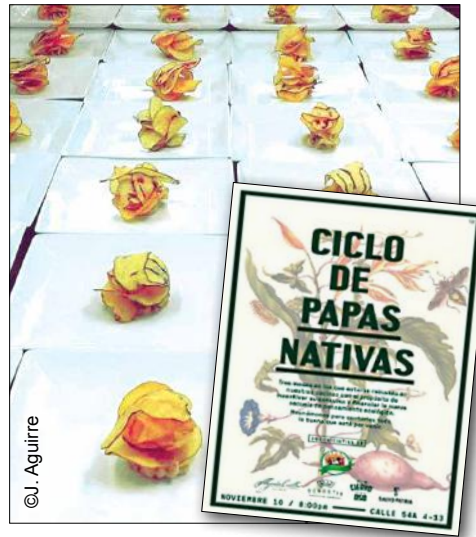
Direct feedback about how your products taste is the best way of knowing if they will sell. Try organizing a taste testing with different groups to determine if different markets need different versions of your product.

CASE BOX

11

#### Taste testing with chefs and restaurants (Colombia)

A way to maintain the engagement of cooks and gastronomy professors is through the tasting of multiple potato varieties. For this, different testing activities were organized with young chefs in training at the Verde Oliva Cooking School, with end-consumers, and with recognized chefs from Bogotá's culinary scene. Familia de la Tierra and five participating restaurants hosted an event where different native potatoes were presented through the culinary creations of five chefs and five concepts. The elaboration of the tasting menu included the participation of more than 20 people and was carried out in the facilities of one of the restaurants. The poster was used to publicize the event and was developed jointly with the restaurant's design team.



This type of event allowed FdT to collect feedback from consumers on the production, preparation and taste preferences for this product.

Source: Oscar Nieto, FdT

### 3.2. Farm and processing facility visits

Depending on who the visit is catered to – consumers or producers – its scope should be adapted accordingly. While the purpose of this type of visit is to share some farming practices, it should mainly be a means for obtaining important information to help you launch new products or services. So, focus on demonstrating some of these new ideas and giving consumers a chance to participate in some activities.



### Farmer visits to processing plants (Colombia)

In the case of the native potato chips produced by Familia de la Tierra, organizing visits to the processing plants are considered very important for the association's producers. When producers learn about the entire product life cycle

from processing to value addition, they can observe how their potatoes are fried and packed. They can understand why they have to select the right potatoes for producing potato chips. The main purpose of these visits is information-sharing in order to improve the entire process and build trust between the different system actors.

*Source: Oscar Nieto, FdT*

## 3.3. Focus groups

Focus groups are an effective means of gathering information from a sample of potential consumers. They can take place for different purposes (both for in-depth research and for product-testing) and at different times throughout the season. For example, if you host a lot of training courses in your community, you should take advantage of these to hold focus groups. Think about the elements you want to know more about, and from whom, and set up the focus group accordingly. When focus groups are organized for research purposes, participants usually are not paid. However, if they are asked specific questions about your products or about an advertising campaign you want to launch, their invaluable opinions should receive some kind of compensation!



### When and how to run a focus group? (Ecuador)

To contribute to the understanding of alternative food networks, and more specifically, to agroecological market channels, EkoRural foundation carried out a case study which focused on the producer-consumer relationships developed through an Ecuadorian community box scheme, organized by the Utopia Foundation. This study aimed to better understand the economic and social relationships between Utopia consumers and the agroecological farmers' association supplying Utopia, Nueva Generación de Tzimbuto. As part of this study, several interviews were carried out to shed light on the different understandings of agroecology as a production system, on the expectations and communication of product quality between producers and consumers, on the factors governing purchasing choices, on the drivers of participation in the initiative, on the encountered difficulties, and on the creation of social bonds among consumers, among producers, and between consumers and producers.

Focus groups and follow-up information sessions were held to cross-check the information obtained in the interviews, to

provide further opportunity for discussion, and to seek further clarifications concerning topics of special interest.

#### Group dynamics during a focus group

To better understand and contextualize the information discussed during a focus group, it is important to pay attention to group dynamics (Morgan, 1997). Ekorural attests to these dynamics in the description of a specific focus group that they held.

*During the discussion, not all participants had an equal say. Some people were speaking more than others and sometimes small disagreements arose about what would be the best approach. The participants also had different styles of contributing. One lady was talking a lot, but also repeating herself at times, or taking time to develop her ideas while talking. Another participant talked less but seemed to think about her words more carefully. The facilitator attempted to include the opinion of all people present by asking the more silent participants specifically for their input, and by moving on to the next discussion question when participants started to repeat points that were already mentioned.*

Source: Ross Mary Borja, Fundación Ekorural

## 3.4. Activities during fairs and expositions

Agroecological fairs provide a space not only for the sale and purchase of agroecological products, but also for cultural events and workshops to take place. Such activities contribute to the strengthening of producer-consumer relations, and to the exchange of information and experiences. Therefore, these events are an opportunity to collect market information.



## CASE BOX

14

### Carcelén's agroecological fair (Ecuador)

Carcelén is a parish and satellite city located in the north of Quito, the capital of Ecuador. Its agroecological fair is a good opportunity to organize activities to raise awareness about more responsible consumer behaviour, and to connect producers with consumers, creating a space for the exchange of information about respective needs and expectations. For example, cooking and make-your-own natural cosmetics workshops have taken place. Farm visits that allow consumers to witness the production of items sold at the fair. There is also an information tent where consumers can ask questions about the products sold, etc. (Kok, 2017). The

fair belongs to a series of neighbourhood activities organized to recover lost traditional values in rural communities that once hosted migrants, mainly the first generation of inhabitants of Carcelén. As described by the President of the participating Producers' Association:

*The fair is very beautiful because there is also a component of consumers who accompany the producers in their fields. Every month, we visit our partners (the producers) and organize large groups of 40. The event is called allin ruway (Kichwa for "doing well"). We have used Kichwa because we want to strengthen connections between consumers and the growers.*

Source: Ross Mary Borja, Fundación Ekorural, Ecuador

## 3.5. New information and communication technologies

Mobile apps, the Internet and social media are increasingly being used to share information between producers and consumers.

## CASE BOX

15

### A market study conducted via email (Colombia)

Agroindustrias Nutriandina S.A.S. is a Colombian company that emerged from the environmental, social and economic needs of the Sumapaz community in Bogotá. It produces and markets organic food implementing sustainable agricultural practices that contribute to environmental protection and the growth of farmers' profitability, while favouring consumers' health. They carried out market research

via an email survey to evaluate the interest and opinion of active and potential customers regarding the opening of a new store, where this store should be located, what products it should carry, and the services it should provide. As part of this study, they also collected their consumers' sociodemographic data including their preferences, consumption habits and the ideal service they expect from an organic food store. This helped the company to determine that their target group of organic consumers are middle-class

inhabitants of Bogotá between 30 and 60 years old. Then, they developed a set of variables to include in a survey instrument, enabling them to collect further data about their consumers' behaviour and preferences:

Table 3 Consumer questionnaire for finding a market site

Identify consumers	Preferences and consumption habits	Do you know the difference between an organic and a traditional food product?	Closed
		Do you eat organic food?	Closed
		Do you believe that consuming organic food benefits your health?	Closed
		What type of organic food do you eat?	Multiple choice
		How often do you eat organic food?	Closed
		Do you know what yacón is and beneficial effects it has for your body?	Closed
		Would you like to be able to find a place in the market where you can consume products derived from yacón?	Closed
		How much money do you spend monthly on organic products?	Closed
		Where do you buy your organic products?	Multiple choice
		In comparison to traditional products, how much more would you be willing to pay for organic food?	Closed
Identify the possible geographic places for setting up a sales point	Key success factors	What is the farther you are willing to travel in order to shop in an organic food shop?	Closed
		Which of these points in the city would you be willing to travel to in order to shop in an organic store?	Closed
		To which of these neighbourhoods of Bogotá would you go in order to be able to buy organic products?	Closed
		On a scale of 1 to 5, with 1 being very bad and 5 being very good, how would you rate the ease of movement (public transport) in these neighbourhoods?	Numeric Scale
		On a scale of 1 to 5, with 1 being very bad and 5 being very good, how would you rate the security in these neighbourhoods?	Numeric Scale
Identify the ideal characteristics that the sales point should have		Do you think that it is important that the products carry an INVIMA registration?	Closed
		Do you think it is important that the products carry an organic certification label?	Closed
		Mark the products that you would like to sell in an organic food store.	Multiple choice
		Select the criteria you consider most important for a good organic food store. You can select more than one.	Multiple choice

Source: Andrea Moya, Agroindustrias Nutriandina SAS, Colombia



## 4. HOW TO SET UP MARKETS THAT DO NOT EXIST YET?

Once you know what market opportunities and which markets exist, you need to start planning and setting-up new ones.

### 4.1. Setting up a farmers' market

#### 4.1.1. How to obtain physical space?

Obtaining the necessary physical space to hold your market can sometimes be challenging. Unless your initiative has its own building, you will have to borrow, rent or purchase a space. Private companies, churches and town halls might lend you their parking lots, gardens, parks or squares, though you will often need to negotiate the particular arrangement and respect their rules for the use of their property.

CASE BOX

16

#### Beijing' farmers' market (BFM), "the mobile market" (China)

When the first market opened in September 2010, it was only attended by those who knew the organizers. It was held at different locations in the city and was known as "the mobile market". Since then, the number of vendors has grown from under 10 to over 40, and the number of Weibo (a social network platform) followers has grown to over 80 000. In 2013, there were more than 200 vendors who applied to join BFM. The market has not yet established written rules for procedures regarding the selection of new vendors, yet the organization tries to maintain a certain diversity and balance of "the global and the local, business and social justice values, modern and traditional vendors".

BFM remains a mobile market and nearly all the information regarding its next location is directly sourced from consumers' suggestions. These locations include, but are not limited to, the BMW 4S Event Centre, Canadian International

School of Beijing, Iron Chef Kitchen, Vintage Arts Square, Beijing New World Women's Shopping Mall, Children's Event Centre at Chongguang Mall, Nali Patio at Sanlitun Bar Street, Red Wall Garden Hotel, Shijia Hutong. Besides finding locations to host the BFM without incurring monetary costs, consumers also share organization-building and information advice. The mobile nature of the market allows it to be held simultaneously at different spots across the city and encourages consumers to remain engaged so that they don't miss where it pops up next.

Source: Xueshi Li, The Chinese University of Hong Kong, Shenzhen and Allison Loconto, INRAE



To know more, visit:  
[www.facebook.com/farmersmarketbj](http://www.facebook.com/farmersmarketbj)



### 4.1.2. Determining who can sell and what can be sold in the market

Before setting up a farmers' market, it is important that the rules of exchange are determined beforehand. Sometimes, there are restrictions on who can sell – are only farmers allowed to sell or can traders sell too? In other cases, the products themselves are restricted – does the market include only certified organic, only seasonal or fresh produce, or processed products too? It is important to be transparent with other actors who want to run the farmers' market and agree upon a market governance 'charter'.

#### CHECKLIST

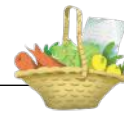
##### Writing a farmers' market charter:

1. Who can sell in the market?
2. Who can purchase in the market?
3. Are there any restrictions on the types of products sold?
4. Are prices fixed (within a range per product) or competitive (based on market rates)?
5. What forms of payment are allowed (cash, credit, government vouchers)?
6. How are payments handled? In a centralized location run by the market or individually with each vendor?
7. How often does the market take place?
8. Where is it held?
9. How are operational fees for running the market (space, electricity, water, advertising, etc.) paid for?
10. Is there space for entertainment and educational events?
11. Who manages it and what will the compensation be?

## 4.2. Setting up a school-feeding programme

School-feeding programmes are abundant and often complex. Parents are increasingly demanding of schools to include healthier and more sustainable meal options. Learn about your area's school food programmes and see if there are parent associations who are interested in setting up a programme to source from sustainable production initiatives.

Visit the website of Un Plus Bio (<http://www.unplusbio.org>), which is the first national association created in France in 2002 that is dedicated to developing organic school feeding programs. They have guides for parents and local elected officials.



## TIP 10

### Make sure that you are aware of national laws and requirements for school feeding

This is important since not all individual schools are always authorized to determine their food sourcing strategies.

## 4.3. Setting up a CSA

Community-supported agriculture (CSA) is a term used to describe a number of direct sales models between producers and consumers. They are emerging around the world and they are relatively easy to set up – they just need dedicated producers and consumers in a dedicated community!

## TIP 11

### How to create a CSA

Regardless of whether the CSA is community- or farmer-initiated, the following steps are recommended.

#### 1. Understanding the concept

It is important to understand what kind of production is expected in a CSA (product diversity, organic or agroecological practices, continuity of production, etc.) and what kind of relationship should be developed within a CSA community. It is worth contacting other CSA initiatives in your region or country to learn more about the matter.

As a consumer, you should be prepared for the commitments, so it is really important to think about whether or not you are able to maintain them. Key commitments include upfront payment, taking part in the distributions, helping with group management and sometimes with farm work.

Shared risks and benefits between farmers and consumers is a key element of a CSA. It means that if there is a bumper harvest, the consumer will have a much larger share and will need to either freeze or preserve it for the “lean” season. On the other hand, in the case of a climate event, their weekly share may be slimmer.

#### 2. Planning

As a producer, it is important to estimate your capacities and possibilities. Can you estimate how many households can be supplied with your products? Can you estimate how much work time is needed? Are you able to do the work alone or should you hire employees?

#### 3. Let's find members

To start a CSA, the key is to find a core group of consumers who could become partners.

- ▶ If you were already selling through other marketing channels, ask your clients if they would be interested in joining your CSA initiative.
- ▶ Ask your friends or neighbours. With them, you won't have to start building trust from zero.

- ▶ Search for existing groups: day cares, environmental organizations, civic groups, workplaces, among others. Additionally, places like alternative schools or yoga centres could be a good place to find people who are interested in healthy food and community-based partnerships.
- ▶ Contact your local CSA network (if there is one) or any NGO already working on this issue.

#### 4. Organize public meetings

With the first allies, be prepared to find new consumers in public meetings. Do not be afraid if you don't have a lot of experience. CSA is a partnership, the (other) consumers should help you find solutions. Possible meeting agenda items may include:

- ▶ What is CSA?
- ▶ Why eat locally grown food? What are the risks of industrial agriculture?
- ▶ Why do small farmers need support?
- ▶ What are the advantages of becoming a CSA member?
- ▶ Assessment of participants' commitment level.
- ▶ Sharing tasks/roles and creating a core group.

It is really valuable if you can invite an experienced CSA farmer to your meeting.

Transparency is crucial: all of your questions or concerns should be discussed because CSA can only be built on strong, honest foundations.

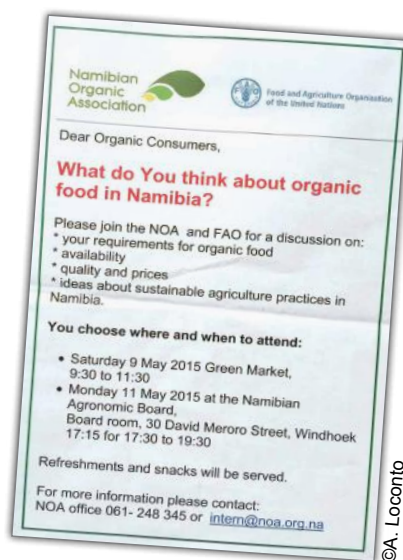
#### 5. Collect commitments and establish the first season's calendar

How long does all this take? The timeline for setting up a CSA might differ according to your initial circumstances and the community around you. However, generally speaking, the more time you devote to plan the initial phase, to speak with people and elaborate the scheme set-up, the more prepared you will be.

*Source: Be Part of CSA! Supporting Booklet for Training on Community Supported Agriculture, 2016.*



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## 4.4. Setting up an Internet platform

Many initiatives are using the Internet to set up an online storefront where individual producers and producer groups can list their products, and consumers can see and order them for delivery or pick-up. These online platforms can be part of an initiative, a new start-up, or part of a global network of e-platforms.

CASE BOX

17

### Go it alone or join a network? (Benin)



**PREMIUM HORTUS** is a technological platform for agroecology in Benin specializing in organic production, e-commerce of

agroecological products, and support for producers. Available as Web and mobile applications, and as an online payment solution, the **PREMIUM HORTUS** site allows you to subscribe, choose the contents of your shopping cart, order, pay online and have fruit, vegetables, cocktails and organic products delivered safely to your home. There are two programmes that help make this service more inclusive of poorer households: **CALIM+** is a food

credit that helps members with payments when they are running low on cash; and **CONSOM'Acteur** is an app that helps consumers to track their eating habits and food needs. **PREMIUM HORTUS** will pick up surplus food and deliver it to those in need.

**PREMIUM HORTUS** guarantees agroecological producers' permanent access to natural seeds, bio-fertilizers and specific biopesticides outside agroecological farm sites in Benin. It strengthens the professionalism and resilience of small producers and family farms through exchanges, capacity building, personalized technical support in green business management and adapted, clean technological solutions.

Source: Johannes Goudjanou, Premium Hortus

To know more, visit: <http://premiumhortus.com>



**Open Food Network (OFN)** is a collaborative global network of local non-profit organizations that have jointly developed Open Source software and made it available to food hubs worldwide through localized online platforms (like OFN UK, OFN Australia, Open Food France, Katuma,

OFN Canada, etc.). This community's mission is to build a shared digital infrastructure (and shared knowledge) to enable short food chain operators to manage their activities, cooperate more efficiently, and build food sovereignty. Just as consumers and producers join together to create food hubs, in OFN, food hubs come together to create digital infrastructure and share its use.

In practice, the platform enables producers to manage their product catalogues and share them with multiple distributors (food hubs). Hubs can connect with one or multiple producers to list their products in a shop and organize collective sales, and get aggregated data to organize logistics and fulfil bulk or individual orders.

In OFN, a hub can take on many different forms, including:

- ▶ a producer selling directly to consumers through an online shop;
- ▶ a CSA or buying group organizing regular collective purchases that are subscription-based, and can handle multiple sub-purchase groups;

- ▶ an entrepreneur sourcing food from local/organic producers and organizing sales to individuals, groups, restaurants, retailers.

The platform also enables networking and marketing features, like the possibility to create a “group” with producers and identify the hubs of a specific ecosystem. These can then be displayed on a map, such as that of the Biodynamic Association in the UK.

Source: Myriam Bouré, Open Food Network

To know more, visit:  
<https://openfoodnetwork.org>

## TIP 12

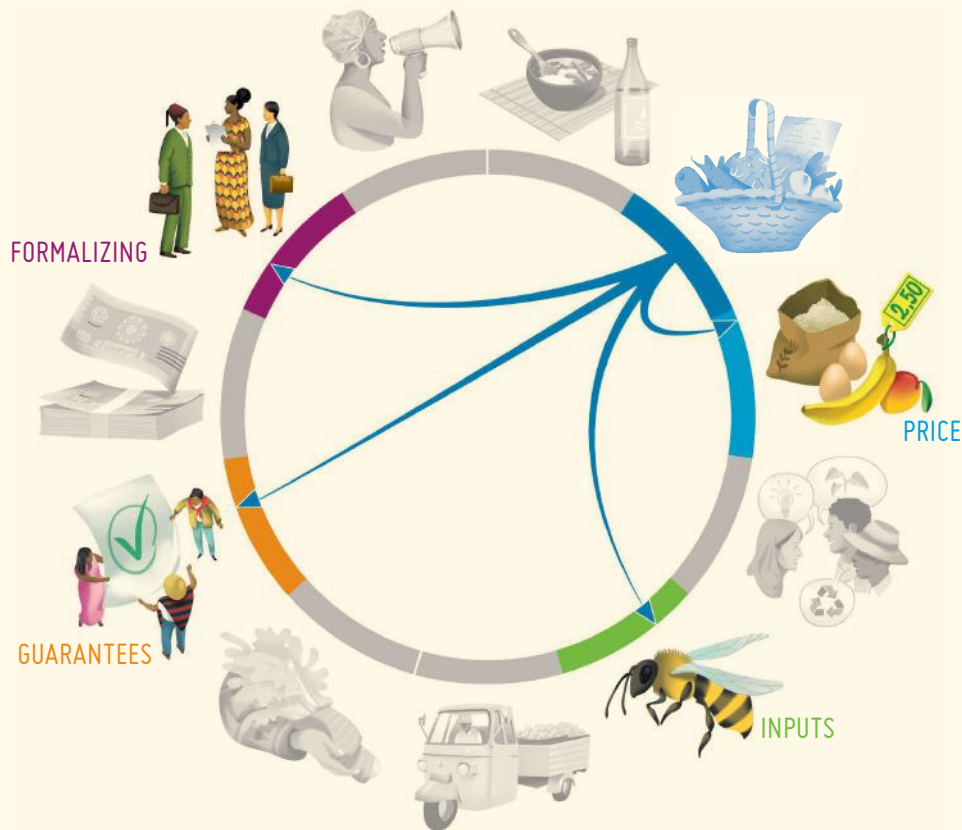
### How to find sustainable markets

- ▶ Make sure you are familiar with the market requirements, and what your capacities are to meet them before you decide where to sell your products.
- ▶ Engage with members of your initiative – consumers, producers, intermediaries and other interested actors as much as possible. They are your best source of information on where to find sustainable markets.
- ▶ If there are no sustainable markets around you, build them!



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# THE LEARNING ADVENTURE, WHERE TO NEXT?



- ▶ Do you want to find out if a CSA is the right option for marketing your products? Visit **Chapter 10: Formalizing your collective work**.
- ▶ Do you want to learn about how to access the necessary inputs to meet your market requirements? Go to **Chapter 5: Managing and accessing sustainable inputs** to find out.
- ▶ Do you need to learn how to price your products for different markets? Visit **Chapter 3: Finding the “right” price**.
- ▶ Are customers asking about your sustainable practices? Maybe you should explain your guarantee system to them... **Chapter 8: Guarantees for sustainability** will guide you.

**Or maybe you have a better idea? Let that guide you to the next chapter.**

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MONGE  
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stronomía  
a identidad  
local



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Ofrece:

- \*Sopaipillas \$200
- \*Empanadas Queso \$350
- \*Empanadas Pino \$350
- \*Empanadas mixtas \$500
- \*Té \$500
- \*Cafe \$600
- \*Mate \$2.000

Colación:

- \*Porotos con rienda
- \*Pan o Sopaipillas
- \*Pebre

# 3

## FINDING THE “RIGHT” PRICE







PARTNERS	FORMALIZING	FINANCE	GUARANTEES	PACKAGING	LOGISTICS	INPUTS	KNOWLEDGE	PRICE	MARKETS	CONSUMERS
----------	-------------	---------	------------	-----------	-----------	--------	-----------	-------	---------	-----------



## 1. WHY IS THIS IMPORTANT?

How to account for the full costs of sustainable production and how to negotiate prices with different types of buyers and consumers? Indeed, market-making is a timeless problem, and adhering to sustainability criteria in all aspects of the food system makes this balance even more difficult to achieve.

True cost accounting, or simply put, farmer knowledge about the real costs of production, aims to rebalance price calculations. However, consumers are also used to purchasing cheap food, which makes it difficult to renegotiate prices.

Therefore, setting the “right” price for food – one that is fair and sustainable for all parties of the transaction – is one of the most relevant economic challenges of our times and is fundamental to ensure the true value of agriculture.

In many countries, the way food prices are established can have significant effects on the livelihoods of small-scale producers, a matter that is typically due to their weak or null participation in price-setting processes. Added to this are the changes in global commodity, input and finance markets that affect national and local markets where producers are price takers rather than price negotiators. Nevertheless, in sustainable food systems, grassroots innovations are being implemented to counter conventional trade and market power, thus providing space for participatory price agreement schemes.

In this chapter, we will discuss such innovations and attempt to showcase small, innovative models that systemically challenge and change the power of the “market prices” mechanism in favour of smallholders.

### 1.1. Cost vs price

There is a distinction between the cost of produce and its price.

The former comprises the cost of the inputs required such as time, labour or money, to produce one output unit. For example, in 2015, the farm gate cost of producing one kilogram of rice in the Southern Indian state of Tamil Nadu, was equivalent to an average of INR 15/kg (TNAU, 2015). However, the price is what the producer gets from the market, e.g. public procurement of rice in Tamil Nadu in 2015 was INR 14.7/kg (Kamaraj, 2015).

For smallholders across the world, it is always challenging to determine the “right” price for their produce – one that simultaneously covers their costs, allows them to make a decent profit and invest in the next cropping season, and is sustainable over time. However, the fixed prices are generally non-representative and mismatched, since they are determined by intermediaries with limited or no producer participation in the negotiation.

Given that producers tend to solely include costs of purchased inputs in their calculations, the cost of production is partially subsidized by them. Labour costs (even if it is their own labour) and market transaction costs (e.g. transportation costs to the

market) are rarely included. Environmental and social externalities are typically not considered, and cost savings that can result from collaboration with other farmers or from practicing an economy of scale are often excluded. Consequently, smallholders face a significant challenge in the price negotiations of their products.

In sustainable food systems, determining prices that cover the costs incurred by producers are integral elements of the system’s social and economic sustainability. Some intermediaries and consumers specifically seek to ensure adequate compensation, while others do not.

## 1.2. Why does price need to be “recalculated”?

Recalculating the price of agricultural products is motivated by the fundamental need to account for hidden costs and benefits like environmental damage, restoration of natural assets, or ecosystem services (economists call these “externalities”), and the main quality attributes that provide producers with a monetary advantage in the market. These can include: the particularities of native seeds, special colours, good taste, healthy, organic, local production, handmade or artisanal practice, etc.

Compared to conventional pricing mechanisms, the main difference lies in the inclusion of hidden costs, and on the assurance that both farmers and consumers benefit from the exchange. Determining fair, sustainable prices is fundamental to how actors revalue agriculture’s role in society and create sustainable food systems.

While there are formulas to help calculate these prices, determining the “right” one is fundamentally a matter of empathetic negotiation and the use of new business models that can better calculate the true costs of production and distribution, and evenly share the benefits among various actors in the food system.

### EXAMPLE FORMULA TO CALCULATE PRICES IN SUSTAINABLE FOOD SYSTEMS





## CASE BOX

18

### True cost accounting

True cost accounting is also referred to as full-cost, total value or total impact. It is a methodology for calculating the value of non-market goods, such as environmental and social assets, in order to analyse the costs and benefits of business and/or policy decisions. Including negative and positive externalities in a cost calculation can help producers better understand how their efforts should be compensated. True cost accounting, when used to re-evaluate

prices, should consider the fees related to participatory price determination and/or the benefits of payments for ecosystem services. Producers' increased knowledge empowers them in price negotiations.

The Natural Capital Protocol created a toolkit that contains tools for recalculating the full cost of production:

<https://naturalcapitalcoalition.org/wp-content/uploads/2017/11/NCP-SEEA-Toolkit-Sep-2017-IDEEA-Group-1.pdf>



## 2. HOW TO MANAGE PARTICIPATORY AND TRANSPARENT PRICING MECHANISMS?

Most methods to create participatory and transparent pricing mechanisms are experimental. They are generated when consumers are aware of the true costs of production and are willing to pay for them, driven by a desire to support the real price of their food, or in response to producers' influence through a price negotiation.

Pricing mechanisms are most effective when actors understand other actors' situations and constraints.

### 2.1. Producers

#### 2.1.1. The challenge

In sustainable food systems, only a few producers manage to participate in pricing mechanisms resulting in reduced margins over the final product sold at market. Farmers' distance to markets and price negotiation mechanisms play a significant role in producers' ability to control prices.

In local markets, producers generally sell with relative ease, owing to the direct interaction with consumers that facilitates communication about price fairness. Distant markets are more challenging, both in terms of access and transparency, given that intermediaries are usually required. Seasonality can also affect prices since it directly impacts market supply. High season means oversupply in the market, so the prices paid by consumers to producers are lower.

One of the most serious challenges that farmers often face is the trade-off between the volume sold and the price received. Based on the shelf-life of the produce, farmers must either wait for market prices to evolve and hold onto their stock (slowly releasing the products) or sell immediately (often their whole production) when prices are low, and demand is high. Many farmers must make this choice because of limited storage space or the need to access immediate cash for day-to-day expenses.

#### 2.1.2. How can producers calculate the various components of a sustainable price?

Price setting in sustainable food systems should consider transparency and fairness. Adding to the production costs, it is a process that should account for various underlying costs such as ecosystem services and other implicit costs. It should include a reasonable profit to match current prices in conventional food systems. Calculating the production and hidden costs are not simple tasks, since they demand a lot of knowledge and skill.



Nevertheless, there exists easy ways to calculate prices for already marketed and new products. The steps that should be taken are:

- 1 **Take note of daily farm chores during the production process to have information about on-farm time, costs, and inputs.**

### TIP 13

#### Take note of daily farm chores

Maintaining on-farm records can be a taxing and time-consuming process, requiring detailed notetaking, line-itemization, and extensive accounting decisions. But it does not have to be! Start simple and describe exactly what you do on the farm. For example:

- ▶ How many seeds did you buy?
- ▶ How much money did you spend?
- ▶ When did you plant these seeds?
- ▶ How much water did you use to irrigate these plants?

At the end of this process, these records will provide the information needed to accurately calculate the costs incurred in crop production, given the recorded expenses related to labour time, and the purchase of farm products and inputs.

CASE BOX

19

#### Teaching children record keeping (Uganda)

FreshVeggie Ltd., a Ugandan PGS, also practices this notation process with children in their Small Enterprise Development project. Primary school aged children are given small projects (often a few ducks) and

are tasked with raising them for eventual sale to finance their schooling. Record keeping is extremely important in their learning and pricing process, and by starting young, they are well prepared for future adult farming realities.

Source: Julie Matovu, FreshVeggie

- 2 **Determine the position of your product in terms of price and quality to better target markets and consumers that are most beneficial.**

**Remember the golden rule: high price–low quality is not sustainable for the consumers, while low price–high quality is not sustainable for the producers... you have to find the sweet spot!**

- 3 Discover and benchmark the price for the product sold by producers who are selling in the same markets you also want to target. This will allow you to have a better understanding of the price to expect.
- 4 If you are introducing a new product, novelty and quality attributes should be included as a price component. To do so, confirm if consumers are willing to pay for the new product, as this will help you determine the price.

#### TIP 14

##### How to understand consumers' willingness to pay

- a. To obtain feedback on quality, and to determine the price that consumers are willing to pay for different products, you can present an array of competitive products (including your own) to a small panel of prospective consumers. Then, they can judge which one would be selected first and provide feedback about their choice. The position, price, or package of your products can then be adjusted accordingly.
- b. In direct markets, allow customers to bargain over the price, on the condition that there is a sufficient margin for manoeuvre. A trend in the prices that consumers offer and agree upon will emerge. For instance, if the consumer offers to purchase a larger quantity of the produce at a lower unit price, this is considered a suitable bargain, given that the producer can liquidate stock.

**If the product is processed, processing costs have to be included.**

#### TIP 15

##### Pricing processed products requires a mixed calculation method

When selling a processed product, you should bear in mind the following elements:

- a. Mix methods that allow you to determine prices based on costs but also the benefits of innovation, market saturation, and consumers' willingness to pay.
- b. This mix should be defined locally in response to the conditions of each market and the experience and intuition of the entrepreneur or group of entrepreneurs leading the process.
- c. Evaluate your processing options and the associated costs. Try to find companies that can both process and explain all the costs associated with processing the product. This can help you to determine a price that is fair, as you don't have to assume all the costs related to buying and maintaining the required equipment.
- d. Test the price of your product in the market in order to determine the adequate one.
- e. Remember that price is a buyer-seller agreement, modifiable at any time, as new information appears. Consequently, price revision should be done periodically, or when a particular event occurs.



- 5 Establish partnerships with researchers and service providers who can help you understand the hidden production costs to include in your price calculation.

## CASE BOX

20

### Including externalities (Colombia)

Familia de la Tierra, in Colombia, experimented with the inclusion of externalities and quality attributes to define the price for native potato varieties. In partnership with the National University of Colombia, a study was conducted to determine CO<sub>2</sub> emissions in the framework of the "Agroindustrial Technology Corridor" project. The study revealed that

the production of 9 000 kg of potatoes generates an emission of roughly 6 000 kg of CO<sub>2</sub>. Familia de la Tierra decided to save part of the income to boost the economy of nature (0.02 USD per 40 g package of potato chips) by planting 30 trees that will capture 6 000 kg of CO<sub>2</sub> (200 kg each) in their maturity. In this way, the initiative offsets an externality and converts it into a positive product attribute.

Source: Oscar Nieto, Familia de la Tierra



**6** Once the price components have been identified and understood, producers can begin to negotiate a fair, sustainable price with other food system actors. Remember that a producer alone may not be able to calculate consumers' willingness to pay for the processing costs or the externalities. Transparent intermediaries or producers' organizations may help producers to carry out these activities, and this needs to be accounted for in the price.

CASE BOX

21

**Three criteria to define when a transaction is acceptable to producers (India)**

Common minimum criteria exist to facilitate transactions between buyers and producers, especially smallholders. These criteria must be considered when determining parameters for any transaction in a sustainable food system. For smallholders in India, and perhaps in the rest of the world, three main criteria apply:

- a. The producer manages to sell all produce grown in a season.
- b. The producer receives the correct price for the produce in a manner that satisfies their input cost plus profit.

- c. The producer receives the money for the transaction in due time.

These criteria are transactional and defined to satisfy the parity of exchange of produce for money or another kind of barter. An ideal scenario requires that the three criteria above be satisfied for the producer to consider the price fair. However, given market conditions, achieving two out of these three elements is often acceptable to most producers. In the case where this does not happen, smallholders' risk increases manifold, as they have little protection to help them absorb market and price shocks. Any negotiating space with price determination and transaction should consider these simple criteria while communicating with smallholders.

*Source: Ashish Gupta, Jaivik Haat*



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- 7 Lastly, once a sustainable price has been negotiated with other actors, producers should try to stabilize their incomes as much as possible to foster confidence with consumers.

### TIP 16

#### Stabilize producers' incomes through diversification

- a. **Permanent innovation:** Developing more farm products allows the producer to maintain and improve profit levels through an approach of local, regional, and in some cases, global markets. This kind of innovation can address questions such as: Who is my target consumer? What characteristics should my product include? What other characteristics could it include? What alternatives can be offered?
- b. **Crop diversification:** Diversifying the food grown on-farm allows the farmer and the network of farmers to retain their income through an average profit. When a product's market price falls, perhaps a different product generates better income value and thus “balances” the benefit.
- c. **Diversification of farm products through packaging:** Developing different innovative and sustainable packaging allows the farms or networks of farms to have a common brand or symbol that is strategically positioned in a market. This unique packaging can yield a better price that often results in a higher income and profit for the producer.
- d. **Diversification of products according to their state of maturation in the vegetative cycle:** The possibilities of commercialization of fresh products are not only limited to their spatial component, i.e. how many plants of which varieties are planted, but also can be distributed over the time and maturation of their growth cycle: germination, growth, flowering, fruiting, and the seed production phase. According to the specific time in the vegetative cycle, it may be possible to harvest a “baby” version, a normal version (commercial standard), edible flowers for gourmet cuisine, and even seeds from the same plant for local and regional distribution.
- e. **Price and market segmentation:** Set different prices for different groups of consumers, i.e. set the price according to the consumer's willingness (and ability) to pay. By following this strategy, you can achieve the best possible price from each niche or market. If your consumers and price lists are well defined, your average income will be more stable in the medium term.

## 2.2. Consumers

### 2.2.1. The challenge

Consumers, as much as producers, are a key component of a sustainable food system. Despite the challenges of setting up new supply systems and high initial prices, consumers in sustainable food systems are often supportive members of the initiatives. Their support partially stems from a fundamental desire to ensure their family's health, and the overall well-being of the environment and the farmers. Today, the main challenge for consumers is the availability of quality products and fair prices. As the costs of

ethically sourced, sustainably produced products are sometimes higher, this financial burden can fall onto consumers’ shoulders.

There are cases, as in price-setting committees, where consumers participate in the price-setting mechanism. However, outside CSA initiatives, consumers are generally excluded from such discussions. The challenge is to create a transparent supply system where producers and consumers both understand the value of the products, and have a right to question it, as sustainable food systems depend on amicable producer-consumer relationships.

### TIP 17

#### Help consumers know the “right” price

- a. Transparency and trust are key. Inform consumers and share your story. At every opportunity, include deliveries and payment transactions, share more about what you do as a producer group, about why you are special, and how you distinguish yourselves from others.
- b. Create activities that promote consumer-producer interaction, such as on-farm weekend visits for consumers. Encourage them to bring their children to involve them in fill-your-basket activities, to meet producers of their favourite products, and to understand how different these products are from conventional ones. Share the story behind the set prices.

### 2.2.2. How can consumers know the “right” price?

Consumers’ knowledge about the fair price and the seasonality of agricultural products is a key aspect in maintaining and building a robust market base. Consumers, just like producers, need to be involved in price setting procedures.

To do so, different strategies can be adopted:

- a. Invite consumers to the farm (or processing plant) to have a direct experience with them. Show them how the product is cultivated, while drawing a connection with the resulting quality of your products.
- b. Create price setting committees to negotiate a fair price with consumers. Having a transparent intermediary between producers and consumers will help you carry out this step.
- c. Ensure that information about the product qualities is communicated in a language that your consumers understand. Some consumers prefer to read labels and recognize brands, others would rather learn about them directly from the producer, from shop owners, or from their friends.
- d. Teach consumers how to produce their own food in order to promote the understanding of production costs.
- e. Encourage consumers to ask for pricing information from the intermediaries and the source of the produce. Equally, encourage intermediaries to be transparent about their costs and risks for making products available on behalf of producers.



## Teach consumers how to produce their own food (Uganda)

Due to the challenges associated with consumers' understanding of production costs, and in order to meet their rising demand for high-quality agricultural products, members of FreshVeggies, together with the support of a private consultant, have designed an at-home gardening package for local consumers. For roughly USD 57, the basic package

includes a variety of vegetable seedlings/ seeds (enough to produce about 100 kg of assorted vegetables in a period of 90 days), and on-site technical advice from the FreshVeggie team. Consumers can purchase this package and have a FreshVeggie expert come to establish a garden in their own backyard. In this way, with some successes and failures in the growing process, consumers can learn and appreciate the actual costs of sustainable food systems.

Source: Julie Matovu, FreshVeggies Ltd.

### Juls consults

#### Agribusiness & Sustainable Community Development

We exist to respond to the needs of our clients with workable solutions to their challenges in farm planning & establishment, organization capacity building in sustainable development for Community Based Organizations, Agricultural training & extension.

We promote sustainable community development through organic agribusiness services. Our services include hands-on training in small-scale crop and animal production of safe food for home consumption and sale; **SAFE FOOD in the garden, SAFE FOOD on the plate.**

Our basic home gardening package:

- 160 – 220 Assorted Vegetable seedlings & direct sowing seeds with your family nutrient requirements at heart;
- 30 spinach seedlings
- 30 Broccoli seedlings
- 30 green/white/red cabbage seedlings
- 10 tomato seedlings
- 30 onion seedlings [spring/leeks/Red creole]
- 30 salad lettuce
- 30 carrots
- 30 Beetroot
- 5g of garden mix herbs
- 10g of ddodo/jjobyo/Nakati seed for controlled broadcast
- 2 practical home visits; one pre-establishment planning visit & one planting lay-out activity;
- One seed-tray
- One booklet on organic vegetable management
- Free in-season advisory on established crops by correspondence
- Package cost: UGX200,000= (Two hundred thousand shillings only) including a modest professional fees and transport costs for the two visits. An initial deposit of 50% is required on confirmation of booking three weeks prior the garden establishment.

<sup>1</sup> Expected average harvest is 90 – 100kgs of safe fresh vegetable produce in your backyard in a season.



Juls consults is associated with the Freshveggies PGS<sup>2</sup>.

#### CUSTOMISED EXTRAS:

We can work out customized extras to match your specific needs. These may include:

- Potting bags
- Certified balanced organic fertilizers
- Delivery of ready potted bags with sterilized and or treated soil & organic fertilizer [inputs, labor, transport]
- Supplementary organic inputs
- Drip irrigation kit

#### Our Contacts:

Ggombe B, Bukasa Parish, Wakiso District.  
P.O.BOX 11133, Kampala.  
Email: [matovujuls@gmail.com](mailto:matovujuls@gmail.com)  
Call Julie on 0701636688/0772636688  
Or George 07560473377

<sup>2</sup> Freshveggies PGS is a loose network of organic smallholder farmers mostly women in the peri-urban districts surrounding Kampala, Uganda. The initiative aims at ensuring sustainable agricultural production among smallholder farmers for increased household incomes as well as availing safe and healthy food to local consumers of organic products. It is local market innovation, brings farmers together to generate a unified pool of resources for knowledge exchange and improved skills in organic agriculture as a means of linking them to markets for sustainable products. PGS – Participatory Guarantee Systems are locally adapted systems focused on local quality assurance mechanisms, which certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange.

- f. Keep consumers informed about prices and price changes.

CASE BOX

23

### Market surveys as a means to share information (Uganda)

At Freshveggies, members run mini-market surveys with customers. Through simple, easy-to-fill-in forms sent via email or included in the delivery basket at the beginning of each year, Freshveggies PGS

shares their prices or any price changes, introduces new products, and gives customers the opportunity to request new products. In this way, customers learn about product prices in a timely, personal manner.

*Source: Julie, Matovu, FreshVeggies Ltd.*

## 2.3. Transparent intermediaries

### 2.3.1. The challenge

While many sustainable food systems try to eliminate intermediaries through direct sales and short supply chains, intermediaries often return because their skills are needed. They help to facilitate exchanges and to invest in storage and transportation that producers and consumers cannot manage or afford.

The biggest challenge for intermediaries is satisfying the needs of the markets for both the producer and the consumer even if or when these are unmatched. Transparent intermediaries are usually conscious of relevant issues such as carbon footprint, loss of indigenous biodiversity due to the preference for hybrid crop varieties, and other sustainability-related issues. Thus, a sustainable food system requires functional, transparent intermediaries who help farmers channel their products to markets, while considering consumers' sustainability-related concerns and their desire to use short supply chains. According to the kinds of services offered to both producers and consumers, there exist different types of transparent intermediaries. In addition to logistics and aggregation functions, intermediaries can provide a broad set of services to promote knowledge exchange and collective action in sustainable food systems.



## Three different types of transparent intermediaries (South Korea and India)

Below, three models of transparent intermediation based on the size of their consumer base and the services offered, are highlighted.

### 1. Large-sized model:

#### Hansalim Cooperative, South Korea

Hansalim Cooperative creates transparent access between producers and consumers by offering organizational equity to both parties so that they are regularly involved in many of the cooperative's activities, including price determination. Hansalim's motto is "Hansalim goes the producer's way" and provides access to price setting, so the producer can continue to safely and comfortably maintain production. Prior to the upcoming season, the cooperative's employees, consumers, and producers hold annual meetings to determine prices. Given that conventional imported goods in South Korea are susceptible to market shocks, the



cooperative holds revolving buffer funds for production and price stabilizing funds, creating a "cushion" for producers in case of severe price volatilities. In general, prices remain relatively stable within the Hansalim framework. Roughly 75 percent of the final market price is paid to the producers. Hansalim's overall market sales turnover, as reported in 2016, was USD 362 million.

Source: Hansalim Annual report 2016

### 2. Medium-sized model:

#### Dharani FaM Cooperative, India

The cooperative assists organic PGS farmers in aggregating and marketing their produce under the brand "Timbaktu Organic". The cooperative provides its members with correct weighing practices for their produce and a 25-30 percent price premium over existing market prices. In addition, there is a 3-7 percent additional annual retainer incentive for the producers. Together with the farmers, these prices are typically fixed before the season starts. Despite offering such margins, the overall price of sustainable food produce is about 20 percent less



than large-branded market produce. At all times, the farmers have transparent access to procurement, pricing, and marketing mechanisms. In 2016, Timbaktu Collective's overall market sales turnover was reported as USD 310 000.

Source: Timbaktu Collective annual report 2016

**3. Small-sized model:  
Jaivik Haat, India**

Jaivik Haat is a private social enterprise which runs an organic/natural food retail supply system in New Delhi, India. It provides retail opportunities to small and marginal farmers who abide by agroecological practice, and especially to PGS-certified farmers, as well as granting them transparent market access. The operational margins are about 35 percent of the final market price. Price setting occurs in two ways: in the first, producers (or their groups) set the price considering their input cost, and Jaivik Haat then adds its price mark-ups for managing the supply chain. In the second, if farmers are unable to set prices due to low price confidence, then Jaivik Haat pre-purchases their products and attempts to sell them at the best possible market price in spot markets. Following sales, 60-70 percent of the final average prices are returned to producers. In both these models, consumers play an indirect role in price determination



through a feedback process. In the first case, if the producer sets the prices too high, sale volumes are not met. So, the produce price can be lowered to ensure that the necessary volumes are sold. Thus, the open market helps determine the price through learning-by-doing. In the second case, Jaivik Haat attempts to negotiate the best possible market price depending on opportunity costs. Thus, the market and consumers help negotiate a real cost based on real transactions, rather than on pre-determined estimates set by third parties.

Source: Ashish Gupta, Jaivik Haat





### 2.3.2. How can transparent intermediaries facilitate negotiation between other actors of the system?

As transparent intermediaries play a crucial role in effectively connecting producers and consumers, they need to set prices that satisfy all members of the value chain.

As for producers, transparent intermediaries must first understand producers' cost structure and the prices set by competitors in their market area (or even projected prices in future markets).

Then, in order to set sustainable prices, transparent intermediaries can facilitate a producer-consumer negotiation process (or with other actors in the food system). There are a variety of ways through which this process can be achieved:

#### 1 Price setting committees

CASE BOX

25

#### Price setting committees and pricing mechanisms in CSA

Fair and equitable pricing is central to a CSA venture. Pricing models can vary based on group membership, geography, or philosophical foundation. Three strategic examples from diverse URGENCI members demonstrate the possibilities:

- a. **Real costs of farming pricing:** Evaluate the entire CSA farm budget for the production season. Include all costs, such as those related to production (i.e. seeds, tools, and inputs), labour, machinery depreciation, among others. Divide the total cost figure by the number of CSA members. For example, if the entire cost of production for the season is USD 1 000, and you have 20 members, each member should pay USD 50 per share. In this way, you can price each member share.
- b. **Deliberate contributions:** In this pricing model, pricing is the direct responsibility of the members as a

group. The farmer evaluates the entire budget for the CSA farm and presents this figure to the members. Members then secretly write down how much they are individually able to pay for the season. The farmer adds up these amounts, and if the sum meets the budget, prices are set. If the total amount does not match the budgetary needs, members bid their prices again, until the budget is met.

- c. **Market value pricing:** Referring to farmers' market prices is perhaps the most common method. Determine your target price, i.e. the price people are willing to pay for veggie box schemes. Then, establish the share based on the price of individual items, in the local farmers' markets or in similar direct selling or short supply chains, until you reach the target price. For example, people are ready to pay up to USD 15 for a weekly delivery; you can then compose the share based on market prices.

*Source: 2016 Be Part of CSA Booklet*



2 Participatory market research

CASE BOX

26

**Participatory market research (PMR) (Uganda)**

Working within their MAIL (Market Access Improved Livelihoods) Programme, Uganda-based FreshVeggies Ltd. directly connects producers and consumers in their targeted PMR programming, which leads to concrete outcomes in price modelling. FreshVeggies members interview potential consumers at local markets, their homes, and their workplaces. In this process, information is gathered about which products are most interesting to them, and future customers are solicited for these products. Depending on the number of FreshVeggies participants, and the distances needed to travel to talk with potential consumers, the PMR can take anywhere between two and five days.

► **Day one:** Participants are introduced to the PMR process, questions to include in the PMR are finalized, and questions about the process are answered.

► **Day two and three:** The PMR is executed onsite at local markets/homesteads/workplaces, and information is gathered and noted.

► **Day four and five:** The collected information from the PMR is compiled and synthesized, a feedback exercise is organized with prospective clients, prices are discussed, and purchasing agreements are made.

In this way, producers can build direct relationships with potential consumers, and by doing so, they can discuss costs associated with the production of high-quality agricultural products. Consumers gain insights into the labour-intensive farming process and as such, are often more committed to financially supporting these producers.

Source: Julie Matovu, FreshVeggies Ltd., Uganda

Figure 3 An example of a template of the results of a PGS Participatory Market Research Findings

Summary of the information generated from the PGS market survey in the PMR activity.

Product: e.g. organic tomatoes

Homestead location/workplace/Market outlet	Quality/Type/Size required	Quantity required	Frequency of delivery and special packaging required	Other known sources of required product	Price/Price range	Payment terms	Respondant accepts sales from PGS (Yes/No)



CASE BOX

27

### Price sharing ratio in the tea sector (Tanzania)

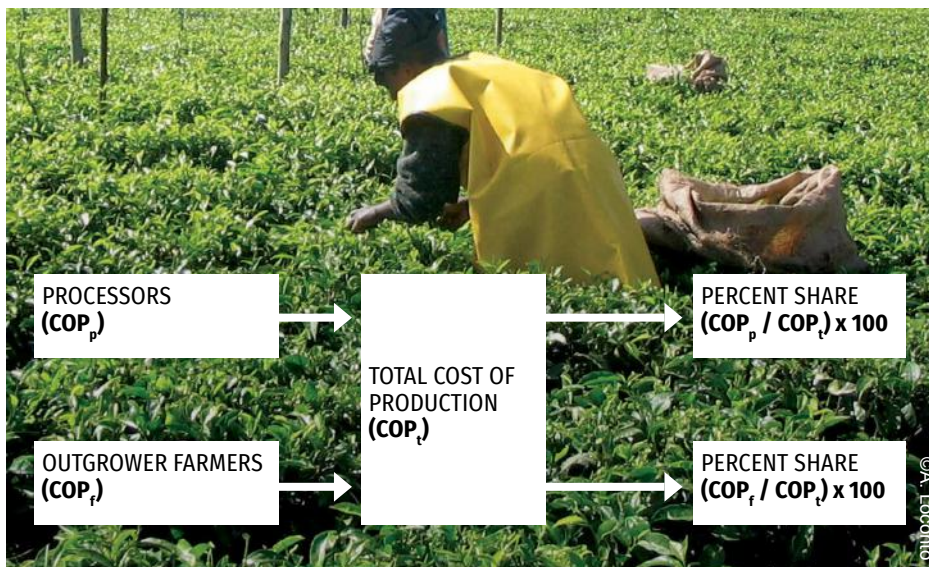
In Tanzania, tea is produced by both big estates and small farmers. The estate sector also owns the majority of the processing factories, whereas smallholders are considered out-growers (contract farmers) who only own their small, family-managed gardens. Following a long battle regarding a fair pricing structure for out-growers, a decision was taken to use the cost of production along the supply chain as sharing proportions (based on the economic theory of marginal productivity). It analyses profit by maximizing the quantity of inputs (i.e. services as a factor of production) purchased by a firm in the production of outputs.

The cost of production model is considered a fair and viable approach to use in the Tanzanian tea sector. Essentially, all the relevant costs of production are used to determine the sharing ratio of the

market price of tea sold. The process is summarized on the figure below which outlines the simple formula that combines the cost of production of smallholders and factories to obtain the cost for farming, processing and selling tea. This approach can be examined from both sides, input side (GL) or output side (MT). However, to create a common base for calculating price, GL measures are used.

On the basis of this formula's outcome, agreement is reached on the out-growers' and processors' respective shares from the final prices attained at the auction. These prices include any profit made, to be shared between the producers and processors. Since the final tea prices are highly determined by quality attributes, this formula and approach binds all actors within the value chain to ensure that the final product sent to auction adheres to the highest quality standard and accordingly, the best price.

Source: Emmanuel Simbua, TRIT





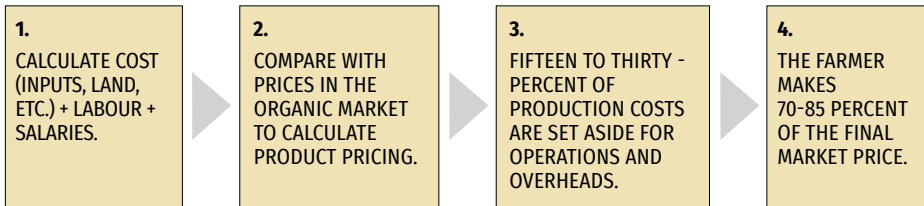
### 2.3.3. How can transparent intermediaries set a fair margin for their activities?

The role of transparent intermediaries is to establish market prices that take both producers' and consumers' needs into account. By and large, the reasonable remuneration for a transparent intermediary is about 30 percent of the selling price, thus allowing the transparent intermediary to financially provide for his/her basic functions, i.e. logistics and aggregation, and to remunerate his/her work, while about 70 percent of the selling price is given to the producer. Thus, farmers are ensured a fair share of market prices and consumers are provided with transparent information about the running costs of the supply chain.

CASE BOX

28

#### Shared Harvest Model to calculate the right price (China)



## 2.4. Policy-makers

Determining who should absorb the true cost of sustainable food production is complicated. Some suggest that governments and policy-makers should pay for the provided ecosystem services rather than having consumers pay a higher price for final products. Apart from these types of payments, policy-makers can influence price-setting by adopting two different strategies:



- 1 Policy makers can play the role of a transparent intermediary and facilitate the information flow over prices for both producers and consumers. In some cases, where negotiation among food system actors is particularly challenging or when sustainable producers are especially vulnerable, policy-makers can also fix minimum prices.

## CASE BOX

29

### The government as a transparent intermediary (India)

In India, the procurement of conventional market produce from open markets is an example of a "transparent intermediary" function. Prices for a number of commodities are fixed in advance as a "Minimum Support Price (MSP)" by a central government body, the Commission for Agriculture Cost and Prices (CACP; <http://cacp.dacnet.nic.in/>). The CACP has a sound model to calculate costs accrued to farmers, covering about 27 crops including paddy,

wheat, legumes and commercial crops like jute and sugarcane. The government's aim is to act as a support tool for farmers to ensure price control, functioning as a direct purchaser of produce from the farmers. In case of open-market pricing volatility, the government also issues periodic bonuses in price over and above the calculated prices.

Basic MSP calculation relies on various factors including farmers' input costs, price parity, historical prices, demand-supply, among others. Thus, the CACP calculation methodology is comprised of various costs:

**Cost A1 =** Cost of Cultivation, including input, labour, depreciation, taxes, interest, misc.

**Cost A2 =** A1 + Rent paid for land lease

**Cost B1 =** A2 + Interest on value of fixed capital assets (excluding land)

**Cost B2 =** B1 + rental value of owned land and rent paid for leased in land

**Cost C1 =** B1 + imputed value of family labour

**Cost C2 =** B2 + imputed value of family labour

**Cost C2\* =** Cost C2+ Additional value of labour based on market rates

**Final Cost C3 =** Cost C2\* + 10 percent of C2\* (towards managerial costs by farmer)

While the concept of this scheme is widely appreciated in India, realities for implementing it depend on market factors, on government deficits and on the political climate. Based on these factors, policy-makers choose one of the formulas above.

Using this method to calculate the price has a serious impact on determining open market prices. However, it ignores the environmental externalities intrinsic to sustainable agriculture. There may be a case for including these in the future.

Source: Ashish Gupta, Jaivik Haat, India

- 2 Policy-makers can create a specific market for sustainable products through public procurement thus offering premium prices to sustainable producers and a secure market outlet.

CASE BOX

30

### Institutional Procurement Programmes (IPPs) and pricing influence (Brazil)

**Programa de Aquisição de Alimentos/ Food Procurement Programme [PAA] and Programa Nacional de Alimentação Escolar/ National School Feeding Programme [PNAE]**

The scope of public institutional procurement programmes could be wide given that food is typically supplied to public schools, food relief agencies, prisons, and hospitals. In 2003, Brazil implemented one of the first national Institutional Food Procurement Programmes (IFPP) through a direct relationship between structured demand for smallholder farmers and a national food security strategy. While most government pricing schemes require at least three bids to be submitted for review, The Government of Brazil decided to forgo this process by establishing the requirement that “food had to be produced by family farmers; prices should not be higher than those of reference prices in regional markets; and a procurement financial limit established per year for each family farming unit should be respected.” (Joppert Swensson, 2015, p.16)

PAAMG (The Food Purchase Programme Management Group) is responsible for

establishing the criteria for defining the PAA reference price, which currently are the following:

- a. The reference price for all products is defined by the average of three price surveys conducted in local/regional wholesale markets within the past 12 months.
- b. Other agencies can use the reference prices defined by the Companhia Nacional de Abastecimento (CONAB), the National Supply Company to streamline the process.
- c. The reference price for organic products can be increased by up to 30 percent relative to the reference price for conventional products.
- d. The reference price remains valid for 12 months.

In this way, the government is responsible for establishing a fair reference price for all products. In turn, farmers are able to set their prices in relation to this external measure in order to be eligible for institutional procurement.

*Source:* Joppert Swensson, L. (2015) Institutional Procurement of Food from Smallholder Farmers – The Case of Brazil. Rome: FAO. <http://www.fao.org/3/a-bc569e.pdf>



**3** Despite the general agreement that the sustainability of food systems needs to be reinforced and supported, policy-makers still mostly support conventional agriculture as part of legacy practices, namely input subsidies and modernization projects. These types of incentives and subsidies have perverse effects on food market prices, which makes sustainable food appear significantly more expensive than it really is. There is much that policy-makers can do to remedy this situation, starting with a better understanding of the true costs of food.

(<http://www.fao.org/nr/sustainability/full-cost-accounting/en>)

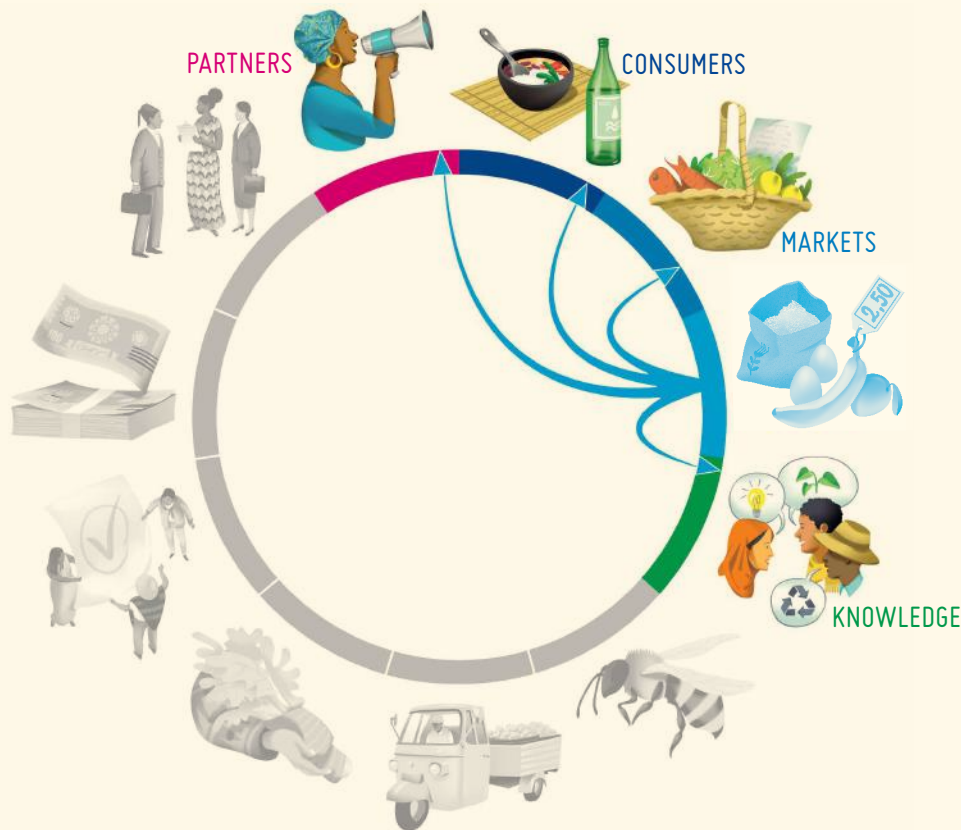
### TIP 18

#### How to find a sustainable price

- ▶ No single actor has the necessary information to set a fair and sustainable price. Transparency can help everyone be more knowledgeable.
- ▶ Empathy in negotiations is key. Imagining oneself in another's shoes can help to determine prices.
- ▶ Price committees and collective negotiation, with or without the help of a transparent intermediary, can result in fairer prices.
- ▶ Sustainable prices cover the full costs of production, the volumes produced, and the desired qualities. Further, they can be paid in a timely manner and can be sustained over time.



# THE LEARNING ADVENTURE, WHERE TO NEXT?



- ▶ Did you like learning about some of the innovative partnerships created to determine prices? **Chapter 11: Bringing in partners and advocates** offers more insight about this topic.
- ▶ To know more about how to organize a consumers' farm visit, see **Chapter 2: Knowing your markets.**
- ▶ Do you want to establish a price-setting committee but don't know where to find consumers? Try reading **Chapter 1: Attracting consumers and keeping them engaged.**
- ▶ Do you want to know more about sustainable production in order to better calculate your prices? Continue on to **Chapter 4: Sharing and co-creating knowledge for sustainable production.**

Or you can adventure on to another chapter that piqued your interest...

# PRODUCING SUSTAINABLY

SHARING AND CO-CREATING KNOWLEDGE FOR SUSTAINABLE PRODUCTION

MANAGING AND ACCESSING SUSTAINABLE INPUTS



In the following group of chapters, we explore the production side of sustainable food systems.

However, we do not go into detail about sustainable production practices – this kind of information is very context-specific and is not the purpose of this handbook. Some online tools can help you find this information:

- ▶ [www.fao.org/sustainability/frameworks-approaches/en/](http://www.fao.org/sustainability/frameworks-approaches/en/)
- ▶ [www.fao.org/agroecology](http://www.fao.org/agroecology)
- ▶ [www.ifoam.bio/en/organic-30/organic-food-system-program](http://www.ifoam.bio/en/organic-30/organic-food-system-program)
- ▶ [www.ifoam.bio/sites/default/files/organic\\_food\\_system\\_in\\_practice\\_feb2017web.pdf](http://www.ifoam.bio/sites/default/files/organic_food_system_in_practice_feb2017web.pdf)

Instead, the handbook focuses on two aspects of organizing sustainable production systems: how to share and co-create knowledge about sustainable production and how to access and manage sustainable inputs.

Both of these topics comprise many innovations, and we share some ideas from the authors' experiences that may help guide your journey.





PARTNERS

FORMALIZING

FINANCE

GUARANTEES

PACKAGING

LOGISTICS

INPUTS

KNOWLEDGE

PRICE

MARKETS

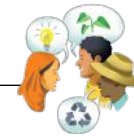
CONSUMERS

# 4

## SHARING AND CO-CREATING KNOWLEDGE FOR SUSTAINABLE PRODUCTION



CONSUMERS MARKETS PRICE KNOWLEDGE INPUTS LOGISTICS PACKAGING GUARANTEES FINANCE FORMALIZING PARTNERS



## 1. WHY IS THIS IMPORTANT?

Producing sustainably requires producers to have access to a wide variety of information and knowledge about natural cycles, human interventions and interactions between systems.

A key aspect of sustainability is to provide equal opportunities for innovating and sharing knowledge with current and future generations. All actors need to know what it means to “produce sustainably”: this will create greater awareness throughout the food system. Nonetheless, developing mechanisms for knowledge co-creation and sharing require a sense of creativity, an ability to collaborate, and knowing who to work with.

This chapter is about “how” innovative approaches to sharing and co-creating knowledge work, and “how” different types of actors have organized themselves (both formally and informally) to do this.

### TIP 19

**Figure out when formal and informal approaches are more appropriate.**

Formal knowledge creation and sharing (legally framed partnerships, institutionalized knowledge, recurring programmes) are more appropriate when there is a need to continuously improve capacities and knowledge over time. Informal approaches are simpler.

## 2. HOW TO APPROACH KNOWLEDGE FOR SUSTAINABLE PRODUCTION?

There are two particularly interesting approaches that are best adapted to sharing and co-creating knowledge for sustainable production:

1. **Learning by doing** emphasizes practice as a way of acquiring knowledge and know-how. It includes a variety of methods such as farmer-to-farmer exchange visits, action research, and participatory research. This educational approach is used in a variety of settings and emphasizes that knowledge must be an applied activity because learning about sustainable agriculture derives from one’s own experiences and practices.
2. **Farmer-led experimentation** focuses more deeply on farmers as key vectors of innovation. There are various combinations of farmer-led innovation platforms: farmer-public actor platforms, farmer-civil society platforms, farmer-private sector platforms, multi-actor innovation platforms and farmer field schools. Farmer-led experimentation is a type of research initiated and carried out by farmers in their own fields and can be initiated within existing farmer groups. This approach enables farmers to identify technological options suited to local agroecological/organic and socio-economic conditions.

**TIP 20**

**Reflect about the sustainability of your farming practices**

Acknowledging the degree of sustainability of your activity is an important first step for identifying knowledge gaps. The self-assessment process, which can be as simple as comparing your daily routine to the standards of sustainable practices of interest, will help you better understand and communicate the language of sustainability. It will also allow you to make more informed decisions and can become necessary if you seek certification.

Start by looking at the material you received from your training or any standard you are trying to follow. You can also use some internationally recognized tools to guide you, such as those listed below.

- ▶ **SAFA Guidelines (FAO):** The FAO indicators for sustainability were developed by practitioners and expert analysis in order to provide a critical overview for the assessment of sustainable production.

To know more, visit:

[www.fao.org/nr/sustainability/sustainability-assessments-safa/en](http://www.fao.org/nr/sustainability/sustainability-assessments-safa/en)



- ▶ **SHARP (FAO):** The Self-evaluation and Holistic Assessment of climate Resilience of farmers and Pastoralists (SHARP) was developed to address the needs of smallholder farmers and pastoralists to assess their climate resilience at the level of individual households and communities.

To know more, visit: [www.fao.org/in-action/sharp/en](http://www.fao.org/in-action/sharp/en)



- ▶ **Best Practice Guideline for Agriculture and Value Chains (IFOAM):** The Best Practice Guideline for Agriculture and Value Chains aims to lead, guide and inspire people to work cooperatively through sustainable agriculture. It aspires to empower individuals and organizations to improve their own performance and practices, quality of life, and the well-being of their communities.

To know more, visit:

[www.ifoam.bio/sites/default/files/best\\_practice\\_guideline\\_v1.0.pdf](http://www.ifoam.bio/sites/default/files/best_practice_guideline_v1.0.pdf)



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## 3. DIFFERENT MECHANISMS FOR DIFFERENT PURPOSES

### 3.1. Farmer-to-farmer exchange visits

Exchange visits are useful for sharing knowledge with other producers practicing sustainable agriculture. They can be formal and recurrent as activities that ensure a continuous flow of information among members. Also, they can be ad hoc, i.e. organized around a current issue or when a specific piece of information is needed.

**Remember that exchange visits can be effectively used to share knowledge when relationships between farmers are trust-based.**

If farmers trust each other, they will not worry about knowledge appropriation and it will be easier to access relevant information.

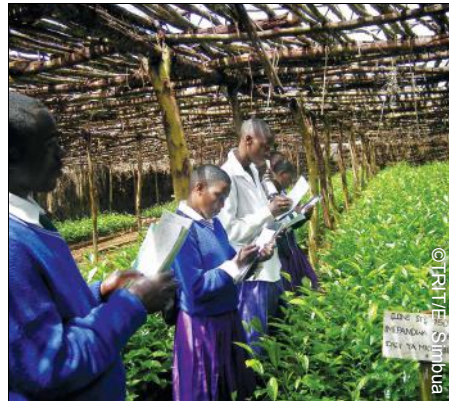
CASE BOX

31

#### The TRIT programme for farmer exchanges (Tanzania)

Farmer exchange visits are being implemented by the Tea Research Institute of Tanzania (TRIT) as part of a wider technology transfer programme to support knowledge-sharing amongst smallholder tea producers. Usually, the activity is planned in such a way that more technology-savvy farmers host those who are lagging behind on similar issues. The underlying key assumption is that a technology already successfully used by farmers is more likely to be adopted than if that same technology is promoted by an extension officer or any other external agent.

Ways of implementing such exchange visits can be divided into two categories: inter-village internal exchange visits (within the same district) and inter-district external exchange visits.



- ▶ Visits to other geographical locations or districts tends to be more attractive to farmers. Apart from the taught target topics, farmers are also exposed to and learn about new surroundings, new people who may share different cultures, and new food. Altogether, these factors foster a bonding experience among the farmers and create a positive learning atmosphere.

► Internal exchange visits are simple and effective for very specific topics related to production or value-addition. They can be short and allow farmers to exchange their experiences more freely, given that they work in the same agroecological environment. While they don't fully recreate the “tourist experience”, they do offer opportunities for group bonding and networking.

There are important logistical arrangements which need to be considered when organizing such exchange visits:

1. **Number of participants:** The number of participants needs to be manageable to allow for smooth, inclusive participation. Based on the experience with TRIT, having a group of 20-30 participants was ideal, as they fit on a mini-bus, travel together and continue their discussions and interactions throughout the entire trip.
2. **Duration of the visit:** Exchange visits need to be short and effective, ranging from several hours in a single day for internal exchange visits to between 1-3 days for inter-regional visits. Visits lasting beyond three days tend to bore participants.

3. **Logistical support:** TRIT supports participants with upkeep expenses to accommodate their overnight visits. For the shortened day-long visits, refreshments are offered to create a favorable atmosphere for discussing and exchanging ideas. TRIT owns two 30-seater mini-buses that are usually used to transport participants to various locations.

Past experience with institutionalized exchange visits indicates that the approach is very effective in providing platforms for sharing experiences. During such visits, host farmers are proud and honoured to welcome visitors and they want to impress them. Equally true is the visitors' reciprocated sentiment, expressing gratitude to their hosts. Visitors will look forward to adopting the role of hosts and will typically be well prepared to share their practices. Such programmes have a key shortcoming insofar as they are unlikely to last without a facilitating institution such as TRIT.

*Source: Emmanuel Simbua, TRIT*

### 3.2. Farmer field schools

Farmer field schools (FFS) have proven to be an effective tool for knowledge-sharing between farmers by promoting practical and direct experimentation (farmer-led approach). The focus is on the local adaptation of existing practices and technologies. This tool is particularly relevant in promoting the transition to sustainable agriculture. Through FFS, communities of practice can be fostered, which can become innovative initiatives if participants decide to engage in other activities, such as processing or marketing sustainable products.



## TIP 21

### Set up a FFS

1. Conduct a Training of Trainers (ToT) session on how to facilitate a FFS.
  - ▶ Each facilitator should prepare a training report that they deliver to the management of their organization and to their colleagues.
2. Ensure that the facilitator raises awareness about the FFS in order to inform and obtain people's support to implement it.
  - ▶ This activity typically occurs during a meeting or a convened village assembly and is open to all interested producers.
  - ▶ Information about the history, objectives, technical results and implementation conditions of FFS is provided. Participants share their experiences, discuss their main challenges and talk over the FFS implementation. The facilitator documents and collects this information.
3. Select the FFS plot.
  - ▶ The plot should be selected at least one month before the training and in consultation with farmers' organizations or community organizations.
  - ▶ The selected plots must take into consideration the area's constraints (potential land conflicts, animal damage, flooding, etc.), must be as secure as possible, and must be easily accessible.
4. Run the Community Participatory Diagnosis of Constraints and Opportunities, a survey about producers' practices and problems. The survey will help define the training content.
  - ▶ At least one month before the onset of the agricultural calendar, it should be conducted by the facilitator in a participatory way through interviews with local producers and actors.
5. Participant selection greatly influences the training's success and the programme's impact.
  - ▶ The following criteria can be used to guide participant selection: a producer of the crop under study; a volunteer; open to innovation; ability to participate regularly in training sessions; accept the dissemination of knowledge gained from other producers and accept visits to their plot.
6. Prepare and facilitate training sessions.
  - ▶ Define a training programme based on the results gathered from the basic surveys. Both agronomic and other specific topics (like group dynamics, knowledge of insects, compost production, etc.) can be included within the programme. It should encourage producers to respond to concerns expressed by other producers.
  - ▶ Prepare training materials, visual resources, etc.
  - ▶ Stimulate self-reflection, interaction between farmers and direct experimentation.
  - ▶ Create a good learning environment by managing discussions effectively and ensuring that men and women, young and old participate equally.
  - ▶ Perform an in-season and an end-season evaluation of results.
7. Organize a closing ceremony and deliver certificates. This is a way to sensitize and inform the community about the results of the FFS in terms of the level of participants' knowledge and the improvement of the production.

Source: <http://www.fao.org/3/a-i4411e.pdf> and <http://www.fao.org/3/a-i3948f.pdf>



## Incubator farms (France)

In France, there is a growing trend among smallholders to set up incubator farms. The recently established national network of incubators (Réseau national d'espace test agricoles, Reneta) is a clear indication of this development.

Among the most successful examples are the “*Champs des possibles*” incubators. They were created by the local CSA network in the region of Paris to satisfy the need for increasing the number of new entrants in short-chain farming systems. As stated in Peter Volz *et al.* (2017, p.34):

The incubator farms provide access to land and equipment, mentoring and legal status to new growers during a trial period. The aim is to help them gain new skills and confidence, test farming practices, build a consumer base and develop their professional network before getting started on their own farm. This is a key dimension to bridging the gap between training and entry into farming for prospective farmers who's training often lacks practical experience.

Since its establishment in 2009, “*Champs des possibles*” has incubated 40 future farmers and helped install 14 new farmers.

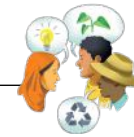
It has also expanded into new trial sites and launched a larger cooperation with a local organic agriculture association, with a national community-based land trust called Terre de Liens, and with the CSA network. The goal was to set up an informal platform to promote new farmers in the area. They all felt there was a need for cooperation between different expert organizations: one providing training and mentoring on agronomic skills; another on distribution systems and community connections; a third one on trial farming; and a last one on finding and securing land. Thus, cooperation between all these different structures was necessary to provide a broad and coherent set of activities. The purpose is to help future farmers move “from initial plans to actual farming, securing every step of their entry path into farming” (Peter Volz *et al.*, 2017, p. 36).

Source: Jocelyn Parot, URGENCI

To know more, visit:  
[www.accesstoland.eu/IMG/pdf/reneta\\_overview\\_farmincubators\\_france\\_en.pdf](http://www.accesstoland.eu/IMG/pdf/reneta_overview_farmincubators_france_en.pdf)  
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### 3.3. Participatory research and action-research

Participatory research and action-research can be powerful strategies to fill farmers' knowledge gaps, and to foster collective learning and understanding among different actors in a given food system.

- ▶ In participatory research, the researcher and participants co-construct research questions with the participants. Data collection and analysis is conducted through the researcher's participation in project activities.
- ▶ Though action-research is not always founded on co-constructed research questions, the purpose is to conduct research that will effect change during the project via partner engagement.

#### CASE BOX

33

#### Action research to promote agroecological practices (Ecuador)

EkoRural is an Ecuadorian NGO promoting sociotechnical innovations in rural areas through an endogenous and people-centred approach. Given EkoRural's focus on facilitating novel relationships between producers and consumers, a process of agroecological intensification was launched in 2010 by linking a peasant organization from Tzimbuto, Asociación Nueva Generación, with urban consumers belonging to the organization Canasta Comunitaria Utopia located in Riobamba. An action-research approach was adopted whereby products, practices, relationships, flows and rules emerging from the process were recorded and critically analysed by participants in order to find common solutions. The research-action process was carried-out as follows:

##### 1. Documenting and analysing

**expectations:** Ekorural, as an experienced organism in action-research processes, focused on people, documented the offer of the

farmers' organization Asociación Nueva Generación and analysed the expectations of both members from Canasta Comunitaria Utopia and Asociación Nueva Generación.

2. **Sharing expectations:** Meetings were organized where EkoRural experts facilitated the sharing of expectations between members of the two organizations, thus creating a space for mutual understanding and agreement. Moreover, farmers participated in exchange and learning events to familiarize themselves with the dynamics of Canasta Comunitaria Utopia. Consumers from Canasta Comunitaria Utopia visited farmers from Asociación Nueva Generación to raise their awareness about the rural reality and the importance of local consumption.
3. **Setting up the delivery scheme:** The scheme began in 2010, although consumers noted some problems in the quality of delivered products, thus cultivating a fragile alliance. Producers lacked the experience in agroecological

production and direct marketing and experienced difficulties in coordinating and organizing the collection, quality control and delivery of products.

4. **Overcoming existing gaps via dialogue:** During the first two years of the project, EkoRural gave a transport subsidy to farmers from Tzimbuto to visit Canasta Comunitaria Utopia. Asociación Nueva Generación decided to re-emphasize the importance of quality products, as well as to comply with the agreed upon quantity and product diversification.
5. **Realigning:** To respect the agreement with Canasta Comunitaria Utopia, EkoRural supported Asociación Nueva Generación members in the modification of their farming practices to better reflect and support agroecological Andean agriculture. New species and native varieties, staggered plantings, crop rotation, and farm planning were introduced through farmer-to-farmer exchange visits, thus widening the selection of agroecological products. Delivery and quality control systems were also improved.
6. **Encouraging continuous feedback:** Regular meetings were facilitated by EkoRural to allow members of the two organizations to continuously share their experiences and



concerns, thus sustaining flows of information and feedback. After each event, consumers evaluated it and producers' representatives were invited to these evaluation sessions. Moreover, producers' representatives were systematically invited to Canasta Comunitaria Utopia's general assemblies, thus providing a space for producers to express their perceptions of the relationship, and to discuss price issues and collaboration agreements.

Given the adopted approach, an innovative form of interaction was created where producers and consumers share values and goals, mutually determine fair prices, and transition from a relationship based on profit-maximization to one based on values of reciprocity and trust.

*Source: Ross Mary Borja, Fundación Ekorural*

### 3.4. Interactive innovation

An interactive innovation is a multi-actor configuration established to facilitate and undertake various activities around the challenges and the opportunities identified in sustainable food systems. There is no set structure for an interactive innovation and actors can be different. In addition to the participation of civil society and farmers, these types of innovations also typically involve public and/or private actors.



## Civil society–public partnership to promote the EcoHealth concept (Colombia)

In 1994, the Government of Colombia created a legal framework to ensure citizen and community participation in the planning, management and evaluation of public health plans. As part of this legal framework, Community Participation Committees in public health (COPACO) were created at the municipal level, thus providing a space for discussion and consultation. In the Sumapaz municipality, Bogotá district, the Nazareth Hospital, in concertation with the local COPACO, requested and obtained financial support from the Public Health Secretary to create the Centre for the Development of Human Potential (CDPH). Given that the Nazareth Hospital is the district's only rural hospital, the centre is designed to respond to the rural population's specific health needs through an ecosystemic approach to human health called "EcoHealth". The CDPH consists of two main components: Parque Temático Chaquen and Eco Therapy Programme.

1. **Parque Temático Chaquen** is an innovative strategy to address the causes of health problems in rural areas: unsafe working conditions, inadequate farming practices, inadequate diets, dispersed populations, low income and a hostile relationship with the environment. The park's activities are organized around different dimensions:

- ▶ **Food availability and access:** Both have increased for families that interact with the park. Through the diversification, recovery and conservation of ancestral nutritive species cultivated and spread in the park and distributed to families,

the diversification of diets is encouraged.

- ▶ **Consumption and biological use:** Consumers' knowledge of healthy diets and healthy foods are strengthened to achieve an adequate health and nutrition status.
  - ▶ **Safety and food quality:** Farmers receive incentives to eliminate the use of pesticides in order to produce food with greater biological value and create healthier working conditions on the field.
  - ▶ **Healthy habitat:** Farmers are trained and coached to adopt clean production systems, and Good Agricultural Practices (GAP) are demonstrated to park visitors.
  - ▶ **Safe and healthy work environment:** A healthy work environment is promoted through actions and training both at the community and at the individual levels, as well as in the formal and informal sectors.
2. The **Eco Therapy Programme** is an innovative rehabilitation therapy for vulnerable populations. It implements intervention techniques and strategies to re-create meaningful and valued social roles, thus leading to increased employment opportunities and social inclusion. Around 100 people who were street dwellers and suffering of various mental illnesses in Bogotá are included in the Eco Therapy Programme, offering a different approach to health improvement. They receive horticultural, ecological, medical, psychological and psychiatric care to verify, identify, describe and counter their illness.

*Source:* Andrea Moya, Claudia Helena Prieto, Parque Temático en Salud Pública Chaquen Subred Integrada de Prestación de Servicios de Salud Sur

### Farmer-researcher partnerships (Kenya)

Farmers are a rich source of indigenous knowledge and practice. However, their expertise has historically been undervalued, and there has been limited convergence between informal innovation and formal research and development systems. The dominant model of farmer support has been a top-down, “transfer of technology” approach, whereby scientists determine research priorities, generate technology and with the help of specialists, transmit it to extension workers who then transfer it to farmers. This approach excludes farmers from the development and dissemination of new technologies.

Consequently, farmers rarely adopt these technologies, which they often consider irrelevant and disregarding of their social, economic and environmental circumstances. It has been increasingly recognized that farmers have valuable knowledge and experience to contribute to the process of agricultural research and development, and that as the end-users of technology, they should be actively involved in all stages of the process.

PELUM Kenya and Jomo Kenyatta University of Agriculture (JKUAT) have partnered to engage in an interactive process involving the community and like-minded actors with different knowledge and skills in order to validate, adopt and scale-up farmer’s innovations. Scientific support of innovations enhances farmers’ knowledge capacity, while researcher-farmer engagement builds farmers’ confidence in their capacity to adapt technologies to their own farms. The partnership enhanced farmer-led approaches, whereby farmers also became involved in formal research processes.

The partnership intends to bridge the gap between farmers and researchers, facilitate farmer-led research approaches and provide an avenue for farmers to access other farmers’ research results and technical innovations at JKUAT. PELUM built their programme based on what they learned from the MASIPAG model that has been functioning in the Philippines for many years.

Source: Carmen Cabling, Quezon PGS



©R. Borja



### 3.5. Citizen-led advice

On a global scale, public authorities are beginning to recognize the ineffectiveness of top-down advice as an approach that does not consistently integrate sustainability in its proposed solutions to producers. Instead, more efforts are being made to improve citizen engagement through innovative planning and actions at the local level. Local leaders who mediate relations between communities and public institutions play a pivotal role in these kinds of arrangements and can be key assets in addressing sustainability challenges with innovative solutions.

#### CASE BOX

36

#### Yachachiqs (Peru)

According to the National Agricultural Census (2012), in Peru, 10 percent of farmers do not have access to training, advice or technical assistance services. In light of this gap, NGOs work to develop the skills and capacities of community leaders. Nowadays, these farmers and community leaders have been integrated into the extension services for rural development and are called “Yachachiq” (the one who teaches, the teacher). One of the first rural development projects that included peasants as extension agents was PRODERM (1986-1991), followed by other projects that adopted a similar approach during the 1990s and 2000s. Extension workers focus on the inclusion of peasant leaders in the process of knowledge-sharing which becomes a factor of local empowerment. Indeed, communities participating in such projects were able to co-create the new extension system. Currently, MIDIS (Ministry of Development

and Social Inclusion) implements the Haku Wiñay programme (My Entrepreneurial Farm) jointly with Yachachiqs in 40 000 households throughout 19 regions in Peru. In 2017, they had an annual budget of 200 million soles (approximately USD 60 million) which is the smallest programme within MIDIS (representing 4-5 percent of the total annual budget). It develops with the following key principles:

- ▶ strengthening family production systems;
- ▶ improving healthy housing;
- ▶ promoting inclusive rural businesses; and
- ▶ increasing financial literacy.

Source: Patricia Flores,  
IFOAM Organics International

To know more, visit:  
<http://intranet.foncodes.gob.pe/haku2016/index.php/blog/yachachiqs>



CASE BOX

37

**School for training leaders in food and nutrition security and sovereignty (Colombia)**

The Management School in food sovereignty and food and nutrition security in Colombia promotes community empowerment by emphasizing its three fundamental concepts – food sovereignty, and food and nutrition security. The school incentivizes knowledge-sharing and strengthens civil society, by enabling community participation in the formulation, implementation and monitoring of public food policies. The process started in some urban areas

around Bogotá where local leaders were identified and trained on how to recognize and address territorial needs, and how to most efficiently utilize local resources. Training leaders also allows local communities to be fully involved in the realization of territorial development plans proposed by local governments. Each training sessions follows a participatory approach focused on learning-by-doing, which allows participants to learn while they develop their own policy proposals.

*Source:* Andrea Moya, Claudia Helena Prieto Parque Temático en Salud Pública Chaquen, Subred Integrada de Prestación de Servicios de Salud



## 4. WHAT MECHANISM IS RIGHT FOR YOU?

As sustainable food systems are constantly changing and breed new challenges and opportunities, sharing knowledge and experiences should be an ongoing activity. Communication between food system actors about sustainable production practices can also create opportunities for resolving other challenges.

- 1 Identify what your main knowledge need is, and experiment with some different strategies.

Do you want to start a sustainable initiative and you don't have much information about sustainable farming practices?	<ul style="list-style-type: none"> <li>• Farmer-to-farmer exchange visits</li> <li>• FFS</li> </ul>
Do you want to foster a sense of community among farmers?	<ul style="list-style-type: none"> <li>• Farmer-to-farmer exchange visits</li> <li>• Citizen-led advice</li> </ul>
Do you want to improve mutual understanding among different actors within your system?	Participatory research and action-research
Do you want to fill a knowledge gap through a bottom-up approach that ensures collective learning?	Participatory research and action-research
Do you want to spread knowledge on sustainable farming practices among actors within your system?	Interactive Innovation
Do you want to take advantage of existing opportunities to link sustainable agriculture with the provision of public goods?	Interactive Innovation
Do you want to integrate local communities in decision-making processes on food system development?	Citizen-led advice

- 2 Working together with multiple actors is fundamental to the success of these approaches. We suggest that you identify actors who complement your expertise and who are willing to embark on the new journey with you. Do not only think about your members, invite other potential partners in your local community.

**Remember:**  
if you don't ask, you'll never know!

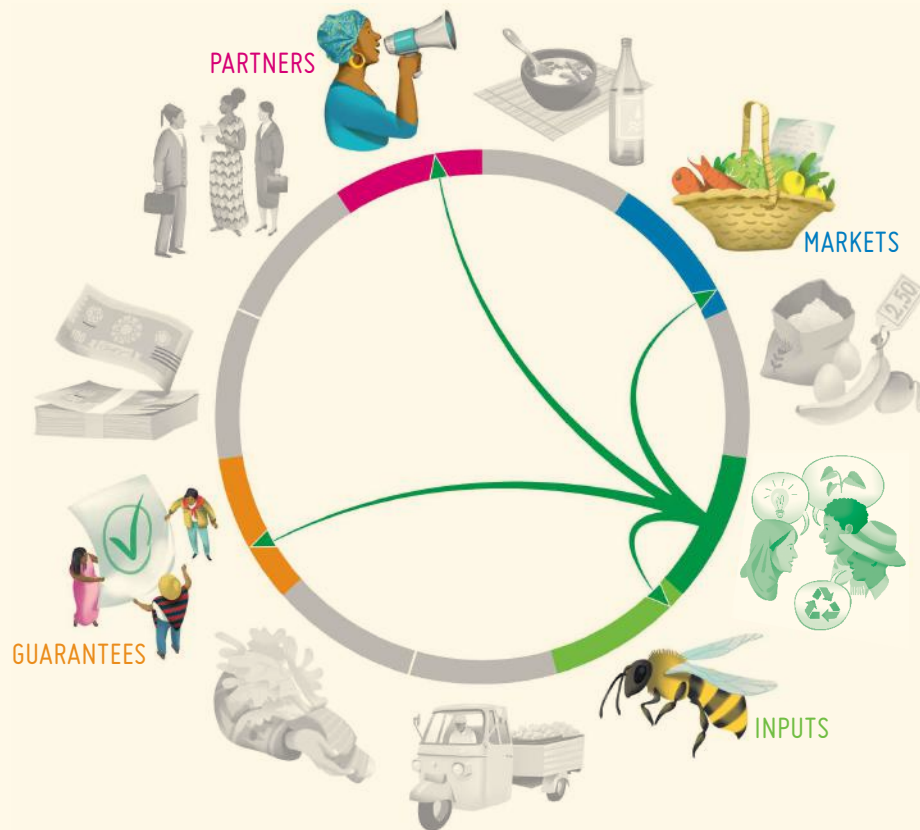
### TIP 22

#### Share and co-create knowledge

- ▶ Self-evaluate your practices in order to better communicate what you are doing to others.
- ▶ Knowing how to gain access to knowledge about sustainable production when you need it is half the battle.
- ▶ There are multiple methods for co-creating knowledge and learning. Understand why you are seeking certain information and choose the right mechanism for you.
- ▶ Collective research or experimentation is a way to co-create knowledge, and to ensure that the content learned is also retained.



# THE LEARNING ADVENTURE, WHERE TO NEXT?



- ▶ Have you identified a partner who you work efficiently with and want to find long-term solutions? Try reading **Chapter 11: Bringing in partners and advocates**.
- ▶ Did you carry out a self-assessment and have you thought about obtaining a certification? Go to **Chapter 8: Guarantees for sustainability**
- ▶ Have you introduced a new crop to your rotation and want to sell it? Look through **Chapter 2: Knowing your markets**.
- ▶ Do you need to know more about inputs for sustainable production? Continue on to **Chapter 5: Managing and accessing sustainable inputs**.

Or maybe you need other information? Try another chapter...

# 5

## MANAGING AND ACCESSING SUSTAINABLE INPUTS







## 1. WHY IS THIS IMPORTANT?

Sustainable food systems must be sustainable across all of the activities – from food production to consumption, including the materials used to produce food. Indeed, a number of issues pose specific challenges to producers when they try to ensure that their inputs (both materials and services) are sustainable, such as the:

- ▶ unavailability of non-synthetic inputs in many rural areas;
- ▶ presence of counterfeit products or ineffective products, with no way to hold companies accountable;
- ▶ higher, erratic and unregulated prices;
- ▶ risk of possible GMO contamination;
- ▶ highly toxic active and non-active ingredients of products used in neighbours' fields;
- ▶ evident disappearance of skilful indigenous technology, especially in seed conservation;
- ▶ limited space to operate alternative networks for seed and input exchanges outside conventional markets;
- ▶ lack of research on many sustainable inputs and ecological solutions to pest and disease control; and
- ▶ the lack of integrity, transparency and honesty of some extension workers and intermediaries responsible for providing advice on inputs and their sustainable use.

Accessing inputs that are synergistic with sustainable agriculture is often a challenge, usually for two reasons:

- a. They must be produced on-farm, requiring time and resources that may not be sufficiently available on your farm.
- b. They must be purchased from or exchanged with others, but local input suppliers don't always carry sustainable options and local exchange networks may not yet be established.

In the planning stages of sustainable production, accessing and managing the use of sustainable inputs must be clearly determined. These inputs should be thought about in relation to other activities in your farming and food system.

## 2. WHAT INPUTS DO YOU NEED TO GROW SUSTAINABLE FOOD?

Inputs are materials and services (including ecosystem and social services) needed to produce food and other agricultural products.

Sustainable inputs can be thought of as the resources and services needed to farm ecologically and that contribute to the sustainability of the agro-ecosystem and to the food system in general.

They are divided into six categories:

Table 4 **Types of Inputs**

Types of inputs	Examples
Who needs to contribute their time and knowledge to production?	Farmer knowledge and skills, additional labour (family, hired, shared, etc.), veterinary services, mason services, extension services.
What needs to be grown, collected or recycled?	Animal feed, animal manure, collected or harvested fodder, medicinal plants, animal breeds, seeds, planting materials, plants for intercropping, plants as insect repellents.
What tools are needed to produce sustainably?	Planting tools (e.g. tillers, tractors, animal traction, fertilizers and manure), harvesting tools (e.g. baskets, nets, cutting machines), plant protection tools (e.g. protective clothing, bio-insecticides), building materials for farm structures (e.g. cement, roofing, wood).
What type of land is accessible?	Community plots, rented land, individually owned land, communal pastoral lands, rooftops, contracted land, natural or artificial ponds, coastland.
What ecological and biological services and conditions are needed?	Appropriate environmental factors (humidity, temperature), indigenous micro-organisms, soil flora and fauna, pollinators, water, micro and macro nutrients from natural cycles, energy/ electricity, animal integration into the production system for natural fertilizer, soil aeration, etc.
What is needed to communicate with others about the farm's activities?	Certification services, farm registration services, communication services, marketing services.

### On-farm or off-farm production?

Inputs required for sustainable production can be sourced from the farm itself (on-farm) or externally (off-farm). Producing your own inputs is often the most cost-effective and sustainable way to access ecological and biological services. By recycling nutrients within the farm or agroecosystem, you can reduce the nutrient loss that sometimes occurs with the use of external inputs.

However, it is sometimes the case that your farm doesn't have all of the nutrients, technology or labour needed to reach the desired productivity. Worldwide, alternative business models are emerging that offer interesting ways to access inputs: start-ups focusing on providing new technologies or services directly to farmers, and exchange systems where communities organize new types of collaboration for sharing inputs, technologies and labour.



### 3. HOW SUSTAINABLE ARE YOUR INPUTS AND HOW TO MAKE THESE MORE SUSTAINABLE?

Just as the sustainability of your production system can be self-assessed, so can your inputs. To begin, take note of the inputs needed for each of the above categories to start farming, to rehabilitate abandoned land or to convert a conventional system to a sustainable one.

After listing all the possible inputs in the above categories, consider assessing each one of the inputs that you plan to have, currently have, or that you may lack. A good exercise is to think about the sustainability of each input and compare it to its *desirable* state. Finally, write down practical actions for how you will transition towards a more sustainable solution for accessing inputs.

The following table can be used as a starting template:

Table 5 Template for categorizing inputs

Input categories	Input characteristics		Recommendations
Input	Sustainable (desirable)	Unsustainable (undesirable)	Action needed to move towards sustainability
<b>Seeds</b>	High germination rates can be saved and re-sowed, desired quality (taste, colour, size) profile, easy access	Low germination, not reproducible, cannot be saved and re-sowed, desired quality profile, high cost, difficult accessibility	Collaborate with other farmers to build a seed exchange, negotiate higher quality seed availability with the local supplier, establish linkages with certified seed distributors
<b>Fertilizer</b>	Animals and compost integrated into a mixed production system that can sufficiently support a healthy soil microbiome	Excessive applications of purchased synthetic fertilizers and inaccessible animal manure or compost	Introduce animals into the production system, begin composting kitchen and farm waste, collaborate with other farmers to access fertilizers that are applied in a way that balances the microbiome
<b>Land</b>	Secure rights to own or use and make changes for now and in the future	No guaranteed access, security threats, not easily reached, not the right size or quality to cultivate	If squatting on land, try to register it. If feasible, purchase rented land or ensure that the rental agreement covers at least three seasons. Speak with the community in order to set up a secure system for cultivation or using communal lands in a sustainable way
<b>Now you try...</b>			

## 4. POSSIBLE OPTIONS: EVALUATING DIFFERENT WAYS TO SOURCE INPUTS

Once you know which inputs you need, determining how to sustainably access them on-farm is fundamental. In this section, examples of innovative ways to source a range of inputs are provided.

Though one approach may be successful in a particular situation, it doesn't mean that it can be applied to all situations. In our experience, many solutions to better source and manage inputs begin with good intentions yet present many problems for small-scale farmers once they are implemented. A main concern lies in evaluating whether the input cost will outweigh the potential production benefit, or whether the way(s) you access or manage the input fit(s) into your normal schedule. As you develop your sourcing strategy, think carefully about the “pros and cons” of each innovation.

### 4.1. Time or labour

#### 4.1.1. Sharing labour rather than paying for it: time banks

Maintaining a sustainable farm is a team effort, so sharing labour is a valuable asset. Being involved in a system that provides help from farmers/ students outside the farm has proven to be useful in sustaining a small-scale farm.

#### CASE BOX

38

#### Labour sharing (India)

In a large number of villages in Himachal Pradesh, India, an informal labour-sharing system called “Jawari” is used. It is an autonomous self-functioning system in a closed community based on existing interpersonal trust-based networks. A smallholder may call a Jawari for completion of any work on or off the farm (such as building a new cow shed). In return, the smallholder is compelled to respond to calls for labour sharing from other smallholders. In this social system, there is no monetary exchange and it functions based on

reciprocity and trust. The smallholder hosts the workers as guests and caters to their food and lodging needs.

#### Pro

- + When cash flow is limited, additional labour can be requested.

#### Con

- Hosting workers can be personally/ socially challenging.

Source: Ashish Gupta, Jaivik Haat



## 4.2. Material inputs for production

### 4.2.1. Off-farm fertilizers

New business models have emerged to satisfy fertilizer needs when these exceed farms' capacities to produce them on-farm.

CASE BOX

39

#### Healthy fertilizers derived from restaurant waste (Colorado, US)

Wastefarmers is a B Corp certified business in Arvada, Colorado that specializes in making healthy soil fertilizers from waste collected from restaurants, businesses and schools. These organic fertilizers are transported to a "Microbe Brewery" where they are composted and then sold to farmers. The Microbe Brewery and the farm where it is located serve as an educational space and offer annual tours to thousands of people free of charge. Their employees are rewarded with paid time on the farm and educational opportunities. B Corps are for-profit companies certified by the non-profit organization B Lab to meet rigorous standards of social and environmental performance, accountability, and transparency.



©A. Looonito

#### Pros

- + Small farmers find it difficult to create and manage large quantities of compost even if biomass is available, given that the labour required is demanding. Very few tools are affordable and usable by farmers. Companies that produce large quantities of organic fertilizer are a viable solution for reducing urban and industrial waste and for increasing the use of organic compost.
- + It creates additional jobs in rural and urban areas.
- + The responsible enterprise model and labour conditions offer an equitable business model for sustainability.

#### Cons

- Significant infrastructure investments (e.g. roads, large processing plants) are needed to transport the waste and fertilizer.
- Collaboration with public actors is needed in order to authorize the purchase or donation of waste that can be collected from public buildings and landfills.

Source: <https://www.wastefarmers.com>

To know more, visit:  
<https://www.wastefarmers.com>,  
<http://www.bcorporation.net/community/waste-farmers>



### 4.2.2. On-farm energy generation

There are a number of new small-scale technologies that are emerging to convert farm waste into energy.

CASE BOX

40

#### Husk Power Systems (India)

This small company's mission is to create a self-sustaining ecosystem in rural villages and farms in India that don't have consistent access to electricity. It has developed a power generator containing biomass gasifiers that run on unused rice husks, able to provide electricity for up to 600 families. Its pilot plants were profitable for six months, attracting reliable investments for expansion.

#### Pro

- + It is an effective mode of recycling organic waste and potentially contributing to rural electrification.

#### Con

- The machine cost is high and implementing it on rural farms may be complicated.

Source: [www.huskpowersystems.com/innerPage.php?pageT=Communitypercent20Impact&page\\_id=81](http://www.huskpowersystems.com/innerPage.php?pageT=Communitypercent20Impact&page_id=81)



©A. Locorito



### 4.2.3. Seed exchanges

In many countries, formal certified seed distribution systems are dominant, as they consistently provide information about seed quality and use. However, many varieties that contribute to traditional (and diversified) diets, that resist to certain pests or drought, or that are conserved on-farm are not included in these systems. Traditional forms of seed exchange and innovative seed banking techniques are used around the world.

CASE BOX

41

#### Seed mothers (India)

In Odisha, India, an initiative was launched to respond to the unsustainable effect of conventional seed kits (certified seeds, chemical fertilizers and pesticides, small irrigation pumps, post-harvest machines, and farm tools) as experienced by a local community of small-scale farmers. A group of tribal women known as “seed mothers” are experts in seed identification, collection and multiplication. Their system consists of mapping the biodiversity of the village’s small-scale farms and identifying seeds that are appropriate for each farm, ensuring crop biodiversity, multiplying seeds and sharing them with other farmers, and following procedures for pure-line seed selection. The multiplicative model requires families to grow between 13 to 467 seed varieties including millet, pulses, greens, paddy rice and tubers, all identified and saved by the group. Regular seed exchange and distribution fairs are organized with the seed mothers who offer advice to farmers regarding seed choice, storage methods and crop management. The seed mothers treat seeds as they would their own children. As a result, a total 5 321 households have enriched their backyard gardens, producing food that is available during a period of 6 to

11 months per year. The project challenges the assumptions of conventional farming and encourages new, organic, participatory breeding techniques.

#### Pros

- + The diversity of varieties increases the biodiversity and resilience of the agroecosystem.
- + Exchanging seeds rather than paying for them reduces farmers’ input costs.
- + Cultivated seed and crop variety increases the availability of food throughout the year, having a positive effect on food security.

#### Con

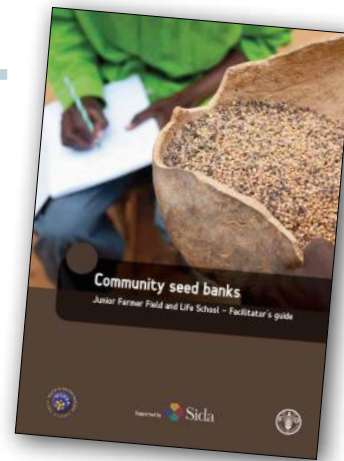
- Community seed banks and exchange systems must be very vigilant about seed quality. It is important for each community to have someone knowledgeable of and capable of maintaining the seed quality.

Source: Organization for Rural Reconstruction & Integrated Social Service Activities (ORRISSA)

To know more, visit:  
<http://www.fao.org/3/a-bl924e.pdf>

**TIP 23**  
**Set up your own seed bank**

Check out this facilitator's manual:  
[www.fao.org/fileadmin/user\\_upload/fao\\_ilo/pdf/Other\\_docs/FAO/Community\\_Seed\\_Banks.pdf](http://www.fao.org/fileadmin/user_upload/fao_ilo/pdf/Other_docs/FAO/Community_Seed_Banks.pdf)



CASE BOX

42

**M Farm (Kenya)**

A key to sustainable agriculture is access to surrounding markets for inventory, seeds and farming ideas. M-farm is a start-up that aims to connect small-scale farmers to their surrounding markets by providing them with real-time price information. This smartphone application (“app”) provides price information for crops in five market areas: Nairobi, Kisumu, Eldoret, and Kitale. The app also allows farmers to buy seeds using M-Pesa (Kenya’s mobile phone-based money transfer system).

**Pro**

- + M-farm helps farmers buy and sell crops more efficiently, allowing their farming practice to be more sustainable in the long-term. Also, the smartphone app provides a valuable communication tool.

**Cons**

- Since this start-up is relatively new, proof of its sustainability is limited. Many apps similar to M-farm exist, and it is difficult to measure their impact on the daily lives of small-scale farmers without increasing their input costs. Though such innovations are positive, it is fundamental to sift through the ones that work without increasing small-scale farmers’ input costs.
- Access to a smartphone and the Internet is mandatory. The app is also already linked to M-Pesa, so you must have already signed up for that service.

Source: M-Farm Website: <https://www.mfarm.co.ke>

To know more, visit:  
<https://www.mfarm.co.ke>

CONSUMERS

MARKETS

PRICE

KNOWLEDGE

INPUTS

LOGISTICS

PACKAGING

GUARANTEES

FINANCE

FORMALIZING

PARTNERS



## 4.3. Tools and machines

It is difficult to be sustainable if all aspects of production and processing are performed manually. Numerous tools and machines have significantly helped to mechanize some production processes. Often, the problems that small-scale farmers face are tied to the difficulties in accessing the appropriate tool size. To make tools more accessible, the following suggestions can be helpful:

- ▶ Create community-managed tools and machines shared by all members to reduce the cost of production.
- ▶ Train local artisans to repair or modify the equipment to suit the environment.
- ▶ Create essential spares for the motorized vehicles or machinery that can be collectively owned by the cooperative.
- ▶ Create a local equipment rental shop that can rent out small-scale machinery or other tools.
- ▶ Create farm service start-ups that can be hired to plough, weed, survey or harvest.

### 4.3.1. Animal traction

If your plot is in predominantly semi-humid/semi-arid zones and highlands, animal traction methods/ inputs may be a valuable investment. However, animal traction is becoming less desirable, due to the rise of mechanization and the various complications associated with the animal's health, training, and the acquisition of appropriate tools. Some benefits associated with this input are:

- ▶ When used correctly, it can increase productivity.
- ▶ It is a low-cost, environmentally safe technology.
- ▶ It can be purchased locally.
- ▶ It doesn't require drastic changes in farming systems.
- ▶ It is very effective for small-scale farmers.
- ▶ The manure produced by the animal is a great way to fertilize the soil on the field.

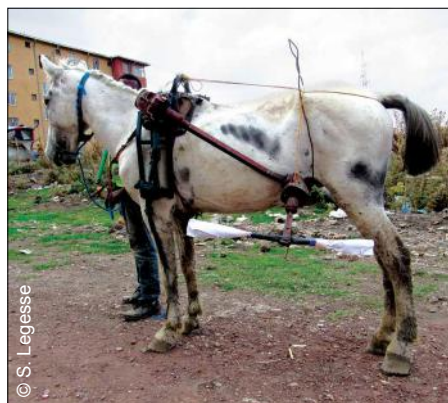


## Anicytor, green energy driver of farm tools (Ethiopia)

Traditional tools do not close farmers' technical/engineering knowledge gap – all farmers have technological needs. Climate change has global repercussions, and entire landscapes are being destroyed due to the inappropriate use of traditional farming tools and farm-land expansion. To solve the above problems, animal “pulling” is transformed into animal “pedalling”, resulting in a very effective green energy-based, labour-intensive technology for developing countries. Animals have powerful legs: the front legs are driven by inertia and body mass ratio, while the hind legs are taller and muscular, generating the required force. As the animal walks and steps, this potential energy will be transformed into kinetic energy. So, by attaching levers and gears to the animal's legs, the back-and-forth movement/ kinetic energy will shift into a full (360 degrees) rotation. This means a mechanical engine that can drive wheels and other mounted farm instruments – hence the scientific name of “Anicytor”: Animal cycling/ pedalling tractor. The innovation is compatible for use by any four-legged animal and by humans. Its size/height is adjustable to the specific size of the animal and the intended purpose of its use.

### Pros

- + Given that no fuel is consumed, and it can be composed of locally available materials, it can considerably reduce waste and pollution. It can be used for street-cleaning.



© S. Legesse

- + It can be made from locally available materials to replace imported tractors.
- + Since most farmers in developing countries have technological needs, they are target users of this new farming technology.
- + Employment opportunities are created by making farming interesting and easier for rural youth. and in the construction of its various spare parts, in assembling, whole sale, retailing, and providing services using the tool.

### Con

- Need to ensure that the animals are treated humanely when they are using it.

Source: Sitotaw Legesse and Yeshi Engineering Share Cop, Ethiopia

To know more, visit:  
<https://agriprofocus.com/profile/sitotaw.legesse.22606>



### 4.3.2. Handheld tools for smallholders

Smallholders predominantly work manually. Over time, agricultural tools and instruments have been developed to reduce the drudgery, especially for women farmers. For example, in rice paddy cultivation, transplanting and weeding is an essential part of the cropping system. Women experience severe hardships during both of these processes. In the mountains, where land is terraced and adequate land area for cultivation is not uniform, challenges are all the more pronounced. Thus, it is important that the appropriate tools – ergonomically designed, efficient in output, and light to carry – are available to smallholders at affordable prices.

CASE BOX

44

#### Agrovision handheld tools for small and marginal Farmers (India)

A company in eastern India makes exclusive tools for small and marginal farmers. There is a number of local blacksmiths and tool designers working at various local levels across the country, though only a few use innovative, manual tool innovations. The company makes its tools and its designs freely available. It also encourages local craftspeople to adapt the tools to local conditions, making the tools completely open-source. It often occurs that tools designed for heavy clay soil conditions are not suited to sandy soil, so the local agricultural setting must be considered. Among the most popular tools made by this company are those linked to paddy cultivation such as Cono and Paddy Weeder, typically used by farmers when applying certain techniques, such as the System of Rice Intensification. Additionally, tools such as multiple seed drills, dry land weeders, wheel hoes with attachments are also used. The tools are effective and affordable and can also be customized to local needs.



©R. Shivastava

#### Pros

- + The tools are open source and easily adaptable.
- + Their light weight makes them easier for women to use.
- + They can mechanize production at a relatively low cost.

#### Con

- They are still hand tools, which means that some labour is needed.

Source: Ashish Gupta, Jaivik Haat

**TIP 24****Obtain sustainable tools and/or machines**

- ▶ Try the technology yourself and propose a feasible option.
- ▶ Launch a participatory process that allows community members to propose solutions.
- ▶ Purchase tools from the market, though this may increase risk associated with quality, availability, and cost.
- ▶ Look for technologies that fit your changing climate conditions and the post-harvest implications of inputs.

## 4.4. Enhancing ecosystem and biological services

### 4.4.1. Biochar to help build up soil organic matter

Though it is a slow process, adding biochar to soil can build up its organic matter, resulting in a more fertile and climate-resilient soil.

CASE BOX

45

#### Wanakaset Network (Thailand)

Wanakaset Network member P. Yai distills essential oils from herbs and fruits. As Wanakaset members practice agroforestry, they have ample quantities of branches and sticks. P. Yai uses a biomass stove that efficiently converts this biomass into heat to boil the distillation tanks during the several hours required to capture the essential oils, producing very little smoke.

Green Net processes organic cashew nuts by, first, steaming them (to open the shells), and drying them. The shells are used to fuel a biomass oven that generates heat and steam for this process, thus greatly reducing the need for and use of natural gas or electricity. Some modern rice mills generate power from rice husks. These husks become rice husk charcoal/ash used as a good soil amendment (like biochar) or sold to computer chip manufacturers for its high-quality silicon.

#### Pros

- + Reliable use of waste.
- + An efficient means of recycling nutrients back into ecosystems.
- + Easy to use for farmers and it is good equipment to have in a farm system.

#### Con

- Larger, more efficient biochar stoves may be inaccessible for small-scale farmers due to cost and maintenance conditions. However, many small-scale farmers are successfully producing and using biochar in different forms. In Southeast Asia, common home-built units produce charcoal (used as fuel), wood vinegar (used as a biopesticide), and biochar (small bits) used in compost and soil-potting.

Source: Michael Commons, GreenNet



## 4.4.2. Integrated pest management services

Controlling external threats to crops such as pests, weeds, and drought is a major challenge. However, in order to avoid using pesticides and herbicides, an integrated system that “fights nature with nature” can be a viable solution.

### CASE BOX

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### Dudutech (Kenya)

Dudutech is a company that supplies farmers with beneficial insects/ fungi to reduce their use of insecticides and pesticides that are typically unsustainable and stress crops. Distributed packages contain certain bio-inputs (beneficial fungi, insects, bacteria) that fight harmful external threats to crops in a mutually beneficial way for plants and insects/ fungi. An example of a bio-input to fight drought is mycorrhiza, a fungus that forms a symbiotic relationship with plants, exchanging water and fertilizers for plant sap and sugars. Mycorrhiza dramatically increases the plant's effective root volume, reducing its stress, and allowing it to continue growing in times of drought. Dudutech supplies over 17 different biological control agents and provides bio-input packages to farmers in Kenya and South Africa.

#### Pros

- + This company offers employment to over 100 skilled employees in a rural, agricultural area of Kenya.
- + The ability to hire an expert in Integrated Pest Management (IPM) to service the farm provides farmers with access to knowledge on IPM that they may not yet have.

- + The company's website is very helpful, it makes suggestions about which package to use for specific problems. For example, for a case of powdery mildew, the website advises the farmer to use “TRICHOTECH”, which is a package distributed by Dudutech to fight this type of mildew. This type of integrated crop management programme has a holistic approach that may be successful in the long-term.

#### Cons

- These packages may be too unaffordable for small-scale farmers, as the majority of customers are large landholders.
- Selling micro-organisms incubated in labs or factories means that there is little control over the quality of the final product. Microbial concentrations are prone to have a shorter shelf-life and a decreased efficacy in the long term. Also, the concentration guaranteed by manufacturers does not account for local soil conditions, moisture, and farmers' application methods. Thus, in most cases, given that products are applied using average estimates, their actual effects are difficult to measure.

Source: Allison Loconto, INRAE

To know more, visit:  
<http://www.dudutech.com>



### 4.4.3. Water cycle management services

With the effects of climate change, water cycle management is becoming more challenging. Large-scale irrigation is often not feasible in many areas of the world, so farmers have opted for alternative, innovative solutions to recover water and redirect its natural cycle for agricultural use.

CASE BOX

47

#### Two examples of water management (Zimbabwe, India, Tanzania)

1. **Phiri pits (Zimbabwe):** In drought-prone areas, a traditional practice is to build underground pits with stones that can both filter rainwater and increase the soil's retention capacity. In the 1960s, a certain Mr. Phiri began discovered this system by practicing it on his farm with a series of pits located in different spots of the farm. The result has been long-term drought resilience.

To know more, visit:

<https://youtu.be/cXLD0akTmrl>,

<https://youtu.be/ieqYZaT0jwA>

2. **Gravity pumps (India/Tanzania):** Highland and mountainous regions may also suffer from water shortages due to natural, downhill water flow directed by gravity. In India, small-scale technology engineers began using gravity by placing a pump in a stream at the bottom of a hill. The force of the falling water collides with the pump mechanism which is sturdy enough to propel the water back up the hill through a tube which reaches the farm. This technology is also actively used in the Tanzanian highlands.

Source: Allison Loconto, INRAE.

#### Pros

- + Such rainwater-capture technologies can help farmers create a low-cost, small-scale irrigation system.
- + Hydraulic Ram Pump designs (the best-known gravity pump) can easily be found on the Internet.

#### Cons

- Gravity pumps require waterfall and flow, meaning they do not function well in flat areas or during long, dry seasons.
- Phiri pits require maintenance. You cannot build them once and forget about them; the new soil that falls into them needs to be shovelled out.





#### 4.4.4. Pollination-supporting inputs

In global agricultural production, pollinators provide an essential service to the ecosystem. Complex interactions between pollinating species such as bees, birds, butterflies, and bats with plant species is a valuable cycle to maintain in a sustainable farm. Farmers should stay informed about pollination systems and obtain pollinators for their specific crops and agroecosystems. For example, the main pollinator for coffee beans is the bee.

CASE BOX

48

#### Helping the natural pollinator cycle (Malaysia)

Getting involved in pollinator-trading may encourage and sustain natural pollination cycles on your farm. It involves transporting living material into ecosystems where they are ordinarily absent. In turn, this will help to establish a pollination system that can increase the field's crop yields for "free". For example, the weevil, a specific beetle responsible for the pollination of oil palm, was introduced in Africa and Malaysia where oil palm is a major crop. Pollination was manually performed prior to its introduction, and crop yields have significantly increased since.

Source: Susan Boohaker, FAO

#### Pros

- + Pollination services are an essential "agricultural input" that ensure crop production.
- + Improving pollinator density and diversity directly and positively impacts crop yields.

#### Con

- The introduction of new species always carries the risk that these can become invasive and destabilize the ecosystem. Introducing new insects (even if they are beneficial ones) requires particular care and attention. Begin by looking for local species that may play the same role.

To know more, visit:

<http://www.fao.org/pollination/en>



## 5. HOW DO YOU MANAGE YOUR INPUTS?

Once you understand your inputs needs and the scope of emerging techniques or technologies, start reflecting about accessibility. How are you currently accessing your inputs? How are you managing their use? What are the alternative options?

### CHECKLIST

**Responding to the following diagnostic questions will help you identify practices that can and cannot be sustained over time.**

1. How are you managing your land?
  - a. Are you up to date with any payments, titles or contacts?
  - b. Do you have to collaborate or negotiate with anyone else to ensure that your land use is sustainable?
2. How are you managing your water?
  - a. Do you have natural sources or do you have to pay for it?
  - b. Do you have to collaborate or negotiate with anyone else to ensure that your water management plan is sustainable?
3. How are you managing your nutrient cycles?
  - a. Are you using synthetic or biological fertilizers?
  - b. Do you buy them, make them yourselves, or trade them with other farmers?
4. How do you manage pests and diseases?
  - a. Are you using synthetic or biological plant protection products?
  - b. Do you buy them, make them yourselves, or trade them with other farmers?
5. How do you manage farm labour?
  - a. Are you using your own (or family labour), or do you hire others?
  - b. Do you compensate for family labour?
  - c. If you hire workers, do you recruit them yourself or do you rely upon others?
  - d. Are you offering fair compensation for your workers?
6. How do you manage your technology and machines?
  - a. Do you build your own technologies/machines on-farm, or do you acquire them externally?
  - b. Do you purchase, rent, or share your technology?
  - c. How do you maintain your machines?



Once you reflect on these questions, try to fill in the following matrix to determine why you are sourcing your inputs from specific people/places.

Table 6 Input sourcing matrix

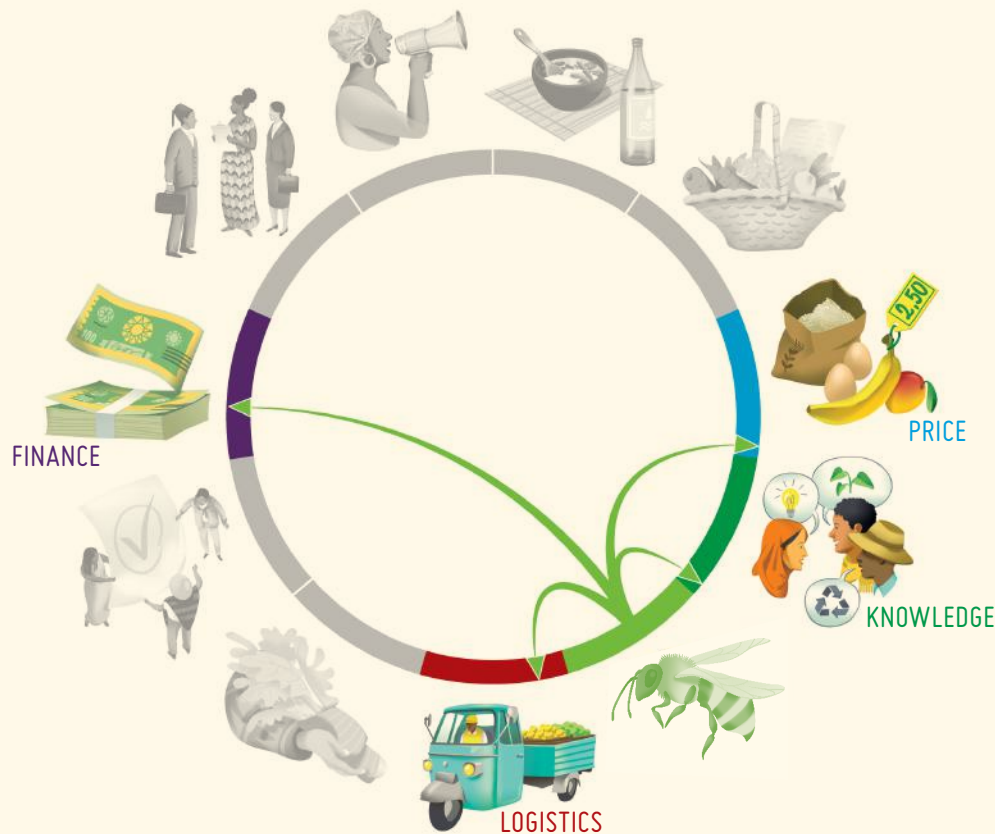
Name of Input	Where do you get the input from?	What percentage is local?	Benefits received	Challenges faced	Sustainable Alternatives
Urea	Input supplier	100	Cheap, easy access	Nitrates leaching into water sources, decrease in soil health	Begin reducing the use of external inputs by first applying livestock manure, then testing if you need additional nutrients. If you don't have any on farm, see if there is a livestock farm in your area.
<i>Now you try...</i>					

**TIP 25**  
Manage and access sustainable inputs

- ▶ Inputs in sustainable agriculture are not just material additions to the system; they also include the land, ecosystem and human services that ensure production.
- ▶ The most sustainable option is to keep all natural cycles within the farm. If that isn't feasible, try setting up exchanges to reduce input costs.
- ▶ There are a lot of appropriate technologies available that fit sustainable production; open source helps encourage experimentation and innovation.
- ▶ Innovative business models can ensure that time and labour, fundamental inputs in sustainable systems, are fair and sustainable.



# THE LEARNING ADVENTURE, WHERE TO NEXT?



- ▶ Did you think that knowledge, as an input, was excluded from the discussion? Don't worry, it was covered in **Chapter 4: Sharing and co-creating knowledge for sustainable production.**
- ▶ If you can't produce all of your inputs on-farm, you may have to purchase them. Do you need some ideas on innovative financing mechanisms? Go to **Chapter 9: Innovative finance.**
- ▶ Do you want to try recycling off-farm organic waste into biogas or compost? Read **Chapter 6: Staying connected through logistics.**
- ▶ Are you producing more material inputs than you can use and want to sell them to other farmers? **Chapter 3: Finding the "right" price** may offer some helpful insight...

**Or visit another chapter... it's up to you!**

# GETTING PRODUCTS TO MARKET

STAYING CONNECTED THROUGH LOGISTICS



PACKAGING FOR SUSTAINABILITY



GUARANTEEING SUSTAINABILITY



In this group of chapters, we explore how to navigate through those intermediate activities that ensure that sustainably produced food reaches consumers.

We focus on logistics, packaging and guarantees; these all add value to sustainable products but should also be sustainable themselves.

If these are some elements you require, try starting your adventure here.

CONSUMERS

MARKETS

PRICE

KNOWLEDGE

INPUTS

LOGISTICS

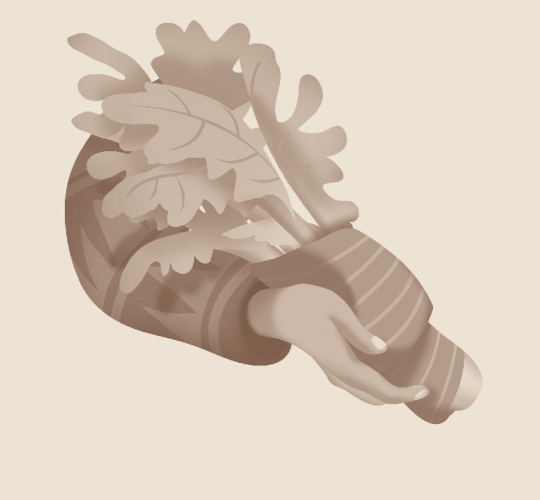
PACKAGING

GUARANTEES

FINANCE

FORMALIZING

PARTNERS

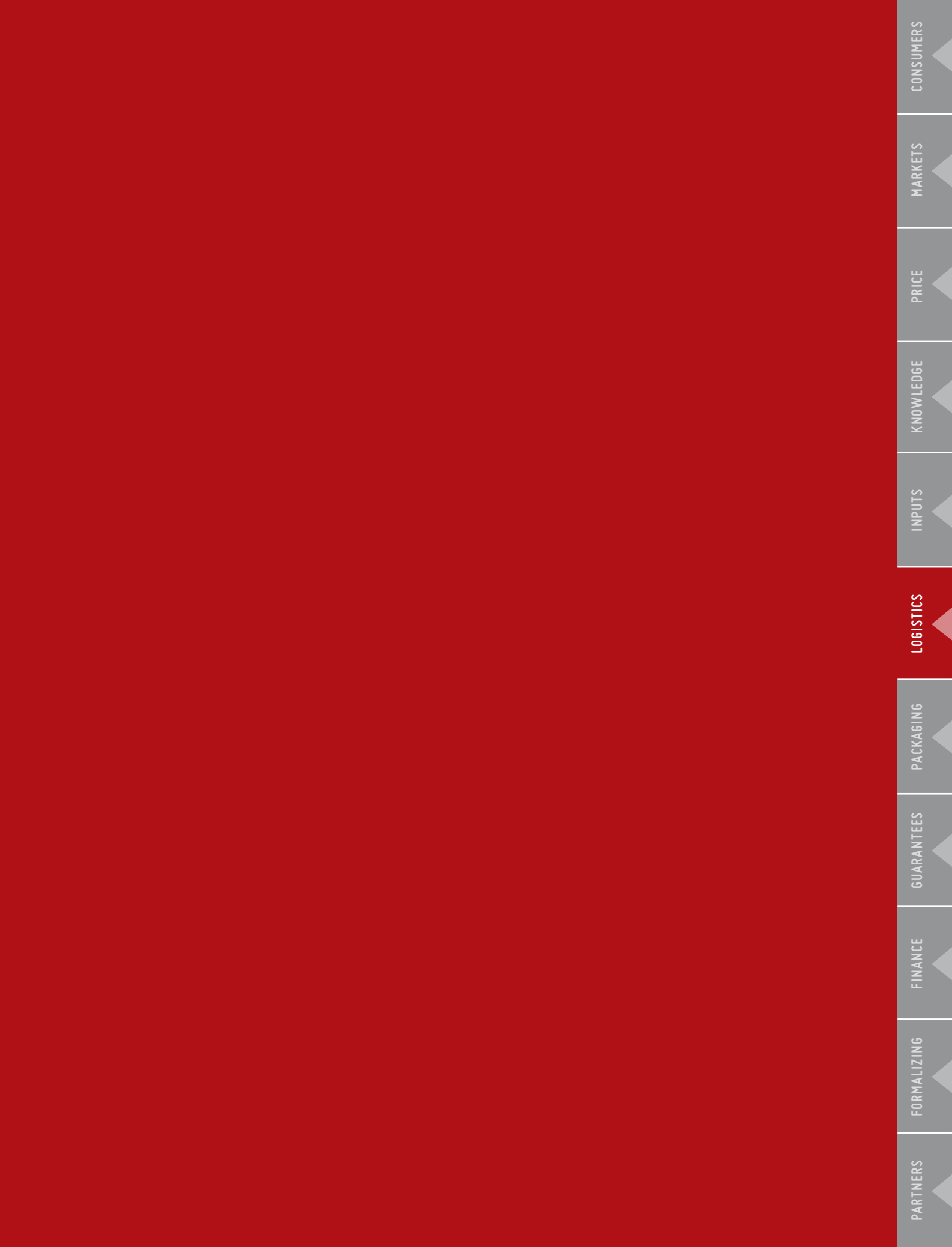


# 6

# STAYING CONNECTED THROUGH LOGISTICS







PARTNERS

FORMALIZING

FINANCE

GUARANTEES

PACKAGING

LOGISTICS

INPUTS

KNOWLEDGE

PRICE

MARKETS

CONSUMERS



# 1. WHY IS THIS IMPORTANT?

While you may have a great product, getting it to your customers (either consumers or processors) in good condition, with the agreed upon quality standards and delivery time, is the key element to building solid and sustainable market relationships.

The requirements are the same for the management of by-products deriving from sustainable agriculture, which then need to be processed into secondary value-adding products.

Finally, waste should be managed. Organic waste is compostable into farm inputs or usable as an energy source (biogas). Non-organic waste is reusable whenever possible (for example: glass bottles) or recyclable if the local infrastructure is available.

Consistently well-structured logistics are substantially valuable to buyers and distributors who seek to ensure a constant supply to consumers. In addition, they are also beneficial to producers, as streamlining logistical obstacles within a sustainable production system generates higher added value, reduces costs and fosters overall sustainability.

However, logistical management is difficult, and timing is fundamental! Key challenges include the definition of logistical needs and the minimization of costs required to meet those needs. What does this mean?

The following calculation will help you to determine logistics:



Based on the products you have, ask yourself:

Are they:	Who are you exchanging with?	What is your buyer looking for?
<ol style="list-style-type: none"> <li>perishable?</li> <li>for individual consumers or wholesale clients?</li> </ol>	<ol style="list-style-type: none"> <li>How far away are they?</li> <li>Do they offer transport, or do you need to arrange it?</li> <li>What are the transport conditions? For example, do you need cold storage or special types of crates?</li> </ol>	<ol style="list-style-type: none"> <li>Do you have the right quantity and quality?</li> <li>When do they need the products? Do they have a flexible schedule?</li> <li>Can you easily reach their location by using normal transportation?</li> </ol>

If you have answered these questions, then you are ready to build a simple logistics plan.

## 2. HOW TO BEGIN WITH A LOGISTICS PLAN?

Business logistics normally cover the complete product cycle, from production (or processing) to sale. Therefore, activities related to purchasing, storage, inventory, and/or transport may be included. To be sustainable, the logistics plan should also account for circular flows of by-products and backward flows of waste.

Operationalization is often determined by the local context, by human capital (e.g. culture, skills and costs) and by the business and legal environments. Therefore, there is no single plan for all situations, and plans should be periodically optimized and revised.

To start with a logistics plan, begin by filling in, step-by-step, the table below with your own products.

**Remember:**  
a plan that is difficult to operationalize is a bad plan!

The steps	Rice	Vegetables	My produce (fill this in yourself)
<p>a. Start with the production/operation flow chart which indicates all working steps, people involved, and main tasks.</p>	<p>Rice farming &amp; harvest ▶ paddy collection ▶ paddy storage ▶ milling ▶ packing ▶ delivery to consumers</p>	<p>Vegetable farming &amp; harvest ▶ collection centre ▶ storage ▶ washing and trimming ▶ packing ▶ delivery to consumers</p>	



The steps	Rice	Vegetables	My produce (fill this in yourself)
<b>b.</b> Fill-in the number of people, space, time, equipment, and unit costs needed for each step.	<ul style="list-style-type: none"> <li>• Milling is done by a private contractor, requiring a minimum of 5 tons of paddy, producing roughly 3.5 tons of milled rice.</li> <li>• The truck can carry a maximum of 1 ton (set by local regulations).</li> <li>• The truck fee is USD 200 per trip.</li> <li>• Packing rice at the office, the space can stock around 2 tons.</li> </ul>	<ul style="list-style-type: none"> <li>• Receiving 100 kg of vegetables on Thursday afternoon.</li> <li>• Need ten people to do trimming and packing with the costs of USD 2 per hour.</li> <li>• Need four hours for trimming and packing</li> <li>• Need two hours for delivery to consumers.</li> <li>• Buyers (consumers) want to pick up vegetables at 17.00 hours in the city.</li> </ul>	
<b>c.</b> Ensure that the logistics make sense, ask yourself “Does everything fit together?”	<ul style="list-style-type: none"> <li>• One of the trucks is half-filled, thus higher costs.</li> <li>• Not enough space for storing milled rice.</li> </ul>	The delivery could not be made on time on Thursday.	
<b>d.</b> Consider other options and their implications, confirm the feasibility of a new logistical configuration.	<ul style="list-style-type: none"> <li>• <b>Option 1:</b> negotiate with the rice mill to reduce the minimum to 2.8 tons of paddy (1.9 tons of milled rice) but the milling costs would be higher.</li> <li>• <b>Option 2:</b> find extra storage space near the office for 1.9 tons but you need to pay rent and labour costs for uploading and downloading twice for some rice, then increase the milling volume to 5.6 tons (resulting in 3.9 tons of milled rice).</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Option 1:</b> ask farmers to deliver earlier, by 10.00 hours on Thursday morning, farmers must begin harvesting at 05.00 hours.</li> <li>• <b>Option 2:</b> increase the number of labourers to 20, thus reducing time allocated to trimming and packing by half, but labour costs increase;</li> <li>• <b>Option 3:</b> ask farmers to harvest on Wednesday evening and deliver on the same day but would need to have cold storage overnight.</li> </ul>	
<b>e.</b> Anything that can go wrong, will go wrong. Therefore, your calculation should include an error margin, or safety factor, or a contingency plan.	Storage space should be 10 percent bigger than planned to allow flexibility.	When ordering vegetables from farmers, you should add 5-10 percent more than what is really needed.	

It is often assumed that the product determines the logistics, yet this is not always true. In some cases, logistics (mainly costs and distance to the market) determine the products. Make sure that you consider this as you develop your plan.

### 3. WHO MANAGES LOGISTICS?

Some producers set up a stand on their farm to sell directly to consumers. In some models, particularly for certain fruits, customers are invited to the farm to harvest their own produce at a lower price (a pick-your-own farm). However, most often, farmers need to transport products to another location, such as a farmers' market, a hotel, restaurant, school, a supermarket distribution centre, a CSA pick-up point, a buyers' home, or a warehouse for further transport across the country or overseas.

This process requires logistics and a transparent intermediary. While there are unscrupulous middlepersons particularly in unorganized supply chains, transparent intermediaries play an important role in the collection and delivery of farmers' products to their markets, a service that nonetheless includes overheads (transport/storage/repacking) and potential risks (losses/ damage/ inability to sell). Farmers may receive a lower price if they involve an intermediary. However, the price does not typically include the logistical costs of transport, storage or risk.

One possible path is for the initiative to develop the skills and find the equipment to manage this autonomously (to become the transparent intermediary), but this is often not the easiest nor the best option. For small volumes, using your own truck may cost more than paying a logistics company to transport the products for you. Bulk buyers and even concerned consumer groups may have the equipment and ability to pick-up from the farm, saving this investment and challenge. As long as the farmers can produce consistent quality and volumes to match the buyers' needs, and particularly if they have unique ecological products, they will be in a stronger position to negotiate and secure fair returns for what they offer.

CASE BOX

49

#### Meeting in the middle, turning disadvantage to advantage (Lao PDR)

Xaobaan is a small, socially engaged enterprise based in Vientiane, Lao PDR that produces high-quality, natural yogurt and dairy products. Trying to integrate more marginalized groups, the manager, Mrs. Nongnut Foppes Ayamuang, recruited members of the deaf community who currently manage all daily logistics, deliver

products to different distribution points, often by motorcycle. When working in noisy areas, their limited hearing and their ability to communicate via sign language is an asset. Mobile phone messaging services allow them to easily communicate with others who do not speak sign language. What might have been considered a work impediment, is regarded as strategically beneficial to their operations.

*Source: Michael Commons, Earthnet Foundation, Thailand*



## 4. LOGISTICAL CONCERNS

### 4.1. Storage

A basic rule for logistics is “less work, less problems”. It is ideal to choose a logistics plan that requires no storage.

Yet, storage is essential for inputs (e.g. seeds, seedlings, organic fertilizer), raw materials (e.g. paddy), semi-processed products (milled but not-yet-packed rice), and finished products (e.g. packed rice ready to sell to consumers). Sometimes, it is operated at community-level with a public storage warehouse, though it is often handled by an intermediary or producer group. Be aware of the available options in your local area!

Below are factors to consider when managing storage:

- ▶ **Quantity:** Besides having sufficient storage areas to match your volume, some products, especially raw materials and semi-processed products, may lose weight when stored due to pests, loss of moisture, and deterioration over time. Consider these elements when you are setting up the storage space in order to minimize loss.
- ▶ **Quality:** Different products require different storage conditions. For example, certain vegetables may need particular temperatures and moisture levels, while other products (e.g. coffee, tea) absorb fragrance and smell from the surrounding environment. Good storage management must account for individual product characteristics.
- ▶ **Inventory:** There are a few elements to consider when thinking about inventory, such as:
  - the “first in, first out” rule;
  - who is authorized to take products out from storage?
  - who controls the checking of inventory? Often, the inventory is either completely ignored or over-regulated. Find a suitable level of operation.
- ▶ **Costs:** To be sustainable, business requires the low maintenance of costs through efficiency and effectiveness. Storage costs may include many items. Consider some examples of storage costs:
  - initial investment costs, i.e., buying and building the storage facilities;
  - depreciation costs (especially for accounting purposes);
  - maintenance costs, i.e. for repairing roofs, walls and/or machinery.
  - electricity and amenities, e.g. cold storage needs an air conditioner running 24/7, 365 days a year;
  - regular cleaning;
  - pest control services;
  - shelving or racks;
  - labour for unloading; and
  - inventory control staff.

## 4.2. Small-scale or artisanal processing

The basic rule where logistics don't apply is “more processing, less problems”.

There is a difference between transporting fresh produce and semi- or fully processed products. By processing some products on the farm or at local collection points, you can extend the products' shelf-life and transport it over longer distances. These types of value-adding activities can also generate higher prices for producers. Processing can rely on industrial or modern equipment, though it would require a lot of up-front capital investment. Traditional or artisanal processing can be just as effective if you abide by hygiene and food safety standards. Artisanal processing can also offer marketing opportunities, as you can claim the “handmade”, “traditional” or “artisanal” attribute, which some consumers prefer.

CASE BOX

50

### Processing par-boiled rice in Songhai Centre (Benin)

The Songhai Centre in Benin, a youth training and production centre, is organized as a hub and spokes model of innovation that enables the processing of products across its network. In a central hub in Porto Novo, modern processing equipment bottles spring water and fruit juice, and produces and packages popcorn, biscuits and savoury snacks. An on-site bakery prepares bread and pastries, a smoke house cures meats, and mills process soy into oil and packed rice.

This central hub sources its raw materials from its own farm and fishponds, and from the five regional satellites that are located in different agroecological areas. Each satellite, also a training centre, either self-sources produce, or sources it from ex-students who now have their own farms nearby. Farmers bring their produce to regional hubs where products such as dried mangoes and mango pulp, are processed. The mills' flour residue is mixed with other materials to make livestock feed. Using artisanal methods, fruit juice and snacks are produced in these hubs, a portion of which is sold on-site at the farm stall.

Songhai hosts a technician training programme in their Machinery Department. Technicians develop and manufacture all kinds of machines that are adapted to local needs and various products (rice, palm oil, fruit juice, palm kernel oil, gari [from cassava tubers], animal feed, drying, among others). These machines are also available for sale at a reduced, affordable price, so they are purchasable by others who wish to boost their production and primary processing systems. For rice processing, Songhai owns trucks that travel between the satellites and the hub, picking up raw products and delivering processed ones. Rice, for example, is carried from the satellites to Porto Novo to be parboiled, sun-dried and then packaged using standardized, labelled bags sold domestically or exported. Parboiled rice is easily processable without the need for modern machinery, and the consumer market price is considerably higher due to its shorter cooking time.

*Source:* Allison Loconto, INRAE and Belvue Akpatcho, Centre Songhai, Benin  
<http://www.songhai.org/index.php/en/home-en/16-songhai/191-biotransformation-en>



### 4.3. Transportation and delivery

Again, the basic rule for logistics applies: “less transport, less problems”.

Also, factors influencing transport management are similar to other logistical issues as it is a form of temporary storage. Additional factors to consider are the truck, the driver, and traffic.

For a start-up, it is often best to use specialized delivery and transport services as much as possible. An upfront investment isn't needed, and costs are typically lower for small quantities. Once quantities increase, more sustainable options are needed.

When considering absolute sustainability (throughout the product's life cycle and across the entire food system), choose delivery services that require less fossil energy, e.g. a preference by order: bicycle, train, ship, electric or hybrid vehicles, or truck. Try to share transportation as much as possible to maximize the space and reduce the number of trips necessary (e.g., carpooling or sharing a truck cargo space). Make sure that your decisions also consider your final market location. When this option is not feasible, having one's own means of transport becomes necessary. In this situation, adequately calculating transportation costs and their associated carbon footprint is critical for business success.



### EcoVida distributed transportation system (Brazil)

EcoVida is a network of 4 500 families that sell agroecological products across four states in the south of Brazil. Their distribution network spans over 1 600 km. On a weekly basis, farmers bring their products to a hub (nucleus) managed by a farmer. Each nucleus manager sends a message via WhatsApp to the other managers informing them of the current product quantities and the incoming orders. For example, one hub has 10 kg of oranges and 20 kg of bergamots and is looking for 5 kg of bananas, 1 kg of cashew nuts and 10 kg of rice. Another hub manager may have 15 kg of rice and 10 kg of cashew nuts and needs 5 kg each of oranges, bergamots and bananas.

Orders are placed and the truck route is determined accordingly, stopping first at hub 1 to pick up the oranges, hub 2 to pick-up the rice and bananas and drop off the oranges, and hub 3 to pick-up/drop off other products. On the way back, the



bananas, nuts and rice will be delivered to hub 1.

All trucks must be owned by an Ecovida farmer-member, there are no external distributors to handle shipping.

Prices are also negotiated for all weekly traded products. Fixed transport costs are also added: BRL 0.30/kg for short trips and BRL 0.60/kg for long trips (e.g., Curitiba to São Paulo).

Source: José Antonio da Silva Marfil, Ecovida, Brazil





Table 7 Typology of different delivery systems

Delivery system	Examples	Benefits	Challenges
<p>FARMERS      CONSUMERS</p>	Farmers markets	<ul style="list-style-type: none"> <li>▶ Allows consumers to know their producers.</li> <li>▶ No intermediaries in the supply chain.</li> <li>▶ More quantity and variety available for consumers.</li> <li>▶ Storage may or may not be included.</li> </ul>	<ul style="list-style-type: none"> <li>▶ No guarantee that what the producer brings to market will be sold.</li> <li>▶ Both producers and consumers have to use their own transportation, meaning higher costs.</li> </ul>
<p>FARMERS      CONSUMERS</p>	Co-op shops; farmers shops; CSA drop-off; food assemblies; collective purchasing groups, Box schemes	<ul style="list-style-type: none"> <li>▶ Can enable farmer-led prices.</li> <li>▶ Can be a useful regular outlet for local producers.</li> <li>▶ More quantity and variety available for consumers.</li> <li>▶ Farmers can organize to minimize transportation costs to the collection point.</li> <li>▶ Box delivery to consumers can be organized to minimize costs.</li> <li>▶ Storage may or may not be included in this model.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Minimum storage has to be included in this model.</li> <li>▶ It may be difficult to manage timing since it depends on the influx of consumers.</li> <li>▶ Supply is seasonal, so it may be difficult to securely and consistently supply regular consumers.</li> <li>▶ Demand can be very low during some periods of the year (e.g. during summer holidays).</li> </ul>
<p>FARMERS      CONSUMERS</p>	Farm-gate sales, Farm shares in a CSA	<ul style="list-style-type: none"> <li>▶ Farmer-led.</li> <li>▶ Local consumers.</li> <li>▶ No transportation costs for farmers.</li> <li>▶ No storage required.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Irregular and seasonal supply can be hard to secure regular consumers.</li> </ul>

Source: M. Vicovaro, FAO and the authors

## 4.4. Turning loss and waste into by-products and inputs for production or processing

Well-planned and creative management of by-products can turn these into highly valued products, thus avoiding potential waste. The most important tip for managing by-products is to “never stop innovating”.

Similar to main products, by-products need a creative approach to add value and enhance returns. By-products can be used to develop innovative packaging solutions, can be processed into new products, or simply sold to different markets. Understand and situate the adequate markets for by-products, considering they may often be different and may require additional work to organize meetings between farmers, processors, intermediaries and consumers.

If you want to be comprehensive about environmental sustainability, you need to reduce your waste and recycle non-reducible waste. Organic waste is compostable as future farm inputs or usable as an energy source for biogas. Meanwhile, non-organic waste is reusable (e.g. glass bottles), or recyclable into new products.

### TIP 26

#### Manage waste efficiently

- 1. Waste can be reduced through good production or process design and control.** Find out where most waste is generated and seek alternatives that may help to reduce it. Sometimes this involves a systemic and machinery-based change while at other times, it may simply require a behavioural change. Implement the easy or low-cost alternative first and check the results before deciding to invest in more expensive solutions.
- 2. Recycling organic materials through animals.** Many forms of organic waste make good feed for chickens, goats, pigs, fish or earthworms (i.e. vermicomposting). Much organic waste that cannot be eaten by animals can be “eaten” (used as substrate) by mushrooms.
- 3. Recycling organic materials through composting.** This can be just simple composting (open-pit compost) or composting via a biogas digester. Composted materials can be used in the farm production to help close the nutrient cycles or sold to urban gardeners (this could be a good promotional activity for your business).
- 4. Recycling non-compostable materials (paper, glass bottles, plastic bags, etc.) with public garbage services where possible.** An additional business opportunity might be to invest in plastic or glass recycling machines and offer to provide these services to local businesses and/or the government!



CASE BOX

52

### Garbage from the fair becomes fertilizer in the capital (Brazil)

The City of São Mateus, the capital of Espírito Santo state in southwestern Brazil, introduced a plan to collect organic waste from its 900 weekly markets and compost it locally. Annually, landfills will be relieved of roughly 62 000 tons of garbage. The city established four composting plants, each one costing approximately USD 140 per month to operate. This is an amount equivalent to the City Hall’s expense for burying garbage collected from markets in the landfill. These plants offer various

waste collection and treatment solutions and sell their composted materials to small farmers. In the process, trash production is reduced, the life of landfills is prolonged, and clean-up costs for markets are diminished by about 30 percent. While these savings at the Ursa Minor street market are due to labour reduction, two out of their eight street cleaners have been retrained as environmental agents who accompany garbage collection, its transportation to the composting plant, and its repositioning into compost logs (i.e., organic waste is mixed with sawdust to become compost).

Source: José Antonio da Silva Marfil, Ecovida, Brazil



## 5. USING THE LOGISTICS PLAN TO MEET STANDARDS

### 5.1. Traceability

Traceability is a process that uses documentation and product-labelling to enable end-users to determine the product's pathway from the farm. It is usually a requirement for obtaining food safety and sustainability certification. A traceability system helps to identify the origin of food safety outbreaks and is needed to implement product recalls.

CASE BOX

53

#### Traceability supports risk prevention (Thailand)

In managing flows along the supply chain, from field to consumer, there are risks tied to contamination and quality loss. In one case, many years ago, with Green Net Co-operative, chemical residues were detected during a rice inspection.

Thanks to an established traceability system, the cooperative determined that the contamination was caused by an unclean truck bed that had moved paddy rice. Accordingly, a new step was introduced in order to validate and verify truck cleanliness prior to transport.

Source: Michael Commons, Earthnet Foundation, Thailand



©INRAE/Y. Chiffoleau



### Traceability through simple colour-coded distinction and identification (Tanzania)

The Wakulima Tea Company (WATCO) established a digital weighing system with a programme designed to separate the Rainforest Alliance certified and non-certified farmers at the village collection points. Each farmer is assigned a number with the prefixes 00=non-certified and 01=certified. After weighing, the certified leaf is loaded in the green or other colour bags while the non-certified is loaded in yellow bags. During transportation, non-certified bags are loaded in the lower rack of the vehicle and the certified ones are loaded in the upper rack. Off-loading in the factory begins with the certified leaf (the upper rack) and ends with the non-certified bags. Therefore, the latter are the last ones to be put into respectively labelled (and numbered) withering troughs. During processing, they begin with certified teas until they finish. Then, they thoroughly clean the processing area and wait 45 minutes before they start processing non-certified teas. This separation of certified and non-certified tea is fundamental to the way in which the standard incentivizes the adoption of



sustainable practices. Essentially, those farmers whose tea has been placed in yellow bags have questioned their division, as the bright colour is noticed by everyone at the collection point. Also, different prices are ascribed to the different colour bags, encouraging the non-certified farmers to ask how they can become certified, in order to lessen the sentiment of exclusion.

*Source: Allison Loconto, INRAE and Emmanuel Simbua, TRIT, Tanzania*

## 5.2. Reduction of contamination risk

There is a risk of food contamination across the entire value chain. The risk is typically low on sustainable farms, given their use of good practices. However, this risk is proportionately higher outside the farm, when the products travel longer distances to reach consumers. All actors across the food chain must ensure that such contamination does not occur. In distant markets, these good practices are enforced through a process such as a Transaction Certificate paper trail, which traces products as they move from actor to actor. This paper trail is then checked by a third-party who tests the product to

identify toxins or bacteria. However, on a practical basis, each lot of goods cannot be inspected due to the sheer volume of transactions which incurs costs and may result in a higher final consumer price.

Other methods are worthy of exploration. Once a guarantee system confirms the sustainability of the produce's source, the final product may be tested for residue (i.e. market surveillance), though this is generally costly. If there is a high level of trust among the actors involved in the initiative (mainly producers and consumers), the testing cost could be reduced by randomizing test samples in a participatory manner and sharing costs among the initiative's members.

CASE BOX

55

**Participatory tests for contamination (India)**

In India, in various parts of the BhoomiKA campaign and the Delhi Organic Farmers' Market, end-consumers are invited to periodically select random samples of fruits, vegetables and other grains, while a lab representative simultaneously selects a sample. All samples are placed into sealed bags and the test report is voluntarily made public. Including such a transparency mechanism welcomes comments and suggestions by all actors for improving transparency while avoiding high compliance costs. End-consumers are also invited to partake in the PGS used to certify

the farms, and some consumers also visit the farms to build further trust. To date, residue has not been found in the testing protocol. In case it is detected, actors are responsible for making these reports public, for taking corrective measures, and for reimbursing consumers. If a producer were to incur a loss, a simple apology sometimes goes a long way in maintaining transparency and trust. Such models might also be explored for long supply chains to reduce contamination risks. However, as a general rule, people tend to trust those they know more than unfamiliar companies.

Source: Ashish Gupta, Jaivik Haat





### 5.3. Food safety concerns and regulations

Although food safety regulations govern all systems, in a sustainable food system, careful measures are needed to ensure that contamination via conventional foods does not occur. From production to consumption, regulatory guidelines specify the rules of physical food segregation. However, safety regulations evolve over time, so it is important to remain updated.

CASE BOX

56

#### Participation in food safety regulation (India)

A good way to keep producers and consumers informed is to ensure their representation in participatory regulatory revision processes. In India, the Food Safety and Standards Authority of India (FSSAI) invites representatives from various civil society organizations (CSOs) to revise the norms of organic regulation. Through this procedure, regulation drafts were sent and CSOs had multiple discussions with the regulator. Many significant changes were accepted in the process, such as the recognition of Participatory Guarantee Systems (PGS) as a valid form of certification, the harmonization of various compliance mechanisms under a

unified regulation for organic food, and the creation of an official logo “Jaivik Bharat”. The regulator also launched a portal called “India Organic Database Integrity Portal” for consumers to trace food from the certifiers (both third-party and PGS). The regulation also includes some key elements intended to increase the competitiveness of local producers:

1. Small-scale farmers who sell directly to consumers were exempted from the regulation and can still sell their products as “organic” in direct sales.
2. Food import regulations were tightened to ensure that imported, processed food is not sold on Indian markets if it is available from local producers.

*Source: Ashish Gupta, Jaivik Haat*

#### TIP 27 Manage logistics

- ▶ Timing is key – being punctual and showing up in the right place at the right time can save money, reduce waste and ensure quality!
- ▶ Processing products on-farm or in local collection/storage facilities can increase producers’ revenue and reduce transport costs.
- ▶ Traceability is fundamental to ensuring that your food is safe to eat, but it doesn’t have to be complex. It is essentially about documenting who delivered what and when.
- ▶ Even in logistics, sharing responsibilities can help strengthen trust between producers and consumers, helping to make the systems sustainable in the long-term.





# 7

# PACKAGING FOR SUSTAINABILITY





PARTNERS	FORMALIZING	FINANCE	GUARANTEES	PACKAGING	LOGISTICS	INPUTS	KNOWLEDGE	PRICE	MARKETS	CONSUMERS
----------	-------------	---------	------------	-----------	-----------	--------	-----------	-------	---------	-----------



## 1. WHY IS THIS IMPORTANT?

In a sustainable food system, packaging has two main functions:

1. preserving your product; and
2. communicating its value to consumers.

These two functions generate more value for both producers and consumers since packaging can provide a recognizable brand. Consistent packaging provides stability over time, insofar as consumers will learn to identify the initiative's products without wasting time reading labels or searching through similar-looking products.

CASE BOX

57

### Reduce, reuse, recycle (China)

"Reduce, reuse, recycle" are the three messages in Shared Harvest Farm's packaging strategy. Shared Harvest is a CSA farm with about 800 member-families in Beijing. They deliver foods door-to-door each week. Firstly, for most of their products like vegetables, they only use straw to bunch them together and very few plastic bags. Secondly, they work with a local logistics company that collects boxes and other packaging materials to return them back to the farm for reuse. At the same time, they promote the benefits of reducing unsustainable packaging to their consumers via social media and use recyclable materials whenever possible.

Source: Shi Yan, Shared Harvest






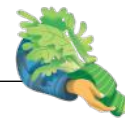
## 2. HOW TO DETERMINE THE PACKAGING FOR YOUR PRODUCTS?

When you are deciding how to package your product sustainably, there are two main issues to consider:

1. The perishability of the product you want to sell and the purpose of the package, i.e. to sell the product to final consumers or to transport the product to another processing plant or sales point.
2. The material that provides sustainable packaging solutions. When dealing with packaging materials, it is also important to keep environmental sustainability in mind. To do so, you can explore two strategies: biodegradable packaging materials (e.g. natural fibre packs), or reusable or entirely recyclable materials (e.g. glass). Plastic packaging should be avoided.





Table 8 Examples of different packaging options according to different product characteristics

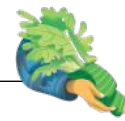
<b>Product</b>	Fresh fruits and vegetables	
<b>Product perishability</b>	High perishability	
<b>Purpose</b>	Sale to individual consumers	
<b>Type of pack</b>	<b>Example</b>	
No packaging	In many sustainable initiatives, consumers can pick fresh produce directly from the farm. Woven baskets are used and returned upon delivery. In many cities worldwide, an emergent consumer trend is to bring one's own packaging (such as a reused glass bottle for olive oil or wine).	
Bioplastic	Some countries have begun to pass laws that require retail outlets to hand out bags made out of bioplastic to consumers. Some stores have also begun to charge customers for these as a means of discouraging their use. Typically, these bags cannot support as much weight as the old plastic bags, and some kinds have a pungent odor that can be absorbed by the produce.	
Paper bags	Fruits and vegetables can be packed in small-to-medium paper bags with branded labels and information about the product.	




<b>Product</b>	Fresh fruits and vegetables
<b>Product perishability</b>	High perishability
<b>Purpose</b>	Transportation to sales or processing points
<b>Type of pack</b>	<b>Example</b>
Cardboard for strawberries	<p>For highly perishable produce such as strawberries, small cardboard boxes can help reduce the use of plastic. They also tend to absorb moisture, so it is best to line them with leaves. In the case of strawberries, this helps to preserve the product longer and avoids spoilage. For organically grown strawberries, the leaves of the same strawberry plantation are used. Yet, in conventional production, this method is forbidden.</p> 
Woven baskets	<p>The packages/baskets are biodegradable, easily recyclable, and extremely cheap.</p> <p>Products presented in this way are aesthetically attractive to consumers.</p> 
Stackable crates	<p>This type of crate is reusable, maximizes available space, and prevents bruising during transport. Some brands are made from sturdy bioplastics (e.g. corn starch).</p> 



<b>Product</b>	Roots and bulbs	
<b>Product perishability</b>	Moderate perishability	
<b>Purpose</b>	Sale to individual consumers	
<b>Type of pack</b>	<b>Example</b>	
Paper bags	Unwashed and weighed roots/bulbs packed in bags with branded labels and information about the product.	 <p>© J. Matovu</p>
Small reusable jute or burlap bags	Jute bags are eco-friendly alternatives to plastic shopping bags, made of sturdy, durable, washable and reusable material. They can be customized to match your initiative's logo or slogan, thus making them unique to your business.	 <p>© A. Jimenez</p>
Fibre nets	Made from natural fibre, 100 percent biodegradable nets keep vegetables fresh over an extended period of time owing to their moisture-regulating and breathable properties. In addition, they are conveniently disposable in a home compost.	 <p>© A. Locanto</p>
<b>Purpose</b>	Transportation to selling or processing point	
<b>Type of pack</b>	<b>Example</b>	
Big jute or burlap bags	Volumes for these market outlets are larger, so big jute bags are suitable. Make sure that you have the right bag sizes for different markets (some require 40 kg, others ask for 50 lbs, etc.) and that you know how to close them properly (by sewing them with a string or heat-sealing them).	 <p>© A. Locanto</p>



<b>Product</b>	Liquids and jams
<b>Product perishability</b>	Medium to low perishability
<b>Purpose</b>	Sale to individual consumers
<b>Type of pack</b>	<b>Example</b>
Glass bottles and jars	<p>The glass packaging for Yacon syrup by producers in Sumapaz, Colombia, preserves the product's nutritional properties. Glass is a suitable packaging solution because it adheres to hygienic standards and offers a clean aesthetic.</p> 

CASE BOX

58

**Packaging in an organic artisanal fisheries project (Thailand)**

The Organic Artisan Fisheries Project, under Earth Net Foundation, aims to connect small-scale traditional fisherfolk abiding by sustainable practice in different provinces of southern Thailand to consumers in Bangkok. With quantities far too small for investing in a refrigerator truck, the fish were packaged in reusable insulated foam boxes to

preserve their quality and freshness during transport. While there are many logistical services, the collective was not willing to transport seafood alongside other cargo. Fortunately, some public tour buses run regularly to and from Bangkok to other locations and agreed to transport the foam boxes in their cargo containers, to be picked up from the bus station and transported to the market by the Project staff.

Source: Michael Commons, Earthnet Foundation

CASE BOX

59

**Natural fibre packs for home delivery in FreshVeggies (Uganda)**

In the FreshVeggies delivery scheme, baskets are made from non-dyed palm leaves and dried banana fibre and hand-woven in multiple ply to ensure basket strength and durability. Being locally sourced from a women's initiative, the baskets support grassroots household incomes and the sustainable use of

wetlands (the palms grow in marshy/wetlands). These natural baskets are attractive, reusable, safe for carrying fresh vegetables and other food stuffs, affordable and environmentally friendly. Moreover, they preserve freshness, allowing for the natural evapotranspiration of vegetables. Plastic bags, on the other hand, suffocate produce and reduce their shelf-life, have negatively impact the environment throughout their lifecycle.

Source: Julie Matovu, FreshVeggies Ltd., Uganda



### 3. DESIGNING THE RIGHT PACKAGES

#### 3.1. The design

Packaging design acts as the product’s “face” and should stand out compared to other products in the same category. Moreover, it displays relevant information and product characteristics that make the product more attractive.

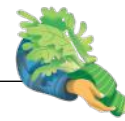
Packaging is also a way to communicate your initiative’s values and those of your products (ecological, innovative, solidarity economies, handmade, locally produced, etc.) to consumers.

Remember that design is essential for developing products and generating value.

**TIP 28**  
Develop an attractive design

1. Think about product ergonomics (easy/difficult to open, easy to handle, easy to carry, has the right weight/size ratio, etc.).
2. Speak directly with your consumers throughout the design phase. Think about how your packaging embodies the main visual message you want to communicate (healthiness, locally produced, eco-friendly, etc.) and the ways to do so (colour/pictures/text/ relation among the different elements of the pack, etc.)





CASE BOX

60

### How to design an original, attractive package? (Colombia)

In the case of Ancestrales chips, made from indigenous potato varieties, Familia de la Tierra began to develop their product by identifying the main concept they wanted to share with customers – to promote the preservation of the Páramo ecosystem and the traditional peasant culture.

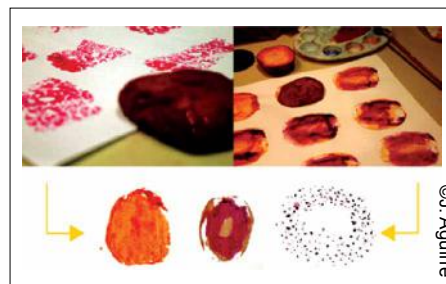
Ancestrales (ancestral) was developed as a brand name that captures these values.



© J. Aguirre



© O. Nieto



© J. Aguirre

Thereafter, with the help of a design team, the packaging was developed. Potato textures were reproduced through watercolours, then digitalized and incorporated in the final design.

In the last step, the brand logo was finalized and all elements were put together to complete the product package.

Source: Oscar Nieto, FdT



© O. Nieto

## 3.2. Size

Package size is also fundamental to ensure your products' attractiveness, ergonomics and sustainable consumption (i.e. reduction of food waste, nutritionally appropriate serving size). Consider the end-consumer to determine the appropriate size. For example, if the product is intended for children (or for an individual consumer rather than a family), a small size is preferred to avoid waste.

Table 9 Examples of different package sizes for different consumers

Product	Targeted consumers (and market outlet)	Size
Fresh Sugarcane	Individual consumers (Retailer grocery, open food market outlets)	Bundles of 10-12 whole sugarcane plants tied with sisal/fibre strings.
	Children (Farmers' markets and on-farm sales)	Single, cut stems.
	Families (Box schemes)	Peeled, weighed in kilograms (e.g., 0.5 kg, 4 kg), and packed in a paper bag lined with a food grade polyethylene bag.

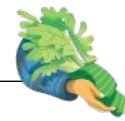
## 3.3. The processing of packaging material

Significant investments are often required in the equipment needed for packaging products as well as for developing the packaging materials. Specific machines are required for each process, as well as qualified personnel who is familiar with their use. Quite often, the cost of packaging is one of the main reasons why small farmers prefer not to do it themselves. However, there are a lot of artisanal techniques for processing, storing and packaging products (e.g. home-canning of jams) and there is a growing tendency to use “down-sizing” technology that offers new possibilities. So, you can either decide to develop an attractive, simple package or outsource processing to a specialized company.

### TIP 29

#### Develop attractive, simple packaging

Attractive packaging doesn't necessarily require a large investment. With a (colour) printer and a bit of attention to design, you can create a visually appealing brand and provide all the necessary information. For products with a common size and package, such as vegetable seed packets, it may be worthwhile to design one standard printed package, and affix small sticker labels to describe variety, weight, and other specific information. White (and coloured) sticker label sheets in A4 printer size are easily found. Alternatively, recycled paper can be used. This is a far more feasible option until larger volumes make specialized printing worthwhile. Neat handwriting or the use of a rubber stamp trademark can add character to a product and promote its handcrafted nature.



CASE BOX

61

### Outsourcing the printing (Colombia)

To print and prepare the packages for “Ancestrales” chips, Familia de la Tierra signed a contract with a local private company. The company proposed to print a minimum of 48 000 plastic bags in order to create the design template. However, following negotiation, the four different packs (see image) were fitted into in a single printing sheet, thus obtaining 12 000 packs for each type of potato chip. It is estimated that packaging costs can range from COP 200 to COP 105 per bag (equivalent to about USD 0.03), thus saving a significant amount of money. For “Ancestrales”, an initial sum of USD 2 400



©Familia de la Tierra

was invested for designing the templates, for cutting moulds and for printing. The second printing cycle cost approximately USD 1 700.

Source: Oscar Nieto, FdT



©A.L. Loconto

## 4. HOW CAN YOU LABEL YOUR PACKAGES?

Images and written messages displayed on your packages serve two purposes: to communicate legally required information about the product as well as its values and qualities.

### 4.1. The legal aspects of packaging

Though packaging regulations differ from country to another, the following information is typically required: the product's name, an ingredient list, weight, nutritional values, producer or company contact information, the place of origin, lot number, date of production and expiration, preservation guidelines, and instructions for use.

CASE BOX

58

#### Mandatory labelling information (Colombia)

The information to include on product labels is specified in national labelling laws. In Colombia, the following information is mandatory: 1) nutritional properties; and 2) ingredients listed from the largest to the smallest quantity. Accessing this information, especially about nutritional values, is not always an easy task for small farmers. The most accurate way to obtain this kind of information is to get your products tested in an accredited laboratory. If this is not a feasible option, copies of food composition tables can be obtained from national food safety and nutrition authorities. Some web tools can also create nutritional value labels for products based on standard recipes. Before using these, it is best to validate one's values. Below are some useful tools:

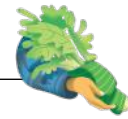
- ▶ **International food composition table/database directory (INFOOD)** contains all of the official nutritional composition

tables for measured food products and has been constantly updated since 1988. There are links to regional databases that have information about foods that are specific to the regions.

<http://www.fao.org/infoods/infoods/tables-and-databases/en>

- ▶ **Wolfram alpha** is an example of a free tool where, by entering your product, you obtain its nutritional values, even if the values provided are for “standard products” and differences may exist with these values, according to the specific characteristics of the product. <https://www.wolframalpha.com/examples/society-and-culture/food-and-nutrition>
- ▶ **Recipal** is a tool where, for a small fee, you can obtain the nutritional values of your product/recipes, as well as helpful guidelines for designing your own label. <https://www.recipal.com>

Source: Orcar Nieto, Familia de la Tierra, Colombia



## 4.2. The marketing aspects of packaging

You can include additional non-mandatory information on the package to make it more attractive for consumers. This may include:

- ▶ environmental and/or social labels that are awarded to farmers who abide by specific standards for production or trade (e.g. organic, Fairtrade, non-GMO verified) – these are easily recognized by many consumers who equate them with sustainability and ethical trade;
- ▶ your brand name, which helps consumers distinguish your products from your competitors’;
- ▶ claims about your product’s specific nutritional values (for example: low- or no-fat, high in fibre, low or no sugar, no trans-fat, etc.);
- ▶ claims about your product’s health benefits (e.g. “Yacón helps in regulating blood sugar levels which is good for treating diabetes”). *Warning* : Some countries strictly regulate the health claims made on products, so verify your country’s rules and those of the country to which you want to export (e.g. the EU has very strict labelling laws on health claims); and/or
- ▶ a personal narrative about who you are, how you live, how you grow or produce the product – the text is usually accompanied by a picture of the farmer or producer (by sharing the story behind the product, the consumer can feel like they know you).

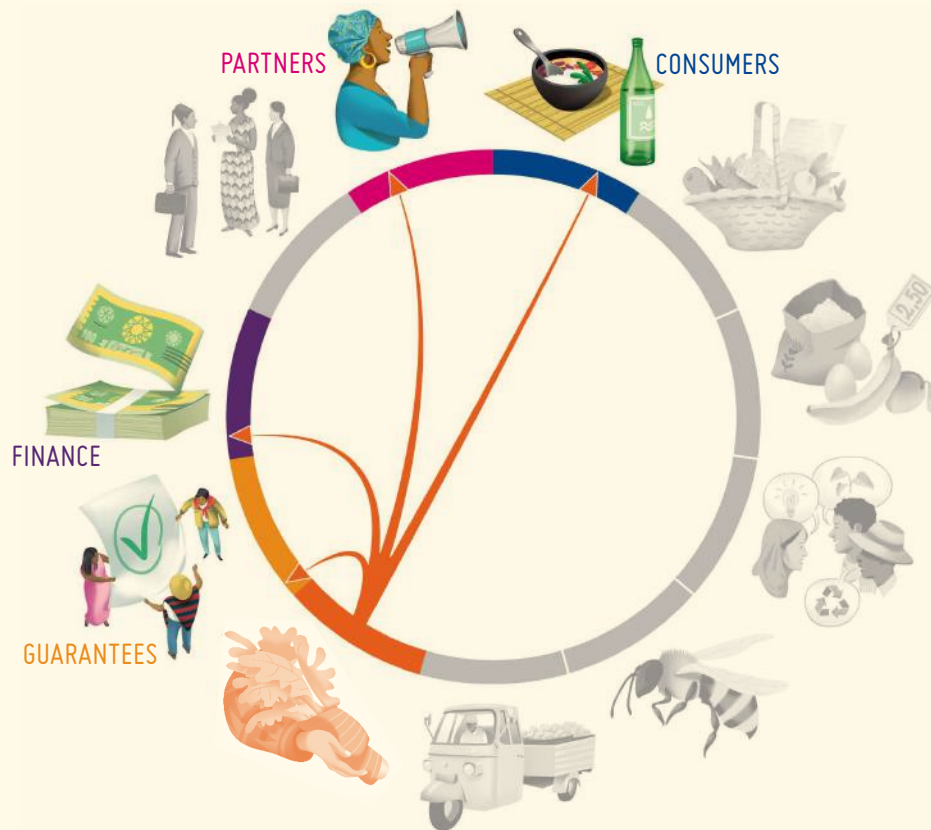
Be very careful with the marketing claims that you make on your products, as some of these are regulated by food laws. Claims about health benefits tend to be very strictly regulated and you can be penalized for declaring false statements.

### TIP 30

#### Package sustainable products that sell

- ▶ While packaging plays an important role in product conservation, it is also very important for value communication.
- ▶ To best satisfy the needs of intermediaries and consumers, different forms of packaging at different stages in the supply chain can be used. Some types of packaging materials are even reusable.
- ▶ Adopting environmentally sustainable packaging can reduce costs (particularly if you are using recycled materials), lessen environmental impact and waste, and be aesthetically pleasing.
- ▶ The space for labels on a packaged product is limited – choose what you communicate wisely!

# THE LEARNING ADVENTURE, WHERE TO NEXT?



- ▶ Want to know which values to include on your package? Go to **Chapter 1: Attracting consumers and keeping them engaged.**
- ▶ Are you thinking of collaborating with a professional print shop to design your packaging? Visit **Chapter 11: Bringing in partners and advocates.**
- ▶ Do you wish to invest in processing and packaging technology but don't have sufficient funds? Go to **Chapter 9: Innovative finance** to explore some ideas.
- ▶ Do you want to include sustainability labels like "organic" on your package? First, ensure that you can guarantee that quality standard... **Chapter 8: Guarantees for sustainability** will tell you more about this.

**Or you might want to read another chapter... you know best!**

# 8

# GUARANTEES FOR SUSTAINABILITY









## 1. WHY IS THIS IMPORTANT?

Given that sustainable agriculture is not practiced by all producers, ways of differentiating between them is fundamental.

Producers, intermediaries and consumers use a guarantee system to validate that the food exchanged is sustainably produced.

## 2. WHAT IS A GUARANTEE?

A **guarantee** is a promise that something has been done and will be done. It can be as simple as a verbal promise to abide by sustainable practice (an informal guarantee), or as complex as a formal, third-party certified claim that a product, person, or process abides by certain pre-established standards of sustainability or quality.

A guarantee is necessary for building consumer trust. It ensures consistency in product quality, protects consumers against fraud, and confirms that the product abides by sustainable production practice.

A **guarantee system** is the systematic provision of a guarantee. It usually follows a production standard and written operational rules. Producers or processors are typically granted a certificate that demonstrates their sustainability. There are a variety of ways to ensure that sustainable practices are being followed.

### 2.1. Self-declaration

In this type of guarantee, producers certify themselves. A self-declaration is associated with various degrees of formality. It can be a simple, informal guarantee verbally expressed to consumers, such as the “money-back guarantee” (if consumers are not satisfied with a product, the seller promises to reimburse them). A more formal type of self-declaration consists of completing a written self-assessment form or a pledge submitted to the transparent intermediary or buyer. The benefit of this type of guarantee is that it builds trust between the producers and consumers who meet and communicate regularly. Yet, false reporting is also common and difficult to detect when producers and buyers rarely meet face-to-face.

#### Pros

- + low to no cost;
- + most forms are simple to fill out;
- + no external audits.

#### Cons

- false reporting is common;
- some forms are difficult to fill out;
- on-package labels are typically not permitted.

## 2.2. Actors' audit

In this type of guarantee, also called second-party certification, assessment is implemented by a transparent intermediary or a processor interested in auditing producers. Examples include a processor who audits their farmer's suppliers, or an organization certifying their members, in which case the process is sometimes known as an Internal Control System (ICS).

### Pros

- + low cost;
- + forms are usually filled out by the second party, not by farmers;
- + no external audits;
- + farmers can sometimes own their own certificates;
- + producers can sometimes apply an on-package label.

### Cons

- not all farms are visited;
- false reporting can occur;
- random inspection (by virtue of an ICS) risks abuse and non-compliance
- certificates are often used internally by the buyer or cooperative/association, and cannot be used for other markets

## 2.3. Inspection, certification and accreditation system

This guarantee system, also called third-party certification, is the most formal, as it requires multiple levels of control. The assessment is conducted by an external, government-accredited body with no financial or commercial interests in the evaluated farm or organization.

### Pros

- + it is the only guarantee recognized by public regulation (except for a few countries);
- + export requirement (to access US, EU, Japanese, Chinese, Canadian markets, among others);
- + some certifications are accepted in multiple markets;
- + farmers' cooperatives can use a second-party ICS internally and have their ICS audited by a third-party;
- + producers can usually apply an on-package label.

### Cons

- very costly;
- a lot of documentation is required;
- participation is not allowed;
- no social control;
- certificates are awarded to the group (ICS), NGO or export company, not to individual farmers;
- standards are systematically reviewed and sometimes relaxed to ease the certification process;
- random inspection (by virtue of ICS) risks abuse and non-compliance;
- farmers pay the certifiers directly for the audit (certificates are sometimes bought), creating an inherent conflict of interest.



## 2.4. Hybrid systems

There are multiple systems that “mix” different guarantee forms. For example, self-declaration and third-party certification can be combined, as in the case of certain private-sector commodity roundtables. Farmers fill out forms about their performance and a representative sample of farms is randomly selected to be audited by a third-party certifier. Second and third-party guarantees can also be combined, as in the case of the Rainforest Alliance. In all systems, informal guarantees often play a role.

### Pros

- + These mixed systems are often adopted by private brands, so there are large markets for single tropical commodities (e.g. tea, coffee, palm oil, soy, cocoa).
- + Mixing different guarantee forms can help to avoid fraud that is common in systems relying only one type of guarantee.
- + Mixed systems involve more collaboration, so the possibility of using some reports for more than one guarantee system can reduce producers’ administrative burden.

### Cons

- Some challenges from second party and third-party certification persist, particularly those related to costs and documentation.
- Multiple guarantee forms cultivate a lot of bureaucracy and slow feedback mechanisms.
- Some consumers consider the mixing of guarantees as a corporate strategy to reduce the rigor of third-party audits, understood as the most robust. This can reduce consumer confidence.

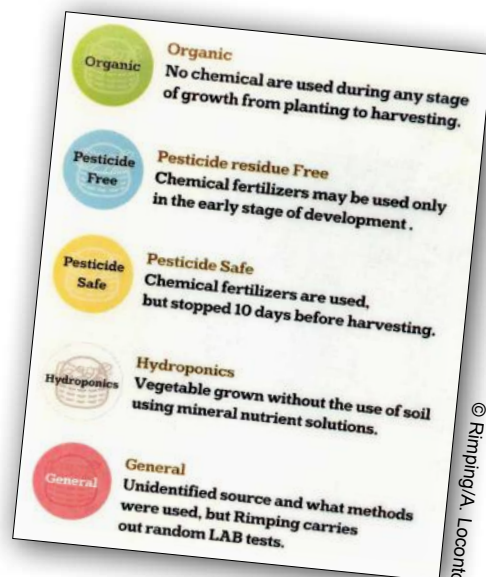
CASE BOX

63

### Rainforest Alliance (Tanzania)

Rainforest Alliance uses both second party and third-party certification to designate its “green frog” label. Farms are assessed yearly by the Rainforest Alliance verification team, and they are audited by an accredited third-party certifier every three years. The Rainforest Alliance second-party audits consist mostly of document audits (to ensure that reporting on improvement plans is being made) as well as some occasional physical visits to the farm to discuss major non-compliances. Every three years, the third-party auditor visits the farm, chooses to renew or revoke the certificate, and sends the report to the Rainforest Alliance. Based on this report and its own audits, the Rainforest Alliance decides if the farm will be certified for the following three-year period.

Source: Allison Loconto, INRAE



© Rimping/A. Loconto

### 2.4.1. Participatory Guarantee System (PGS)

PGSs use elements of both self-declaration and second party certification and are essentially locally focused quality assurance systems that certify producers based on the active participation of farmers, consumers and other local actors. Farmers pledge to follow organic standards, and a group of actors (usually made up of farmers only, or a mix of farmers, consumers and an agronomist) conduct field visits at regular time intervals – they can be monthly, bi-yearly or yearly. A PGS committee is set up with representatives from all stakeholder groups that reviews the report and determines if certification should be granted or not. These groups can then work autonomously to guarantee compliance with private labels, or they can be associated with public agencies to guarantee compliance with national organic standards.

#### Pros

- + low-cost;
- + provides access, information and knowledge-sharing;
- + all actors participate, consumers are engaged in the product guarantee process, which strengthens support for production;
- + provides market access due to a closer contact in shorter supply chains;
- + big intermediaries, hotels, restaurants can understand the processes that producers experience, they tend to become more supportive of the production.
- + supports local market and economies;
- + promotes transparency;
- + promotes farmer empowerment;
- + promotes social control;
- + pre-determined rules for non-compliance
- + Developed according to the conditions and needs of small farmers
- + non-hierarchical certification method

#### Cons

- not recognized by some public regulators;
- PGS likely remain unknown to producers unless an NGO/researcher tells them about it;
- lack of national and international information on PGS;
- time-consuming and requires effort (by producers, consumers and other actors) to develop a truly participatory mechanism;
- considerable financial support needed to support other activities for farmers i.e. sustained training, updates on technologies and developments in global PGS acceptance (when NGO support is limited);
- frequent lack of active consumer participation (unless supported by NGOs or the government).



CASE BOX

64

### Quezon PGS (Philippines)

The Quezon PGS is a multi-actor certification body that guarantees consumers that all products sold at the weekly farmer’s market comply with organic standards. The steps involved in its certification process are:

1. Self-review: the farmer is trained on organic standards, PGS rules and processes prior to submitting an application to a peer reviewer who determines if the farm is qualified for inspection.
2. The peer reviewer conducts a farm inspection and submits a report to the review committee.
3. The committee reviewer evaluates the report and takes a decision:
  - a. if it is approved, the committee forwards the decision to Quezon PGS management committee to issue the certificate.
  - b. If it is rejected, the report returns to the peer reviewer who notifies the farmer and the Quezon PGS management committee. In this case, the group of farmers can make corrections and submit to another peer review visit in six months.
4. The Quezon PGS management committee issues certification.
5. The peer reviewer hands the certification to the farmer.

Source: Carmen Cabling, Quezon PGS, Philippines



## 3. CHOOSING YOUR GUARANTEE SYSTEM

Before choosing the most suitable guarantee system, it's useful to gather information about the certification systems operating in your area in order to make the best decision.

### TIP 31

#### Collect information about guarantee systems in your area

- a. Which initiatives are adopting certification systems for sustainably produced products?
- b. What is the initiative's organizational profile?
- c. Is the initiative legally registered?
- d. How many farming systems or products have been certified?
- e. What are the participation fees?
- f. Are there additional services offered to members through the certification system in place?
- g. What markets are they selling their products in?

To find out where different guarantee systems operate, check out:

- ▶ The ITC Standards Map (<http://www.standardsmap.org>)
- ▶ The Ecolabel Index (<http://www.ecolabelindex.com>)
- ▶ IFOAM PGS Map (<https://pgs.ifoam.bio>)

Once you have collected enough information about which systems already exist, begin to think about the guarantees that correspond to your target markets and determine the cost of each option.

### 3.1. How is trust built in each guarantee system and in which market is this trust most effective?

Markets often define the type of guarantee system used in certification processes. Different markets, and the consumers that comprise them, demand different types of guarantees; this is usually linked to how trust is built within the guarantee system. For example, in neighbourhood markets, self-declarations could suffice, as producers and consumers know each other. Meanwhile, for distant markets, such as export markets, whereby it is impossible for consumers and producers to meet, a PGS may be accepted, and a third-party certification may be required.



Table 10 How is trust built in different guarantee systems?

Which guarantee system?	How is trust built?	Which market?
Self-declaration	Trust relies on direct and repeated interactions between producers and consumers.	Neighbourhood and local markets with direct relations between producers and consumers.
Actors' audit	Trust relies on direct and repeated interactions between the transparent intermediary or processor and consumers.	Local or national markets with direct relations between transparent intermediaries or processors and consumers.
Third-party audit	Trust relies on the independence of the certification body and on the accreditation by public authorities.	National and international markets where consumers have few possibilities to directly meet the operators of sustainable food systems; trust is built via professional certifiers.
Participatory Guarantee Systems	Trust relies on the direct participation of all actors, meaning that consumers trust this system either because they actively participate in the certification process or because they have direct relations with other actors participating in the guarantee system (producers, transparent intermediaries or other consumers).	Local and national markets with direct relations between the actors.
Others?	...	...

CASE BOX

65

**SPAR/SUPERSPAR Supermarkets (Namibia)**

SUPERSPAR, a subsidiary of the Dutch SPAR franchise, is a chain of grocery stores in Namibia. In its Maerua location, SUPERSPAR has introduced “The Health Nut” – a supermarket section that offers a range of organic goods, from fresh produce to processed products and cosmetics.

On their website, SUPERSPAR advertises that *“Our locally produced organic herbs and vegetables are grown under strict regulations of the Namibian Organic Association (NOA) and are therefore*

*accredited organic. Indulge in a variety of fresh vegetables, firm salads or intense herbs.”*

The private NOA standards comprise the only national standards for organic food due to the lack of a public organic regulation body. The NOA standards use a PGS to guarantee their organic quality, showing that it is possible for supermarkets to respect alternative guarantee forms.

Source: Manjo Krige, Namibian Organic Agriculture Movement, [www.weckevoigtsspar.com/in-store/health-nut](http://www.weckevoigtsspar.com/in-store/health-nut)



## 3.2. How much does it cost?

Fees and fee structures vary according to the type of guarantee system sought and the area of operation. While self-declaration and second-party certification are typically inexpensive or not costly at all, third-party certification requires fees. Unfortunately, fees are not regulated, and certifiers are not obliged to publish or advertise them. Determining costs requires a bit of research:

1. First, browse through the websites of the standards organizations to determine which ones are present in your area; and second, check the certifiers’ websites to figure out if their fees have been published;
2. Then, you should contact your local branches to obtain an estimated certification cost. You can shop around and compare fees if there are several certifiers in your area.

Table 11 How do the costs compare across guarantee systems?

Which guarantee system?	What are the fees?	What is the fee structure?
Self-declaration	No fees are required for this certification system.	N.A.
Actors’ audit	No fees or very limited fees are required for this certification system.	The fee structure can vary a lot depending on the auditor. The fee structure in this system can be calculated based on the whole farming system or only for single products.
Third-party audit	Fees are required for this type of certification and can be quite high. There are sometimes special fees for groups of small-scale farmers.	Most third-party certifiers calculate their fees based on the number of commodities to certify on the farm, the number of standards needed (e.g. EU Organic, NOP, and Soil Association can all be assessed during the same audit), the farm size, and the number of expected workdays needed to conduct the certification.
Participatory Guarantee Systems	Fees are agreed upon by the PGS groups. Not all PGS charge a fee.	In PGS, fees are intended to cover the certification of the whole farming system regardless of the number of commodities it produces. If there are fees, they are usually nominal in order to cover the transport costs for the farm visits.
Other	....	.....



### Fairtrade certification (FLOCERT)

FLOCERT, the Fairtrade International certification body, utilizes a user-friendly certification fee calculator on their website. Using a multiple-choice questionnaire, FLOCERT's platform asks the following questions about:

1. your type of organization (i.e. small producer);
2. the type of fee you want to calculate (initial or annual);
3. the type of "grade" your members belong to:
  - a. First grade, i.e. a small producer organization whose members are exclusively individual small farmers.
  - b. Second grade, i.e. a small producer organization whose members are first grade organizations.

- c. Third grade, i.e. a small producer organization whose members are second grade organizations.
4. the number of members in your organization;
5. the number of products you have;
6. the number of processing facilities you own; and
  - a. the number of works in each facility.
7. the number of subcontracted entities you use.

After the final question, FLOCERT instantly provides you with a total fee estimate, available as a downloadable PDF copy divided into costs for application, certification, and additional fees.

*Source: <http://www.flocert.net/fairtrade-services/fairtrade-certification/fees>*

## 3.3. What else is guaranteed?

### 3.3.1. Services

Sometimes, services such as trainings are offered to producers as part of the guarantee system in order to build producers' capacity to implement sustainable agriculture practices.

#### CHECKLIST

##### Questions about services

1. Are orientations and/or trainings included in the guarantee system?
2. Are monitoring and coaching included in the system? If so, how often would this be done (quarterly, every cropping cycle, semi-annually)?
3. Do those responsible for the guarantee system continuously provide updates on new developments in sustainable food systems after the certificates are issued?
4. Are there additional services offered in the guarantee system?

### 3.3.2. Scope and equivalence

Some standards and guarantee systems provide equivalency between national standards, while others operate in more than one country. The guarantee system that you choose to use can dictate the limits of your market depending on its area of coverage. When searching for the optimal guarantee system, ask certifiers about the scope and equivalency of the standard.

### 3.3.3. Complying with the law

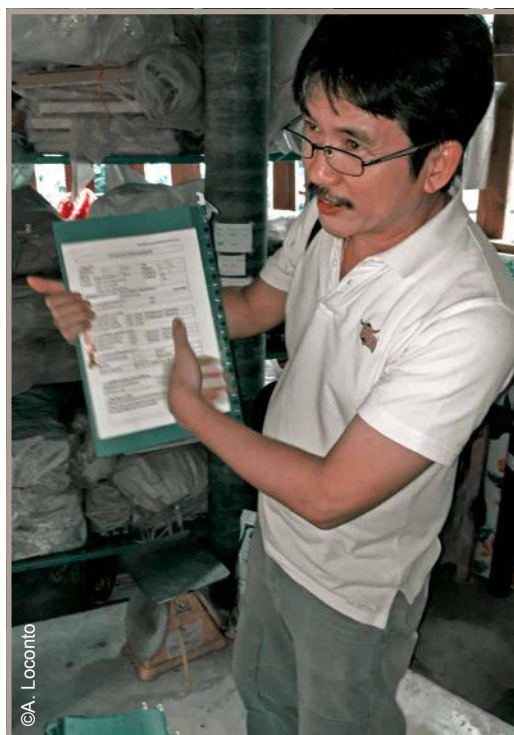
It is important to assure that the guarantee system you want to adopt follows local and national laws governing sustainability.

If you want to check the equivalency of different guarantee systems, visit: [http://www.ifoam.bio/sites/default/files/iroc\\_b\\_equitool\\_2012\\_0.pdf](http://www.ifoam.bio/sites/default/files/iroc_b_equitool_2012_0.pdf)

#### CHECKLIST

##### Legal compliance

1. Are there laws in your country with specific requirements for guarantee systems?
2. Does the chosen system follow the codes and principles of CODEX, IFOAM, ISEAL, ISO or related programmes and bilateral agreements among countries?
3. Are the words (organic/natural/certified/etc.) regulated by the government and if so, what type of guarantee system is required in order to use them?





## 4. HOW TO COMMUNICATE YOUR GUARANTEE?

Given that guarantee systems are established in order to differentiate sustainable producers from unsustainable ones, communication with consumers is crucial. Depending on the guarantee system that you decide to put in place, the process of informing consumers can be verbal, visual or a combination of both.

1. If you are only communicating verbally with, for example, an informal self-certification, some simple techniques should be followed in order to be more effective: use simple and clear messages to describe your sustainable practices.
2. Most guarantee systems allow the use of labels that consumers can immediately associate with a specific certification. If you are using a label, make sure it is displayed on your packages and in written communication.

## 5. HOW CAN YOUR GUARANTEE SYSTEM HELP FARMERS MEET ADDITIONAL STANDARDS?

Whenever possible, guarantee systems simplify administrative matters for producers and transparent intermediaries, and efforts should be made between public and private actors to mutually recognize the guarantees. In addition to sustainability standards, farmers must also meet food safety, public procurement and environmental protection standards. In choosing a guarantee system, this range of standards should be considered.

### TIP 32

#### Simplify and standardize the administrative processes

1. Can your farmers' groups be used as legal co-cooperatives that can be registered for public subsidies or extension services?
2. Can your guarantees be used to collect information on food safety and register the farmers with these authorities?
3. Can you use a PGS certificate to register with the public procurement authorities?
4. Can your guarantee system be used to keep track of ecosystem services or carbon sequestration and register your farmers for these subsidies or markets?

### PGS, food safety registration and public procurement (Bolivia)

In Bolivia, the national “ecological agriculture law” (3525) has authorized a national regulatory scheme for participatory guarantee systems. Each PGS is registered with both municipal offices and with national authorities in order to access local extension services (even for ecological production) and to use the

national organic label. Additionally, all PGS are registered with the food safety authority, which facilitates the release of certificates that authorize PGS farmers to sell to public procurement programmes and to access formal markets countrywide. Though farmers implement their PGS within their communities, they can access national markets.

*Source: Pilar Santacoloma, FAO*

## 6. WHAT IF NOBODY ASKS FOR A GUARANTEE?

Some consumers are simply not interested in procuring sustainable food. If you are already producing sustainably, you may want to prepare for the eventual possibility that consumers ask. Start by developing a direct sales component in your marketing strategy, so that you begin to build an informal guarantee system with a sub-group of your consumers.

### TIP 33

#### Start a guarantee system (when no one is asking for it yet)

The concerned producer group can:

- ▶ publish a newsletter to inform and communicate with people about relevant farm issues, such as safety, health and supply guarantee.
- ▶ share recipes and communicate topics of common interest and social events to attract consumers' interest and build trust.
- ▶ introduce a reasonable refund policy in case consumers are not completely satisfied with the product quality. This system will need to be carefully planned and properly executed with conditions that will discourage any sort of blatant abuse by dishonest consumers.
- ▶ invite consumers to play a more important role in the farm – through visits, collective development projects or even through selling membership shares in the harvest (e.g. building a CSA model).



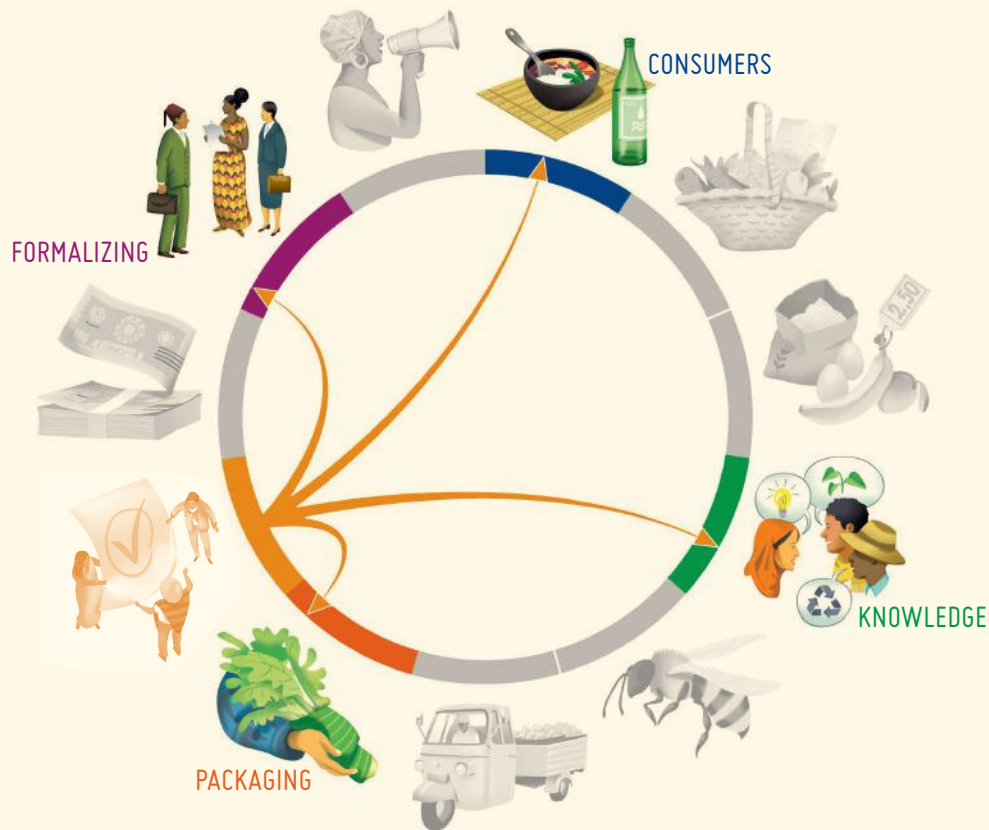
- ▶ proactively declare their sustainable practices, by displaying them at collection points, on delivery vans or on the packages to raise consumer awareness, trust and confidence in the farm. This is, in fact, an alternative guarantee form.
- ▶ choose to be more transparent. The voluntary release of information about on-farm practices (the good and the bad) builds trust.
- ▶ creating alliances with other farms using similar practices builds trust among farmers and enables the diversification of sellable products. In the early stages, it is important to organize farm visits to learn about each other's production and marketing practices.

**TIP 34**  
Provide a guarantee

- ▶ Not every market requires the same type of guarantee.
- ▶ When setting up your guarantee system, choose the approach that your core consumers trust the most.
- ▶ Compare fees and fee structures between different certifiers and then measure that against the price your consumers are willing to pay for your products.
- ▶ Be prepared! If your consumers are not demanding a guarantee for sustainability, set up your system anyway. Eventually, someone is bound to ask!



# THE LEARNING ADVENTURE, WHERE TO NEXT?



- ▶ Do you want to learn more about how labels can help better communicate your product's values? Read **Chapter 7: Packaging for sustainability**.
- ▶ Do you want to improve your communication with consumers? Try some of the tricks outlined in **Chapter 1: Attracting consumers and keeping them engaged**.
- ▶ Do you want to provide extension services in your guarantee system? Visit **Chapter 4: Sharing and co-creating knowledge for sustainable production** to get some ideas on how to set one up.
- ▶ Do you want to make your guarantee system more formalized but are not sure what the right organizational model is? Adventure on to **Chapter 10: Formalizing your collective work**.

... or move on to another chapter of your choice...

# GETTING ORGANIZED

One of the most challenging aspects of building sustainable food systems or transitioning from a conventional system to a sustainable one is getting organized. Change can't happen by itself, neither is it the responsibility of individuals. Change is a collective endeavour, aimed at finding new ways to collaborate that value sustainable practices.

In the following group of chapters, you will learn about innovative ways to finance collaboration, techniques and reasons for maintaining the right balance among collaborators, ideas for when to partner with others, and when you need to gather more support from the public or from policy-makers.

If you are launching an initiative, or are looking for fresh ideas, you might want to start your adventure here.

INNOVATIVE FINANCING



FORMALIZING YOUR COLLECTIVE WORK



BRINGING IN PARTNERS AND ADVOCATES







# 9

# INNOVATIVE FINANCE







## 1. WHY IS THIS IMPORTANT?

Ensuring the financial stability of innovative collaborations poses a consistent challenge to many actors in sustainable food systems. The business models and the scale are often considered too risky or too small to qualify for commercial bank loans and too large to be considered for microfinance programmes.

For some initiatives, the ability to create financial independence from commercial banks is included in their vision of a sustainable food system.

## 2. WHAT ARE THE OPTIONS?

An initiative needs finance for three main reasons:

1. **Keeping the doors open:** There should be enough money to cover the operating costs (i.e. staff, electricity, transport, office space) that enable the initiative to connect sustainable consumers and producers.
2. **Investments:** the innovations, improvements, refurbishments, replacements, expansions and other activities that go beyond the initiative's normal running costs.
3. **Services:** Producers, consumers, civil servants and other food system actors need a number of services that can facilitate the transition to sustainability (i.e. education, training, events, technical assistance, guarantee systems, common spaces, etc.). Some of these services may charge a fee, but many others will require external finance. Generally, this finance can be attained via two sources of income: **internal and external.**



## 2.1. Internal funds

Internal funds are the result of pooled investments made by different actors (e.g. farmers, CSA consumers, shareholders) who share the risks of your initiative. This money is not typically reimbursed. Profit generated from the sale of products and services is the main form of internal finance, though members and shareholders may also benefit from any profit that is not reinvested in the initiative.

### 2.1.1. Product sales

It is common for initiatives to self-finance their operations by re-investing the business's income (sale of products and services) to pay for its operating costs. Using revenue in the form of cash or in kind (e.g. one sack of rice or coffee from farmer members) is a stable financial source that should be the basis of any initiative.

#### TIP 35

##### Reinvest money from product sales

- ▶ Maintain a balance sheet with a column for revenue and expenditures. Begin by using your product sales to pay for your operating expenses.
- ▶ If you have more revenue than expenses, think about the investments that can increase product sales and allow the initiative to grow:
  - ▶ Do you want to purchase processing equipment to add more value to your products?
  - ▶ Do you need a truck to transport goods?
  - ▶ Do you need collection points and storage facilities to expand the reach of your production network?
  - ▶ Can you offer capacity building or training for the producers, consumers or staff of the initiative?
  - ▶ How about participating in conferences or trade fairs to expand your markets, networks and knowledge? You'll need a travel budget for that.
  - ▶ Can you hire some people to specialize in the services that you offer to producers and consumers?
  - ▶ Do you need office space, information technology (IT) and supplies?
  - ▶ Can you begin to save some of the funds in an interest-bearing account for longer periods of time in order to build up a rainy-day reserve?
  - ▶ Do you need a full-time selling space? Having a permanent store front can help consumers know where to find you.



### 2.1.2. Producer member savings groups

Many initiatives are launched via a collaboration of producers who have recently gathered together to pool greater quantities of their products. A common cooperative practice is to make small “capital” contributions that are deposited into a collectively managed mutual fund. During general assemblies, members then vote on how to use the savings. Often, they are spent on individual members’ needs, though they can also be used for larger investments intended to increase individual or collective capacities. Savings are also important for securing an emergency fund during more difficult times.

CASE BOX

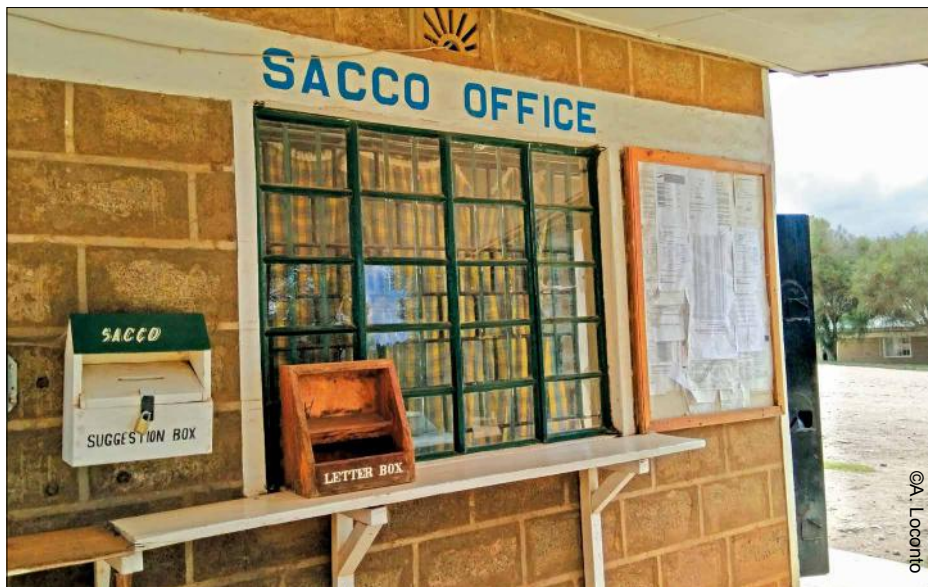
68

#### Community savings and loan groups (Kenya)

Access to finance is a key driver for small-scale farmers’ entrepreneurial development. Over the years, community savings and loan schemes have been adopted to enhance group capacity to access loans and savings. This results in a collective capacity to increase agricultural investments and income from small businesses. PELUM Kenya has been

engaged in promoting the upscaling of this viable farmer model for enterprise development—some examples include farmer groups such as Kamicha Kabondo Farmers Group and Ti-Kwenda Kwitu Self-Help Group. In these collectives, savings are used as a group investment to build commercial capacity rather than as an individual rotating fund.

Source: Rosinah Mbenya, PELUM Kenya



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### 2.1.3. Consumer investment

Convincing consumers to invest in the production of goods and services is a recent approach for creating local shareholders in an initiative. As a common practice used in cooperative models to strengthen producer-consumer commitment, members will pay an annual fee which is used by the initiative to cover operating costs. In CSA initiatives, consumers purchase a farm share at the beginning of the growing season in order to provide the money needed for production.

**There are many options for consumer contributions — be creative!**

CASE BOX

69

#### Crowdfunding (China)

Shared Harvest Farm used a crowdfunding mechanism based on personal relationships. During the early stages of the project, the team calculated their financial needs and determined that 150 members were needed in the first year, in addition to about two months' worth of cash flow (approximately equivalent to CNY 300 000). Shi Yan gathered ten people she knew personally who were willing to invest

in the first five years of operation. As the estimated price for vegetables for one year was about CNY 6 000 per family (USD 940), a five-year payment advance was equivalent to CNY 30 000 (USD 4 700). This funding source was fundamental for Shared Harvest Farm because all these “investors” expected to eat organic vegetables for five years and were dedicated to supporting a new, sustainable initiative

*Source: Shi Yan, Shared Harvest, China*

CASE BOX

70

#### Green checks from consumers (Brazil)

Association of Consumers of Agroecological Products of Paraná (ACOPA), part of the Ecovida Participatory Certification Network, connects agroecological consumers and farmers. Through farmer field visits, the association aims to organize consumers and incentivize knowledge and experience-sharing between consumers and

producers. ACOPA also created a Green Check mechanism that assists farmers with consumer-based investments. Through this mechanism, a group of consumers pay a quota to finance farmers' activities. Farmers receiving the Green Check must reimburse an equivalent amount with their products. This mechanism fosters solidarity and trust relations.

*Source: José Antonio da Silva Marfil, Ecovida*



### 2.1.4. Community enterprise shareholding/ Member loans

Community enterprises, which might be legally registered cooperatives or farmers' groups, can build capital from their members as shareholders. Members can increase their shares over time, and profits are distributed through annual dividends. This collective ownership provides both an important capital base and often equates to greater commitment and participation by members in order to overcome difficult periods.

Seasonal harvest purchases (such as rice or coffee) require large amounts of capital for stocking the raw material. In the Nature Care Club, in Kut Chum, Yasothorn, Thailand, members save money at a much better interest rate than that offered by banks, while the farmer enterprise pays much less in interest than it would for a bank loan. This saves the enterprise a lot of money while strengthening the community's wealth.

#### TIP 36

##### Use participatory budgeting

Participatory budgeting is born out of public sector exercises to try to include citizens in decisions about how to spend public funds. However, the participatory approach can easily be applied to private sustainability initiatives with no dominant organizational structure. Here are a number of tips on how to carry out a participatory budgeting exercise:

1. **Avoid too many details:** While you may have detailed numbers available, try to use something simpler for your participatory process. The main purpose is to understand priorities, not how many cents are allocated. So, begin with whole, even numbers that are rounded down from your actual budget and use these to discuss possibilities.
2. **Open debate only on budget items that you are willing to change:** Some parts of your budget are simply inflexible, namely operational costs (e.g. electricity bills, rent, etc.). You should focus the discussion on the possible investments to make and any increases/decreases in staffing costs. Make the full budget accessible to ensure transparency and trust within your initiative.
3. **Be prepared to explain the real consequences of specific budget decisions:** Acknowledge the potential consequences of budget cuts (i.e. reducing the transport budget by 20 percent means that the number of deliveries will have to be reduced). The same applies for budget increases or investments. Specify the types of benefits that a new office space can offer in the short- and long-run. If you are asking people to participate in a meaningful way, the consequences of their choices need to be clearly understood.
4. **Try to link online and physical discussions about the budget:** Before you discuss budgets within your general assemblies or other face-to-face meetings, online participatory budgeting tools can be used to begin this process. Online tools can avoid a sentiment of exclusion among members who are unable to attend. Always use ICT tools that are appropriate for your communities. If a large portion of your producers and consumers do not have access to the Internet, then an online tool is redundant and ineffective.



## 2.2. External funds

These come from sources who do not have a stake in the initiative and who are considered as “creditors”, i.e. people and organizations that giving or lend money. Depending on the type of external source, you may need to repay any money if it is loaned to you (grants do not need to be reimbursed).

### 2.2.1. Public funds

On a global scale, governments typically provide citizens with funds to either subsidize certain types of agricultural production or to stimulate local economies. Large subsidies are usually managed at the national level by public or private organizations and are not easily accessible to small-scale producers or innovators transitioning to sustainable food systems. However, there usually are hidden public funding sources that are used to finance some activities. Often, these are funds from municipal, sub-national or supra-national levels. To find them, you need time and effort to submit applications, and good public- and private-sector partners!

CASE BOX

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#### Paramparagat Krishi Vikas Yojana (PKVY) scheme by the Ministry of Agriculture (India)

During the last decade, the Government of India has developed innovative schemes to incentivize, promote and fund sustainable agriculture. One such scheme, part of the National Mission on Sustainable Agriculture (NMSA), is called “Paramparagat Krishi Vikas Yojana (PKVY)” which translates to “Traditional Farming Progressive Scheme”. PKVY provides funds for groups of farmers to gather together and partake in the (PGS), supporting them for three years with funds allocated to training, capacity building, purchasing of bio-inputs, soil sample testing, converting land for organic production, and the purchasing of farm tools, among others. The scheme also funds market-building support, such as packaging material,

product branding and labelling, supporting vehicle purchase, and organizing organic fairs for the sale and promotion of produce. As a result, over 200 000 farmers across India and over 100 000 hectares of agricultural land have been included in the PGS system. The market is also being supplied with packaged produce for end-consumers. In the next decade, it is expected that over 1 million farmers and 1 million hectares of land will be directly included in this scheme, given impending government models for organic village cluster development programmes and bio-village incentive schemes. In addition, the Ministry of Rural Development has decided to implement a PGS specifically for smallholder women farmers through its programme Mahila Kisan Sashaktikaran Programme (MKSP).

Source: Ashish Gupta, Jaivik Haat



CASE BOX

72

### Using celebrities to sponsor your initiative (Peru)

Frutos de la Tierra is a collective brand of the National Association of Organic Producers of Peru (ANPE PERU). It was created with the purpose to support organic family farming and promote the biodiversity associated with their agricultural systems. The brand was launched in September 2013 and was sponsored by the world-famous Peruvian chef, Gastón Acurio, a leader in the gastronomy sector, to highlight and acknowledge Peruvian cuisine, organic smallholders, and cultural values. Chef Gastón Acurio is “Frutos de la Tierra”’s main ambassador within the cook-chef alliance promoted by ANPE PERU and APEGA (the Peruvian Gastronomy Society).



Farmers with this collective mark supply the restaurants of Gastón Acurio, participate in the “Mistura” food fair, and represent almost all regions of Peru with more than 200 different organic products. This strategy has helped ANPE Peru to access international cooperation funds and has captured the attention of the Ministry of Agriculture. The funds have been used to improve product marketing, including the creation of an online sales platform.

Source: Patricia Flores, IFOAM Organics International

CONSUMERS

MARKETS

PRICE

KNOWLEDGE

INPUTS

LOGISTICS

PACKAGING

GUARANTEES

FINANCE

FORMALIZING

PARTNERS

## 2.2.2. Accessing non-traditional public sources

The majority of non-traditional public sources are found via “calls for tenders” periodically released at different government levels. There are clear guidelines for the kinds of eligible initiatives, though there is freedom to build consortia, pay for capacity building, and assemble physical structures (e.g. market stands). Each country announces the availability of their funds differently and in most cases, it is important to have positive relationships with local public actors.

CASE BOX

73

### National innovation project funding (Chile)

In 2010, in Chile, the Ministry of Agriculture launched a call for proposals under its “innovation fund”. The Kom Kelluhayin Cooperative responded with a project to link the indigenous farming community with local restaurants and consumers’ groups. Its purpose was to increase the availability of organic quinoa for the development of local tourism and the promotion of traditional Mapuche

cuisine. The funded project enabled Kom Kelluhayin to build a quinoa processing facility that serves as the cooperative’s offices, as a jam-processing facility, and as a storage space for farmers’ other products. It also provided Kom Kelluhayin with the basic funds needed to build local consumer demand. Particularly, they invested in a rental stall for the local tourist market and in developing the Wemapu label for their members’ products.

Source: Gabriel Curilef, Wemapu

CASE BOX

74

### Mobilizing public regional development funds (Croatia)

In 2013, the public institution for development and coordination of Split-Dalmatia Region (RERA SD) developed a pipeline project for small-scale and young farmers to receive public grants. This project combined the development of support infrastructure for farmers and agro-entrepreneurs, a capacity building programme, and technical support (i.e. help in identifying and in filling in the application forms). Given

that Croatia entered the European Union (Member Organization) in July 2013, RERA SD primarily targeted EU funding sources, specifically the European social fund for capacity building, the European regional development fund for support infrastructure and the European Agricultural Fund for Rural Development for farmer’s grants.

Notably, RERA SD, as a regional public organization, used their contacts within the public institutions to provide services for their local farmers. By building a complete support package, the public money



mobilized from three different sources enabled RERA SD to provide two key services to producers. First, the capacity building programme established via the EkoBiz project in 2015, used training, business support and entrepreneurial-skill development to improve knowledge transfer and skills in the organic sector. So far, over 100 young people have been trained and provided with business support (e.g. the conception of business plans and advice on submitting their EU funding applications). EkoBiz has already directly contributed to the establishment

of 15 new businesses. Second, the agro-entrepreneurship centre launched in 2013 in Čaporice (Town of Trilj) expanded the “business zone Čaporice” to include 23 new hectares and the construction of three buildings to support start-ups in the food processing industry (incubators), a modern food testing laboratory, warehouse spaces, a training centre, and an exhibition centre. The final project phase, called Centre of Competences 3LJ, will represent a centre for applied research in agriculture.

Source: Jelena Petrov, rera sd, Croatia

CASE BOX

75

**Official Development Assistance (ODA) funds (Germany and India)**

As part of the 2008 Tokyo agreement, G8 countries promoted and facilitated the establishment of the Global Partnership for Agriculture and Food Security (GPAFS). Using ODA funds linked to the “One World Without Hunger” (SEWOH) programme, Germany has assisted various programmes in India and Africa. As part of such a programme, support is provided for small and marginal farmers (SMF) and tribal groups in India’s various rural areas through organizations such as Welthungerhilfe (WHH). In the last decade (2005-2014), India’s share of total global ODA funds (USD 1 634 billion) and total agricultural ODA funds (USD 76 billion) represents approximately 3 percent. However, in terms of shares from total German ODA funds (USD 125 billion), and German agricultural ODA funds (USD 3.6 billion), India has a better share at 4 percent and 6 percent, respectively, indicating a notable preference for India

and particularly for India’s agriculture sector. Germany contributes almost one eighth of its ODA to India, with its share in agriculture-ODA remaining at 9 percent. As a result, initiatives such as civil society organizations (CSO) and farmers’ groups in Eastern India, on their own terms and through donor-support (including German Donors like the Federal Ministry of Economic Cooperation and Development [BMZ]) have pioneered movements regarding sustainable agriculture and have integrated farming by following principles of agroecology. BMZ’s SMF investments on sustainable agriculture and integrated farming systems in three states, have demonstrated that shared prosperity, gender equity and sustainability with enhanced small farm resilience is possible. Initiatives such as “Green Colleges” and the “BhoomiKA - India for Eco Food” campaign have proven successful and have positively impacted the livelihoods of small holders by establishing sustainable supply chains.

Source: Ashish Gupta, Jaivik Haat

### 2.2.3. Development Banks

Regional development banks are responsible for providing large-scale investment funds, typically targeting rural development. Though generally focused on large-scale infrastructure, there are opportunities dedicated to markets and support to small- and medium-scale innovative initiatives. It is important to be familiar with the national rural development banks and to contact the public authorities involved in the implementation of funded projects.

CASE BOX

76

#### National Agro-Sylvo-Pastoral Development Fund (Senegal)

In 2011, Senegal created the National Agro-Sylvo-Pastoral Development Fund (FNDASP) (Order n°10203 of 2 November 2011), under the technical supervision of the Ministry of Agriculture and the financial supervision of the Ministry of the Economy and Finance. The funds managed and distributed by FNDASP are sourced from: annual State budget allocations; contributions from interprofessional associations in the form of levies from the agrosylvopastoral and fisheries sectors; the co-financing of projects with local communities; the co-financing of projects with the private sector; bilateral technical and financial partners (i.e. ECOWAS, FAO, IFAD, World Bank, UEMOA); donations, legacies and authorized subsidies.

The Fund's objective is to provide competitive and contract-based funding for: 1) agrosylvopastoral and fisheries extension services via interprofessional associations in multiple sectors; 2) producer training; 3) institutional support for producer organizations; and 4) financial support for agrosylvopastoral and fisheries research programmes through the National Agriculture and Agri-Food Research Fund (FNRAA). To date, the fund has successfully financed the livestock (dairy and meat), grain (maize, rice), and vegetable (tomato, onion) sectors, while encouraging sustainable practices (native varieties and breeds, use of solar power) and creating local markets for these products.

Source: FNDASP, <http://fndasp.sn/>

### 2.2.4. Research projects

Participatory research is increasingly being practiced and funded. It can focus on different aspects of sustainable food systems (e.g. production, processing, marketing, health, etc.) where researchers and practitioners co-produce and share knowledge. The funding provided for these projects can pay for staff, for services and for infrastructure investments. Accessing these funds usually entails a competitive process that roughly requires a six-month waiting period to find out if your application has been selected. Preparing project proposals is a time-consuming effort that needs collaboration with local (and often



international) researchers. Begin by contacting researchers you personally know and collectively search for calls published by national and international science foundations.

### 2.2.5. Payments for ecosystem services

In light of climate change, national governments are increasingly developing payments for ecosystem services programmes. These programmes highlight that governments can play a role in preserving biodiversity and conserving natural resources by paying farmers who practice sustainable agriculture. Each country coordinates these schemes differently, either via international or supra-national organizations (e.g. reducing emissions from deforestation and forest degradation [REDD+] programmes), or through municipal-level programmes. In either case, they are typically managed by the Ministries of Environment or Tourism.

CASE BOX

77

#### The Ecotourism Community Fund programme (Trinidad and Tobago)

In 1997, the government-run Tourism and Industrial Development Company of Trinidad and Tobago (TIDCO) funded 12 rural communities to manage their tourism resources through a community tourism action programme, that assigned a Tourism Action Committee to each community. Brasso Seco TAC is among the few that succeeded to become sustainable by developing an approach for the preservation of their natural environment and local cultural traditions. In 2000, TIDCO hosted an inter-community culinary competition in Brasso Seco. The following year, the event became a community based Cookfest held annually in October during the traditional “wild meat” season. From the proceeds of this event, alongside further assistance from TIDCO, Brasso Seco invested in constructing a visitor facility to improve the ecotourism experience for hikers and birdwatchers, and to broaden their products and services to include food and crafts made by community members. The facility employs eight residents. In 2005,

the community won a bid to become a contractor for the National Reforestation and Watershed Rehabilitation Programme (NRWRP) to help conserve the nearby rainforest. This continuous contract provides employment for 35 community members who are responsible for the creation and maintenance of 12 hiking trails, benches and sheds made from natural materials in the forest, and pathway signage. In 2006, Brasso Seco TAC received further support from the Ministry of Tourism to access a 15-acre parcel of land, formerly a cocoa and coffee plantation. In collaboration with the Inter-American Institute for Cooperation on Agriculture (IICA) and the Cocoa Institute from the University of the West Indies, they rehabilitated the plantation to produce sustainable cocoa and coffee. They built a traditional sun-drying facility in the forest, where they host an annual harvest festival with a collective traditional “cocoa dance” to crush the cocoa beans. They pack the cocoa in the adjacent facility and export it using their own brand and US organic certification labels.

*Source: Roxanne Waithe, IICA and Elaine Philipps, Brasso Seco Paria TAC, Trinidad and Tobago*

### A case of government-procured eco-services (China)

Hulun Buir City, in China, is located amid the three largest black soil areas in the world, covering 11 million hectares of land. It is considered one of the largest grain production areas nationwide and significantly relies on chemical fertilizers. Over time, these products have degraded the soil's organic matter at an annual rate of 0.5 points. In order to achieve a sustainable use of black soil and garner a stable base of organic grain to ensure national food security, the Government of Hulun Buir cooperated with Beijing Jia Bowen Biological Technology Corporation to develop a recovery plan. Consumers' preference for a specific type of grain served as a starting point. Building on the recycling industry and focusing on innovation to maintain the high quality of the land, they protected and enhanced the black soil and increased the effective use of livestock and poultry manure

via a “three-in-one, manure reduction” strategy. They also implemented a soil data monitoring service.

After three years of black, organic wheat production, remarkable progress was documented. The land at-risk level diminished from four to three, and the content of organic matter in the soil increased by 0.2 points, topsoil increased from 20 cm to 30 cm, soil nutrients doubled, and drought resistance increased. In 2017, the city used a government procurement bid to implement the same strategy on 13 300 hectares of land. The project recycled 48 000 tons of livestock and poultry manure and distributed them back into the production system and natural nutrient cycles. This use of manure has solved the problem of having an amount of manure equivalent to that produced in an intensive 200 000 pig operation, which negatively affects the environment.

*Source: Shi Yan, Shared Harvest, China*

#### 2.2.6. Private funds

While commercial banks are the most common source of private funding, sustainable food systems can look for other sources of private funding, aside from the traditional finance sector. Because sustainability is valued for future food systems, initiatives can find eager private-sector partners willing to support sustainable consumption and production practices.

#### 2.2.7. Ethical banks

Ethical banks exist in some countries. They diverge from commercial banks as they account for social concerns in their financial portfolios. They are usually more flexible in their lending terms and are willing to accept alternative guarantee forms. Identify the ethical banks operating in your area and determine the types of financial support they can offer.



CASE BOX

79

**Fairtrade certification as a credit guarantee (Latin America and Africa)**

The notion that sustainability-guaranteeing certificates could act as collateral for bank loans (as they demonstrate producers' trustworthiness and promise ethical sales contracts) began to circulate as early as the International Year of Microfinance in 2005. Yet, it was only in 2012 that the Fairtrade Access Fund was created. Incofin Investment Management, Fairtrade International and Grameen Foundation USA partnered in an international investment fund with an USD 1.3 million investment from Starbucks. Incofin manages the

fund, Grameen provides a unique range of loan products (short- and long-term) and technical assistance designed to meet the needs of small-scale producers' cooperatives, Fairtrade facilitates access to international markets, provides a minimum price safety net, and other support services for democratic enterprise development, while Starbucks grants the cash as part of its Corporate Social Responsibility (CSR) programme to support its suppliers (Starbucks purchases large quantities of Fairtrade-certified coffee). As of 2018, the fund has loaned USD 128 million to farmers growing 11 crops in 19 countries.

Source: <http://incofinfaf.com/#mission>

**2.2.8. Innovation competitions**

Over the past 5-10 years, a number of competitions and prizes have been created to stimulate innovation. Though they are often focused on start-ups and specific technologies, in the field of sustainable food, organizational models are also being



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CONSUMERS  
MARKETS  
PRICE  
KNOWLEDGE  
INPUTS  
LOGISTICS  
PACKAGING  
GUARANTEES  
FINANCE  
FORMALIZING  
PARTNERS



recognized as innovations. Each competition is different and may be designed to offer a monetary prize for already-completed work or for new ideas seeking funding. When there is no monetary prize, an event is organized to bring innovators together to generate new ideas and to meet investors. Information about these competitions are often found in newspapers, on the Internet and on social media.

### 2.2.9. Corporate Social Responsibility (CSR) programmes and private foundations

Private foundations and CSR programmes of large private companies are increasingly interested in funding innovations geared towards the development of sustainable food systems. Companies are particularly interested in investing in communities where their supply chains are operating. If you are selling some of your products in global supply chains, contact your clients to see if they are willing to fund some of your activities.

#### CASE BOX

80

#### CSR programmes in the chocolate industry (Cote d'Ivoire)

Certain tropical products, like cocoa, coffee, tea, sugar, palm oil, serve as key ingredients for the products of large food processors. Due to NGO pressure regarding the unsustainable practices of the majority of monocultural production systems, food processors have forged partnerships with third-party sustainability certification programmes like Fairtrade International and Rainforest Alliance to make these systems more sustainable. These programmes have increasingly recognized the detrimental impact of monocultures, particularly in forest landscapes, and that producers are both capable and need to diversify their production systems.

At ECOOKIM, a union of 23 cocoa and cashew cooperatives in Cote d'Ivoire, a cassava production programme was developed, funded with the money they receive from

the CSR programs of the chocolatiers Ferrero, Mars and Tony's Chocolonely. This programme, which carries the title "women's empowerment" has purchased planting materials and provided training to women farmers who have organized themselves into village cooperatives to manage the production, processing and sale of cassava on the local market. Though the initial purpose behind the cassava production was to stabilize household food security, the women ended up with surplus, a sign of their cooperative's success. As a result, communities have been using the money received from the Fairtrade Social Fund to further invest in this sector by purchasing cassava milling and processing machines with the objective to diversify their product range and reduce physical labour. Diversification can also help them to include more food crops that can be sold in local markets.

*Source: Allison Loconto, INRAE and Aminata Bamba, ECOOKIM, Cote d'Ivoire*



### 2.2.10. Civic funds

The majority of local initiatives that have transitioned to sustainable food systems have relied upon grassroots funds from their communities and other citizen-led efforts. Though such funding schemes remain effective, there are a few new approaches that enable initiatives to have an impact beyond their immediate communities. At the same time, some communities experiment with building self-financing, local systems that can operate autonomously.

### 2.2.11. Crowdfunding

Crowdfunding is becoming a common way of receiving small contributions from a large number of individuals via online platforms that typically include a short summary of the organization and their specific request for funding. There are some international sites such as Kickstarter, Gofundme, Indiegogo, Crowdrise as well as emerging national and regional sites such as m-changa, afrikwity, SliceBiz, iroko project. Run an Internet search for “crowdfunding” to see what is operating in your region.

CASE BOX

81

#### Networking three socially and environmentally sustainable enterprises (Hungary)

Cyclonomia is a Do it Yourself Bicycle Social Co-operative. Zsamboki Biokert is an organic vegetable farm and sustainable agriculture community education centre that distributes weekly vegetable boxes to food communities in Budapest, Hungary. Kantaa is a self-organized bike messenger and delivery company. Together, they have created more than 20 local, sustainable employment opportunities in the Budapest region. They are dedicated to ensuring that their food is distributed using locally manufactured cargo bikes, and they have built a logistics centre offering sustainable urban transport solutions for community members.

In order to expand their reach, Cargonomia launched a crowdfunding



campaign to raise money for specific investments:

- ▶ four new long john cargo-bikes to be hand-crafted at Cyclonomia in Budapest;
- ▶ two electric engines to assist bike deliveries in hilly areas in the city;
- ▶ one hand-made, human- powered prototype salad spinner for a partner entity, Zsambok’s Organic Garden; and
- ▶ additional materials to develop facilities for transporting and storing vegetables and breads.

Source: Orsolya Lazanyi, Cargomania

### 2.2.12. Local currency

Some communities are experimenting with the creation of local currencies used for exchanging products and services within the community. These approaches maintain some value within the community, while helping marginalized members to become more implicated in the local food system. Some examples may consist of simple food-based barter systems that have already been used for millennia. Other systems are more complex and rely on printed bills. It is important to note that these initiatives are very challenging to sustain and usually must include goods and services apart from food.

CASE BOX

82

#### Local currencies, what works and what does not (Colombia)

Familia de la Tierra's local currency was an initiative that took advantage of a recurring situation in Bogotá: unemployed youth in vulnerable situations lacking rights and opportunities, and urban seed production farms attended by older adults who could not perform the physical activities needed to increase production. A local currency was released in such a way that young people were paid for their labour and then used the money to buy products from Familia de la Tierra (food, seeds, etc.)

##### What worked?

1. The exercise generated the labour needed to produce seeds and the investment was only a fraction of what it would have been with national currency, which is generally scarce and difficult to obtain.
2. The community had strong social ties and gained a better understanding about the functioning of a currency and the economy in general.

3. Seeds were produced for several more urban gardens and others were preserved.

##### What didn't work?

1. The continuity of the exercise did not take place as expected due to the limited number of actors. The local economic system did not have enough turnover to generate welfare for more inhabitants.
2. The initiative's size was favorable. However, had it expanded, problems related to counterfeiting and/or loss of currency would have emerged.
3. The cost of printing the money was covered by a public entity, so its maintenance was no longer feasible.
4. Communication mechanisms within the community were insufficient and more organization was required for local currencies to function efficiently.

Source: Oscar Nieto, FdT



©Familia de la Tierra



### 3. HOW CAN YOU FIND THE FUNDS THAT YOU NEED?

Remember that finance can be in cash or in kind (e.g. services, labour, equipment, food products). Keep this in mind in order to recognize a financing opportunity when you see one. Try these following tricks:

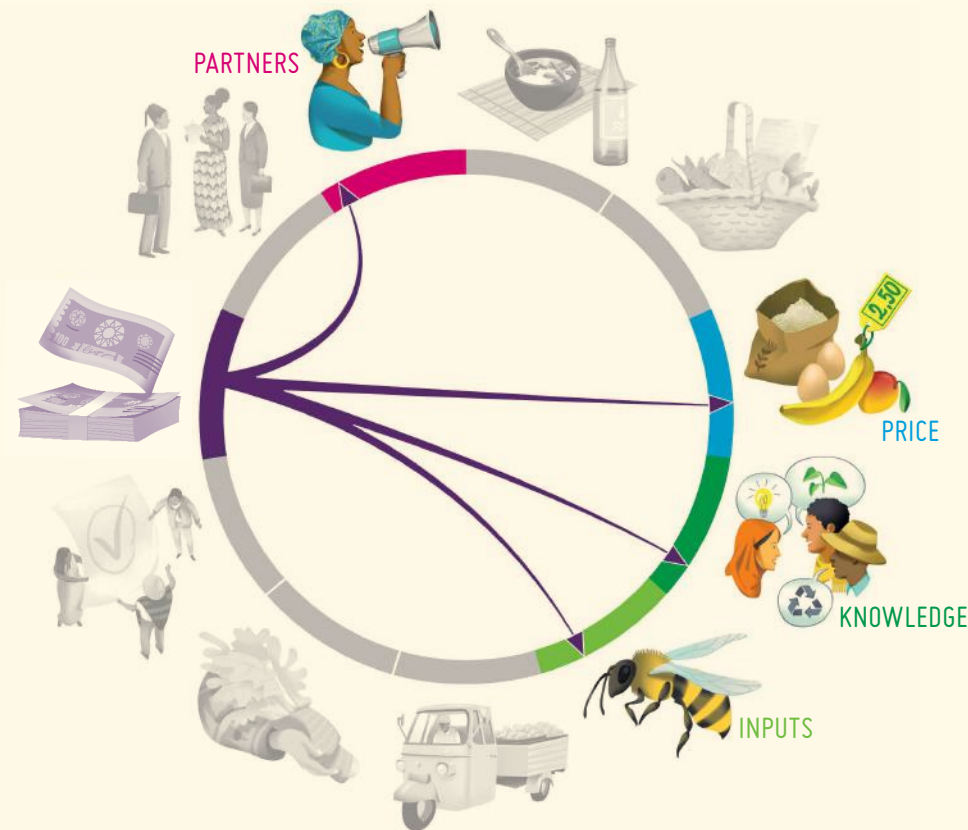
1. Analyse internal and external sources, especially the strengths and weaknesses of each source (prior to the analysis, a business plan is needed), and a combination of sources. This may change over time.
2. Develop criteria to assess financial sources, such as the sustainability of the lenders' standards (e.g. what kind of banks, what kind of company CSR) and be aware that start-ups may have limited options. Second, it should be practically oriented, not too idealistic. It is more likely to start with self-finance (internal) because new initiatives typically don't have records to prove their financial viability.
3. Develop a set of back-up plans, e.g. plan A and B, as competitive grant awards mean that you may not always win the competition.
4. Manage your membership in a way that will strengthen your members' commitment to the initiative and willingness to invest their own personal money.
5. Develop partnerships with public and private actors based on trust and mutual guarantees.

#### **TIP 37**

#### **Finance your initiative**

- ▶ Though many financing options exist, accessing them is not often easy. Think outside the box and be creative with how you mix and match your options.
- ▶ An initiative's lifecycle is not static, so you may need different amounts of money at different points in time. Try to keep a record of possible financing sources that you can refer to when needed.
- ▶ Your members are a great resource for mobilizing internal funds and for finding external funds. Maintain transparent relationships with members to ensure member loyalty in the long term.
- ▶ If financial autonomy is a goal, financial support should be mainly sourced from internal sources than from external sources as this is ultimately more sustainable. However, if you are thinking about expansion, you will eventually need to find external funds.

# THE LEARNING ADVENTURE, WHERE TO NEXT?



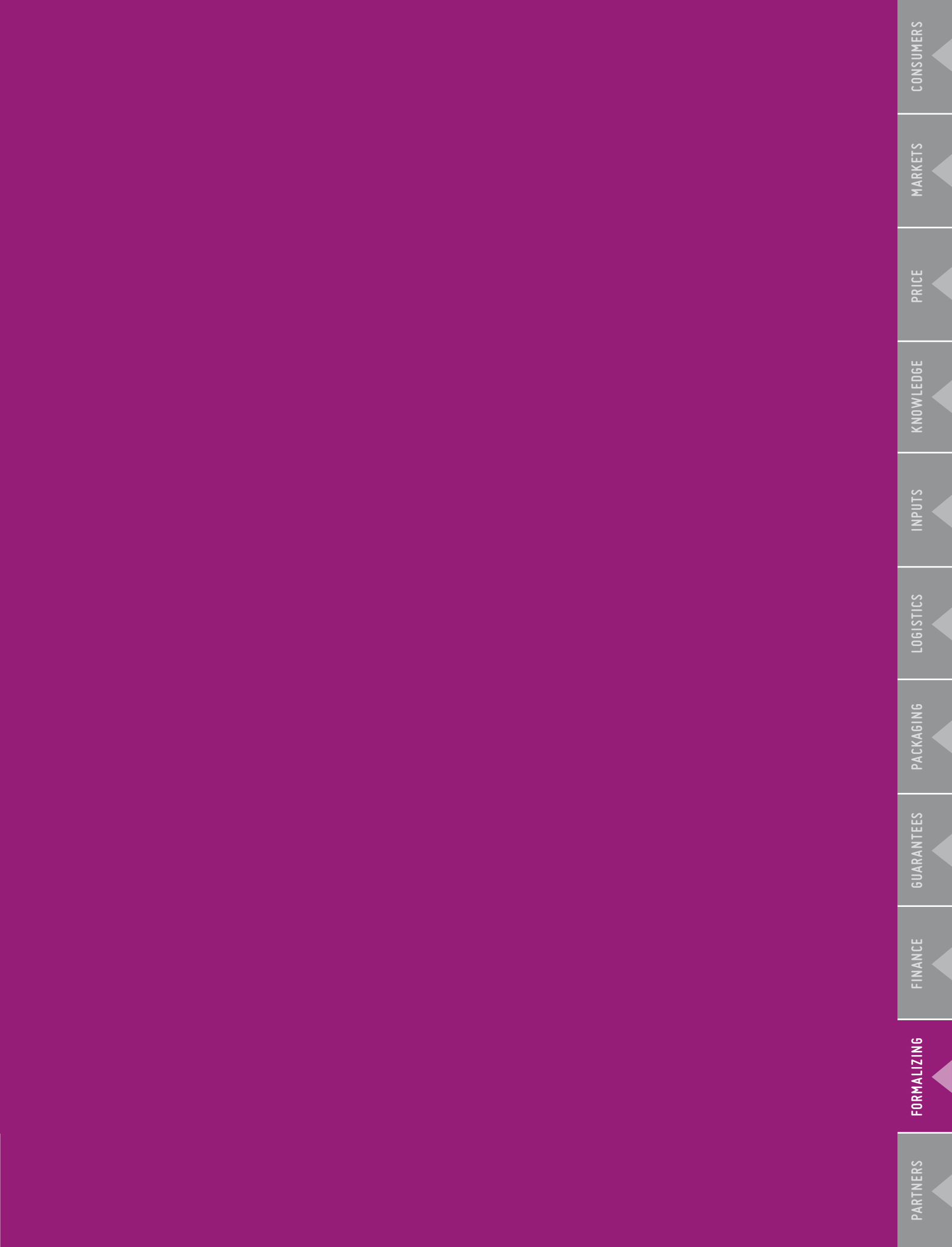
- ▶ Do you wish to mobilize your members' networks to finance a new investment? Find some tips on how to do this in **Chapter 11: Bringing in partners and advocates**.
- ▶ Have you decided to apply for research funding and need to collaborate with researchers? Explore some options in **Chapter 4: Sharing and co-creating knowledge for sustainable production**.
- ▶ Do you want to use product sales as your core financing strategy, but aren't sure how much you can charge for your products? Read **Chapter 3: Finding the "right" price** to read through some tips.
- ▶ Do you finance inputs for your members and are you looking for more sustainable solutions? This is possible, so try referring to **Chapter 5: Managing and accessing sustainable inputs**.

How about moving on to another chapter that draws your attention?

# 10

# FORMALIZING YOUR COLLECTIVE WORK





PARTNERS

FORMALIZING

FINANCE

GUARANTEES

PACKAGING

LOGISTICS

INPUTS

KNOWLEDGE

PRICE

MARKETS

CONSUMERS



## 1. WHY IS THIS IMPORTANT?

Are you thinking of starting a new initiative or formalizing your collective work?

Developing a new project is challenging, requiring diverse strategies to transform ideas into realities. Internal organization is key for an initiative's success.

How responsibilities are allocated to different people within an organization or among a network of organizations; who gets to take part in decision-making; who has financial or legal responsibility for the initiative; and how you register your organization with the public authorities, will all condition a considerable portion of your initiative's activities.

Each model carries different opportunities and challenges, and depending on what you are trying to achieve, you may want to choose a different model.

## 2. SETTING COMMON OBJECTIVES FOR THE ORGANIZATION

Facilitating a group process always requires an initial self-definition process. Here are some leading questions to facilitate collective reflection about common objectives:

1. Who are you?
2. Who do you want to become?
3. What do you want to achieve? Create? Produce?
4. How long do you want this process to take?
5. How will you get there?
6. How you will know when we have accomplished these goals?

### 2.1. Vision, Mission, Goals and Values

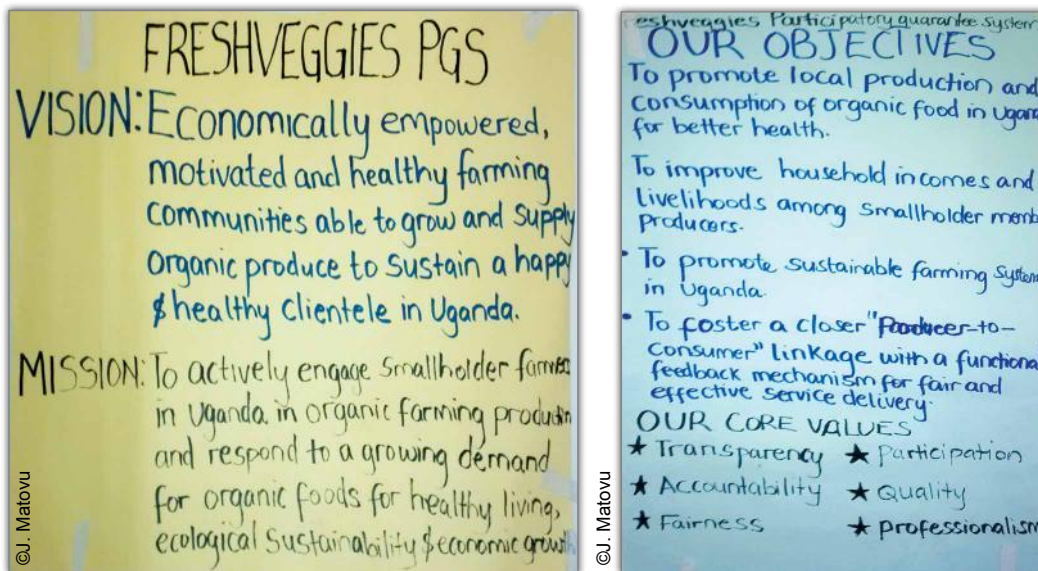
The **vision, mission, goals and values (VMGV)** of an organization are basic tools for building a solid, sustainable collaboration. Some countries have legal requirements for registering an organization. VMGV are complementary concepts; articulating how they link your different activities can help to keep the whole group on track.

- ▶ **Vision** is a conceptual image of the future. It encompasses what the organization aspires to in the long term. It is the dream that will guide the organization into the future.
- ▶ **Mission** is an organization's reason for being. It is the purpose for which the organization's strategies are built upon. It answers the question: *why was the organization established?*



- ▶ **Goals (objectives)** state what the organization plans to achieve. All activities are meant to deliver these objectives. Goals reflect specific short- or long-term plans. They should be SMART (Specific, Measurable, Achievable, Realistic, Timely). Common objectives and goals should be revised periodically by the group, using a strategic planning process.
 

Keep in mind that in community production groups, all producers should have similar objectives and goals. Sharing a common production goal is very necessary as it correlates with farmers' commitment and their output levels, and also helps in meeting clients' expectations.
- ▶ **Values** drive the decisions of sustainable food system initiatives and help members to create a core identity. They also orient non-members about engagement expectations. They are the foundation of all rules and standards adopted by the organization.



Source: FreshVeggies PGS Group Vision/Mission/Goals/Values setting work

CHECKLIST

Guiding questions to define your VMGV

1. Do we just want to sell a small amount during weekends?
2. Are we working toward full-time production?
3. How much growth do we want to experience?
4. How many markets/restaurants/stores do we want to service?



## 2.2. Defining group identity

Defining who the group is shapes its composition, and the composition defines its goals. This identity should build on the organization's core values. What if there are other actors i.e. advocates, supporters, members of the academy, religious figures or government agents who seek membership and don't share the same values? For a multi-actor organization, the group needs to reach a consensus on membership and partnership criteria and how to distinguish both categories.

To determine these differences, invite all potential collaborators to jointly discuss the VMGVs and determine where agreement can be reached in order to build a strategy and an identity. Alternatively, you may lack the necessary information to know if others share the same interests as you. In this case, launch an open call for interest in a topic (maybe organize a public discussion or seminar) and see if those interested are willing to formalize a group-based project.

### TIP 38

#### Form a sustainable food system initiative

**1. Is the project producer or consumer -led?**

*Knowing who motivates your project will help focus the overarching organizing structure and give consensus to who will lead decision-making discussions.*

**2. Is there adequate access to land, water, labour, finances or inputs and are those resources fit for the planned type of production?**

*While this may sound obvious, it is one of the main obstacles for initiating any agricultural project.*

**3. Is there a well-developed business plan (based on a roughly three-year (or season) plan)?**

*If the farmer is externally employed, or if the farmer is self-initiating the project, it is important to estimate the market size needed for business viability, and how to satisfy consumption needs with a diversified crop. This business plan, based on a financial strategy, also affects overall sustainability. Questions about possible varied income sources should also be addressed.*

**4. Do we want to expand our mission and include youth and education, and if so, how?**

*Educational projects for both adult and children consumers can add value and depth to local sustainable food systems. They require careful pedagogical planning, and often mandate coordination with local educational authorities.*

## 2.3. Good leadership

In a sustainable food system, all members of the group have a role to play, but there is also a need for someone (or a group) to guide others. Leadership style is very important as it can either positively or negatively impact collective work and goal achievement.

CASE BOX

83

### Organic leadership – a lifestyle concept

Organic leadership is a hybrid of servant, relational and transformational leadership styles. An organic leader influences others through compassion. It is as much about reaching and achieving goals as it is about the way that the leader and the group achieves them. Organic leadership is typically made up of six principles:

1. Relationships shaped by collaboration.
2. Community shaped by narrative.
3. Influence shaped by compassion.
4. Direction shaped by discovery.
5. Authenticity shaped by accountability.
6. Networks shaped by people Webs.

*Source: Patricia Flores, IFOAM Organics International (extracted from Organic Leadership: An Emerging Leadership Style, K. Heitzman)*



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## 2. ESTABLISHING AN ORGANIZATIONAL MODEL FOR YOUR GROUP

The way actors get together and set a common structure for their joint operations, depends largely on the local context. Regardless of how creative actors are, formal organizations are shaped by national legal frameworks.

### CHECKLIST

#### Determining the flexibility you need in your organization

1. How formal is your engagement?
2. Are you trying to guarantee a decent income for the producer in an overall sustainable context?
3. Are you trying to minimize tensions/conflicts by establishing the rules of the game?
4. Are you trying to make the initiative sustainable over a long period of time?
5. Are you trying to structure operations and divide responsibilities for efficiency and clarity within the organization?
6. Are you hoping to change your scale of operation by scaling-up or scaling-out (getting bigger or inspiring others to try out similar approaches)?

When farmers, transparent intermediaries and consumers cooperate to foster a food system change, their engagement should be formally registered following national laws and regulations. In some countries, for instance, a group of farmers is not allowed to sell their products unless they are registered as a farmers' cooperative.

Discuss the different possible options with your local public agencies. Usually, they depend on the planned size of the enterprise, the amount of capital, the type of business (domestic or international) and the number and type of owners. You can usually find this information online or by visiting specific offices in your area. Try asking for information at:

- ▶ Chambers of Commerce online or in person; and/or
- ▶ local business bureaus online or in person.

### TIP 39

#### Start a business

How easy is it to open a business in your country? Visit the following website to figure out how many days, on average, you may have to wait before obtaining different types of authorizations: <https://www.doingbusiness.org/en/reports/global-reports/doing-business-2020>

Each country uses different terms and regulations to govern possible organizational forms. For example, a cooperative does not have the same meaning across different countries: they can be non-profit, for-profit, or even outlawed. However, there are a couple of “large families of organizational models” that can help you to understand what the options are. Below, we provide examples of models that we have used.

## 3.1. Social enterprises and other types of enterprises

### 3.1.1. Social enterprise

Social enterprises are revenue-generating businesses that have two goals: 1) to achieve a positive social, cultural, community economic, and/or environmental outcome; and 2) to earn revenue. These businesses can be either non-profit organizations, or for-profit organizations. While on the surface many of these businesses look like traditional business, they are exceptionally mission-driven, and often have revenue-generation as a secondary priority.

#### TIP 40

Verify the legal registration of social enterprises in your country

### 3.1.2. Employee-owned enterprise

There are several types of employee-owned enterprises, including: direct employee ownership (employees are major shareholders of the organization), indirect employee ownership (employees own collective shares of the organization through a trust), and/or a combination of these two models. In this model, employees adopt the role of owners, turning them into committed actors with a stake in the business's success.

CASE BOX

84

#### ChocoTogo – an employee-owned processing enterprise (Togo)

Created by a group of young entrepreneurs in 2012, ChocoTogo is the first cocoa-processing company in Togo to be collectively owned by its employees, and it is the first national bean-to-bar chocolate brand. Satisfying a gap in the market for

in-country chocolate production and distribution, these trained chocolatiers have developed a small-scale, production facility and training centre. The employment of local women is one of their main pillars. Since its foundation, ChocoTogo has opened the marketplace to Togo-controlled and -produced fine chocolates.

Source: Nathalie Kpante, CHOCOTOGO, Togo  
<http://www.chocofair.org/en/chocotogo>



### 3.1.3 Family business

Family enterprises are the most common business model in the world (<http://www.ffi.org/>). As they vary extensively on a global scale, and from company to company, it is challenging to draw out a single definition. Essentially, family businesses consist of a model in which multiple family members are involved as major owners or managers, and/or in which the majority of decision-making rights are held by family members related to the company's founder. Some countries require that businesses register as private equity enterprises.

### 3.1.4. Trading company

A trading company is a business that works with a variety of produced goods sold to consumers, to other businesses, or directly to governments. Trading companies often buy goods, broker goods, and coordinate deliveries of goods to consumers, but they usually do *not* own or store goods themselves. A transport company, on the other hand, may own trucks and warehouses and may also be registered as a trading company. Trading companies can function under diverse legal frameworks, including limited liability models, unincorporated identities, or with territorial rights.



## 3.2. Cooperatives

According to the International Cooperative Alliance (ICA) definition, “a cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise”. Cooperatives can be established by producers, consumers, and/or traders. They function according to the following principles:

1. voluntary and open membership;
2. democratic member control;
3. member economic participation;
4. autonomy and independence;
5. education, training and information;
6. cooperation among cooperatives; and
7. concern for community.

CASE BOX

85

### Hansalim - a cooperative farmer-consumer structure (South Korea)

Hansalim is one of the largest sustainable agricultural cooperatives in the world. Based in South Korea, it was established in 1986 and by 2016, and its consumers make up over half a million households. With 22 consumer cooperatives, 204 storefronts and a total sales revenue of USD 362 million, Hansalim successfully connected 112 farming communities with over 200 families in the marketplace. Such scales are managed by co-opting existing structures such as regional Consumers' Cooperatives and Farmers' Associations. Each body has its own governance structure and nominees in Hansalim's governing board. Annually, members of both structures meet and decide on various issues such as product pricing, product availability, the budget for price



and production stabilization, and arrange other social meetings like festivals and celebratory gatherings. Each of the sub-structures is managed using democratic terms of governance. Any advocacy work done by Hansalim is conducted on behalf of both consumers and producers.

Source: Hansalim, South Korea,  
<http://eng.hansalim.or.kr>



### 3.3. Not-for-profit organizations and foundations

Having a non-profit establishment with a profit-oriented structure or cooperative, allows for accessing NGOs and public/donor funds in addition to private revenue.

#### 3.3.1. NGO that provides marketing support/space

NGOs are private-sector (typically non-profit and non-sectarian) groups that participate in and carry out education, training, humanitarian aid, and/or cooperation projects. These may include major global organizations or smaller, locally focused groups. Some NGOs foster activity around a single issue (such as human rights or environmental concerns), while others have a more analysis- or research-oriented role.

CASE BOX

86

#### Maputo Earth Market (Mozambique)

Established in 2013, the Maputo Earth Market grew out of a collaboration between the Italian NGO “Gruppo di Volontariato Civile” (GVC) and Slow Food International. With 13 growers and producers from Mozambique’s Maputo province, the Earth Market is a central distribution point for fruits and vegetables, fresh eggs, and prepared jams, all abiding by the “local, seasonal, clean, and artisanal” mantra.

The market was created as part of a consortium of NGOs (including Italian-based GVC, and Eссор), the National Farmers Union of Mozambique, and the local Slow Food convivium. It is a partnership that highlights the interplay between public-private sectors, and the role that non-governmental organizations can play in providing relational, analytical, financial, and research support for new organizations.

Source: Stelio Miguel Joaquim, Maputo Earth Market, Mozambique  
<http://www.earthmarkets.net/network/maputo>





### 3.3.2. Foundations

Foundations are divided into two categories: charitable foundations, and private foundations. Charitable foundations are a legal category of non-profit organizations specializing in donations or in financially supporting public or private organizations. Private foundations hold a similar function, though they are traditionally endowed by an individual or a family and have a different legal status and requirements.

CASE BOX

87

#### Green Net Cooperative/ Earth Net Foundation (Thailand)

As seen with Green Net, Thailand, different organizational structures may have different needs. Green Net was first registered as Green Net Co-operative, because this structure matched Green Net's fair trade values and allowed legal recognition as a trading and exporting organization. Later, Green Net registered as Earth Net Foundation, a non-profit organization. This type of structure was eligible for receiving external funding for development work, for providing training and support to new farmers to convert to

organic methods, for developing farmer group enterprises, and for promoting consumer awareness of organic produce and fair trade. A third organization, Green Net SE Co. Ltd., a limited, social enterprise partnership, was set up to develop the Organic Forest Coffee Project, as very high levels of investment were required for knowledge, infrastructure, and fair price purchasing of coffee beans. As a limited partnership, social investors were welcomed to invest larger amounts of capital, thus enabling the project to launch.

Source: Michael Commons, Green Net, Thailand  
<http://www.greennet.or.th/en/about/earthnet>

## 3.4. Other organizational models

### 3.4.1. Community farms

In the last 50 years, newer forms of group processes have appeared. For instance, community farms have evolved from the communal farms of the 1960s to become a mature manifestation of reclaiming the Commons and protecting land and community land ownership or lease through Community Land Trusts or other similar agreements that secure land for collective food production.



### 3.4.2. Community supported agriculture

A CSA is a partnership between a farm and consumers where farming risks and rewards are shared. As part of an active approach to re-localize the economy, a CSA is based on a partnership, usually formalized as an individual contract between each consumer and the producer and characterized by a mutual commitment to supply one another (with money and food) over an extended period of time. CSAs hold some fundamental objectives:

- ▶ to restore local food sovereignty;
- ▶ to create producer-consumer solidarity to build more socially just and sustainable communities;
- ▶ to share production-based risks and benefits;
- ▶ to defend health and nutrition through food; and
- ▶ to develop civic responsibility.

### 3.4.3. Network (informal structure)

In a network model, there is no central secretariat and no central coordination system for service provision because network relationships are informal. Traditionally, networks are loose associations of organizations or individuals collectively working around a common idea or goal. Certain networks are more legally formalized to provide security for the involved parties.

#### CASE BOX

88

#### Network contracts (Italy)

The Italian Contratto di Rete is an innovative tool that allows for collaboration between companies, while maintaining their individual business independence. The purpose is to increase innovation and overall market competitiveness. All parties involved sign

a contract through a public deed, a private notary, or an approved e-signatory model. With nearly 20 000 of these contracts currently used in Italy, they serve as an innovative example of legal frameworks for entrepreneurial companies.

*Source:* Contratto di Rete Registro <http://contrattidirete.registroimprese.it/reti/index.action>

## 4. MANAGING GROWTH AND FINDING THE RIGHT SCALE

Deciding whether or how to scale-up or scale-out is fundamental. Depending on the selected organizational model, it is often more beneficial to scale-out in a creative way, working within a network of complementary producers, than to scale-up in size. Various complementary local markets can be networked in a coherent way by working with local authorities including direct sales initiatives, and with local public procurement programmes for schools, hospitals, and homes for the elderly. Scaling-up can also be done via cooperative-based, small-scale processing schemes.

The systematic review of your organization's objectives should consider the desired scale of operation, which can be divided into different scales for different phases.

**Remember: different scales require different physical and organizational structures.**

CASE BOX

89

### Terra Viva, Agricultores Orgánicos (Chile)

Terra Viva is an organic farmers' association based in Santiago, Chile. Founded 23 years ago, it is a pioneer of the Chilean organic movement, whose purpose is to organize organic farmers for local domestic markets. With only 10 clients to start with, it now provides food to more than 500 customers, including restaurants and hotels. Since 2008, Tierra Viva is a state-accredited PGS. Andrea Tuzcek, founder and lead farmer says:

*With the new organic regulation embracing the self-certification systems of farmers' organizations (or PGS), new farmers and organizations demanded to become part of our initiative. We noticed that after a few years, once they are educated and know how to manage the system, they return to their communities to create their*



*own systems. We understood that while we may not increase our membership, we can help newcomers to set up a credible guarantee system.*

In other words, Tierra Viva, without planning to play this role, is an incubator of PGS initiatives for organic farmers trying to comply with the standards of Servicio Agrícola y Ganadero (SAG), the national competent authority for organic agriculture.

Source: Patricia Flores, IFOAM, Peru



## 4.1. Managing growth in numbers

Community groups typically start small and continually grow. Some evolve into large enterprises. In any case, growth management is an essential factor of group building. Growth means the scaling-up of the numbers of farmers, as well as growth in terms of meeting market objectives.

### CHECKLIST

#### Factors that affect the dimensions of your group

Many factors affect an organization's size and it's hard to isolate only a few. Nevertheless, the next few questions can help you define the right dimension for your organization's foreseeable growth:

1. What is the scale of the sustainable food movement in your town/area (i.e. are there easily available inputs for ecological treatments, seeds, markets, research, etc.)?
2. Is there a specific demand for your products?
3. What is the consumption trend (both locally and globally)?
4. Do you have the necessary funds to maintain a functional network?
5. What is the scale of the organization you want to build?
6. Does your organization need to grow in numbers or be consolidated?
7. Are there more people who want to join the organization?
8. What are the channels you can use for internal communication with members? (Cellphone, chat apps, Facebook, etc.)

### 4.1.1. Choosing the right fit

Not everyone fits into a given group. As a producer, you need to identify and collaborate with individual members who share similar objectives. This will enhance collective success and growth. A retiree raising poultry for her own consumption, for instance, may not have the same interest in and drive for growth as a young couple who wants to farm professionally. Much heartache and conflict can be avoided when all group members share the same goal.

CASE BOX

90

**The growth of a network model (Colombia)**

Familia de la Tierra’s (FdT) network model allows them to respond to local socio-economic dynamics: new markets, family-inclusive research projects, family-inclusive product innovations, new products developed and/or in demand, etc.

Currently, 25 rural families in Bogotá are involved in the network, planting native potatoes and Andean crops, while serving 12 restaurants, three hotels and ten stores in Bogotá, Cali and Medellín. FdT has joined their efforts with three partner organizations operating in rural Cundinamarca who altogether include

about 118 families. They also work with the Faculty of Agrarian Sciences at the National University of Colombia, with professors of SENA (National Service of Learning), with independent cooks, with gastronomy professors, and with university students who study the food system in question.

FdT has grown following the rhythm of the market and the local economy around organic farming, leading to a growing actor involvement, that does not only include organic producers. They have scaled-out to accommodate a changing economy and above all, the growing demand for healthy and local food in hotels and restaurants.

Source: Oscar Nieto, Familia de la Tierra, Colombia

**4.1.2. Is your group prepared to welcome new members?**

The group should acknowledge that new members may create animosity, and at times, new members may eventually leave or cause old ones to leave. The group must be prepared to deal with the potential feeling of discomfort that stems from new members’ arrival or the loss of old ones.

**4.1.3. How to handle new members**

Follow-up with new members is helpful to identify reasons for their withdrawal and to better understand group dynamics. If new members like the group, inform them about the next meeting. If members leave and are not replaced by new ones, it will be challenging to sustain the growth of your organization.



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## 4.2. How to balance goals and capabilities?

Affirm your goals and recognize your abilities. Use the following few tricks to find this balance:

- ▶ Transparency is a key factor of success for any collective venture.
- ▶ Fairness is crucial.
- ▶ Compensate the time of those who work most to avoid a sense of inequality and frustration among more diligent members.

### 4.2.1. Joint decision-making on key issues

An improved balance of power does not only translate into status, but also into joint decision-making processes. Key issues, like price-building, can become central in such a process. For all actors involved in the operation, this can be a major factor of empowerment and sense of ownership.

**Remember: groups constantly evolve, and as such, try to set up flexible structures in order to revise rules and priorities when necessary. Assigning specific tasks to different people to distributes power and voice among the group and leads to a more “naturally” structured governance system.**

### 4.2.2. Dynamics

Common objectives are not set once and for all. They must be regularly and collectively reassessed as the organization grows and changes. SWOT Analysis can be used to check the performance of an organization *vis-à-vis* its objectives.

**SWOT** is an acronym for the **S**trengths and **W**eaknesses internal to the organization and its operation. **O**pportunities and **T**hreats are external pressures that condition how the organization can work.

- ▶ Create a 2x2 table and fill in the SWOTs relevant to your organization.
- ▶ Once you have listed them, you can determine if you have any strengths and opportunities that can counterbalance the weaknesses and threats.
- ▶ Prioritize urgent issues by mobilizing your strengths and opportunities. Put capacity building or action plans into place to reduce weaknesses and avoid threats.

## 5. HOW TO ENSURE THE FUTURE OF THE ORGANIZATION? INVOLVE YOUTH!

### 5.1. Create employment that is attractive to youth

Youth are not always attracted to agricultural work, but this doesn't mean that all jobs in sustainable food systems are unattractive.

The processing of sustainable food is an example of youth employment in agriculture. Increased reliance on information technology, smartphone communication, solar panels, transport and electronic surveillance technologies are increasingly attracting young educated people to become agricultural entrepreneurs.

CASE BOX

91

#### Involving youth and women in sustainable agroecological initiatives (Brazil)

In order to capture added value and create employment, the Ecovida Network managed to develop several small agroecological processing plants in recent years. While there were approximately ten of these plants in 2000, there are more than 150 today, and 90 percent of these are managed by women and youth. Women and youth experience numerous benefits from these new jobs:

- ▶ increased self-confidence and autonomy;

- ▶ creation of new credit lines in local banks specifically targeting rural youth and women;
- ▶ new income sources and possibilities to access agroecological markets and public procurement programmes (today a young man or woman who has registered in an agroecological processing plant and sells to institutional programmes can earn up to USD 7 000 per year);
- ▶ permanence of youth in agriculture and in rural areas; and
- ▶ the creation of new technical knowledge related to food processing.

Source: José Antonio da Silva Marfil, Ecovida, Brazil

#### 5.1.2. Community-based education

Community-based education is a powerful tool to engage future generations in your organization. Think about how to include children and teenagers, keeping in mind that this is often accompanied by new legal requirements.

**Remember to verify the legal definitions for work, apprenticeship and volunteering in your country, and respect these as you build your programme.**



### CHECKLIST

1. Did you verify the legal registration requirements in your country?
2. Did you use a participatory process to define your group's mission?
3. Did you find a model that best fits your mission and your values?
4. Did you adapt the model to fit your local context?
5. Did you divide up different responsibilities for different actors in your group?
6. Did you set up a system for dealing with problems that arise?
7. Did you register your group with the authorities?

### TIP 41

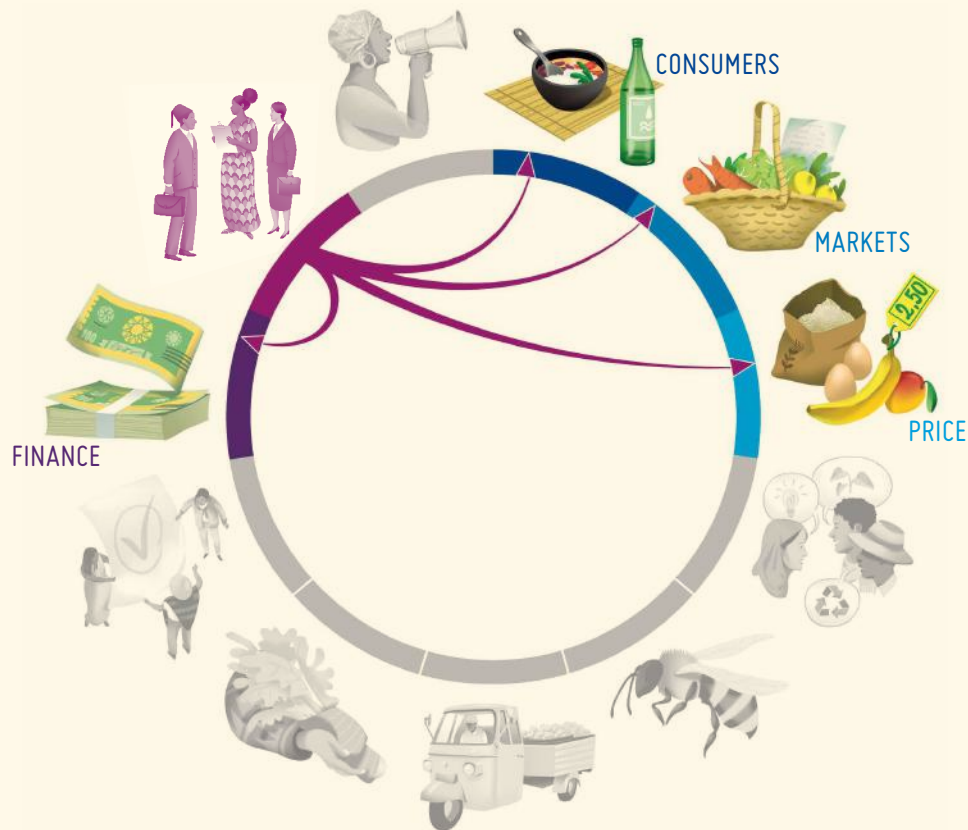
#### Find and maintain the right balance

- ▶ Finding the right group balance and maintaining it over time is not a simple task. Sharing core values and responsibilities eases this process.
- ▶ Though informality has its advantages, formalizing and registering your initiative will make it accessible to public and private funding programmes.
- ▶ Different organizational forms are required at different times throughout your initiative's life cycle. Keep your structures as flexible as possible in order to effectively deal with opportunities and threats as they appear.
- ▶ Changing the scale of operation is a natural part of organizational development. Make sure that your group agrees on the best way to scale-up or -out so that you can maintain your group cohesion in the long term.





# THE LEARNING ADVENTURE, WHERE TO NEXT?



- ▶ Thinking about developing a CSA? Go to **Chapter 2: Knowing your markets** to learn more about this model.
- ▶ Do you have a rural youth education component in your project? Return to **Chapter 1: Attracting consumers and keeping them engaged** to learn about some examples.
- ▶ Do you want to set up a price-setting committee as a way to build democratic processes in your organization? Skip to **Chapter 3: Finding the “right” price**.
- ▶ Now that you have registered your group, do you have the necessary operating or investment funds? Go back to **Chapter 9: Innovative finance** to gather some ideas.

**Or maybe another chapter comes to mind? Go check it out!**

# 11

# BRINGING IN PARTNERS AND ADVOCATES







## 1. WHY IS THIS IMPORTANT?

Innovation is the process of bringing new ideas to users, through new organizational structures and means of collaboration. Partners and advocates can play an important role in bridging these connections and capturing the interest of consumers and producers.

**Partnering** means building networks, agreements, alliances, collaborations and coalitions to exchange information and create “noise” around your innovation, while mutually benefiting all partners.

**Advocacy** means calling upon one’s aid. It is needed to prevent an innovation from being captured and appropriated by another organization or competitor, squeezing out its actual practitioners and taking advantage of a “successful” situation. This could be done by anyone, especially experienced large-scale companies with specialized lobbyists, who can claim to represent you.

### TIP 42

#### Convince stakeholders

1. **Policy-makers (government) tend to listen more to organized groups.** Institutionalizing an innovative, sustainable food system is a core challenge. Once an innovation becomes institutionalized, it loses its novelty and innovators risk losing control over their system. Long-term engagement with government and market actors lessens this risk. Coalition groups and alliances among actors in a sector (inter-professional associations) can provide a support mechanism for long-term advocacy. From our experience, policy-makers listen to these groups, act on their recommendations or requests, or negotiate an agreement to ease potential social tensions. In some countries, it is mandatory for organized groups to help decision-makers write policy implementation guidelines for their innovations.
2. **Data/information from trusted sources (i.e. opinion leaders, researchers, scientists, religious figures) increases credibility.** Seeing how innovations challenge the existing order in food systems, support from such sources is crucial to demonstrate effectiveness (e.g. in terms of cost-efficiency, environmental and social benefits, food safety).
3. **To access other and/or bigger markets.** When demand is high, production increases. High demand comes from established and/or mainstream marketing outlets such as big supermarket chains, restaurants and specialty shops. However, entering these markets means adhering to certain supply quality and quantity requirements, which are generally stricter than in direct sales. So, building network support and partnering with other farmers’ groups or processors can be helpful. Sometimes, an endorsement or a letter of support from a respected network or partner is sufficient to convince the logistics or product manager to source products from a different supplier.

4. **Partnerships and networks allow innovators to mobilize funds.** Having enough money to operate is essential. In most cases, innovations are self-funded, though this typically limits their scaling-up capacity. Local and international funding partners usually require proof of a satisfactory track record (i.e. three years of operations, membership, scope of operation and social impact) in order to qualify for funding assistance. An established network support system could help to improve access to external funding sources.
5. **Trust is crucial for partnering.** Partnerships are built upon common objectives and a shared, forward-looking vision created through commitment, trust and sustained engagement by involved partners.

CASE BOX

92

### PGS: Networking, partnership and advocacy at work (Philippines)

The PGS started in the Philippines in 2004 with Magsasaka at Siyentista Para sa Pag-unlad ng Pagsasaka (MASIPAG), registered as MASIPAG Farmers Guarantee System (MFGS). Farmers' groups, that MASIPAG helped organize and support, were responsible for its implementation. In 2012, the Province of Quezon, in search of a certification system suitable for local, small organic farmers selling at the provincial capital's weekly market, initiated a locally adapted PGS by establishing a partnership with MASIPAG to train the province's organic producers. The experience of Quezon PGS inspired decision-makers of other provinces to utilize the PGS instead of third-party certification for their own local markets.

In 2013, PGS Pilipinas was officially launched as a network of PGS initiatives across the country. Since its creation,

PGS Pilipinas created a partnership with IFOAM to gain official, government recognition of PGS. This advocacy activity resulted in a three-year moratorium of the implementation of Republic Act (RA) 10068, the national organic regulation that exclusively recognizes third-party certification for organic certification. The three-year moratorium allowed PGSs across the country to strengthen and expand.

In 2017, following the moratorium, the Department of Agriculture, through the Bureau of Agriculture and Fisheries Standards (BAFS), invited PGS Pilipinas and other members of the network to the Technical Working Group (TWG) to develop guidelines to establish a national PGS (a revision to RA10068 intended to officially recognize PGS). In June 2017, the final draft of the guidelines was approved by members of the TWG and is used as a reference for legal revisions.

*Source: Carmen Cabling, Quezon PGS*

CONSUMERS

MARKETS

PRICE

KNOWLEDGE

INPUTS

LOGISTICS

PACKAGING

GUARANTEES

FINANCE

FORMALIZING

PARTNERS



## 2. HOW TO BUILD PARTNERSHIPS?

Partnerships with other organizations may consist of loose associations through which members temporarily collaborate to achieve a specific goal. On other occasions, partnerships may last a long time and gradually evolve into new organizations with their own management and governance structures. There is no rule stating that a short-term partnership can't become a long-term one, or vice versa.

To begin, it is important to ask yourself two questions:

- ▶ “What common interests do potential partners have with my initiative?” Two (or more) entities or individuals will decide to become partners once they have acknowledged their common interests.
- ▶ “What kind of subsidiarity exists with potential partners?” Here, subsidiarity is understood as the principle that partnerships will help resolve issues that individual organizations cannot resolve locally.

Once you answer these two questions, identify your main partnership activities, which will influence the selection of potential partners. These include:

1. **Experience sharing:** The need for mutual support and experience-sharing is the core reason why scattered innovative initiatives must join together. It is hard to imagine a sustainable food system that would grow in total isolation from other local food initiatives. New farmers need experienced farmers to share their expertise; short supply chains managers need to learn from pre-existing distribution systems; consumer groups need organizational frames and working tools to start their collective work. For all these reasons, the answer to the question “with whom to establish a partnership?” is: fellow farmers, fellow consumers, fellow logisticians, fellow retailers and fellow processors.
2. **External communication:** External communication means “communication to a broader audience.” One of the initial challenges is member or customer recruitment. A local food festival based on traditional dishes, for example, would be more effective in this respect than any action established by a solitary group. Organizing such a festival would be the resulting work of a partnership or umbrella organization, already knowledgeable about the target groups and the means to reach them. If there isn't any such active network in the area, then NGOs or local authorities could annually organize this kind of activity.
3. **Advocacy:** Some issues cannot be dealt with separately by a single partnership. This is the case for complex legal issues such as land access, a key dimension of sustainable food systems. Strong alliances, typically over longer periods, are needed for advocacy to be effective. In order to influence decision-makers and legal frameworks, cooperation with specialized advocacy organizations may be more effective than direct ties with elected representatives.
4. **Research:** Several sustainable food system pioneers decided, at an early stage, to partner with a research team. The primary objectives are to conduct research in order to support the innovation's achievements from different perspectives and to produce

new knowledge about sustainability. Scientific demonstrations provide important data that can support advocacy campaigns. However, research cannot only serve these purposes. Systematically investigating the problems that sustainable food system actors are facing in order to find solutions is key.

5. **Access to markets:** Without stable market access, no business can be economically sustainable. Access to markets is built on partnerships: every transaction can be considered a partnership. In order to make these partnerships last, solid supply chains with long-term objectives are needed. Models based on direct sales may ensure long-term, direct, producer-consumer partnerships, though there are other ways of securing market access, including those relying on transparent intermediaries. The important point to remember is that exchanges depend on trust.
6. **Finance:** Some partnerships are created just to mobilize funds, such as fund-raising for advocacy, for operations, or for investments. Depending on the intended multiple uses of funds, partner with different types of organizations.

## CASE BOX

93

### Consumer campaign ¡Que Rico Es! (Ecuador)

In 2009, the Colectivo Agroecológico of Ecuador and the Movement for a Solidary and Social Economy launched an open-ended, citizen-led campaign, entitled “Qué Rico Es Comer Sano y de Nuestra Tierra” ([www.QueRicoEs.org](http://www.QueRicoEs.org)). The initiative connects people and tries to counter the permeation of industrialized food by creating markets for family farmers’ agroecological products and improving rural and urban people’s health and quality of life. They place the responsibility for transitioning to sustainable food systems squarely in the hands of “the people who eat”.

Inspired by the potential of mobilizing the “consumer-citizen” into a political force, in October 2014, Ecuador’s Colectivo Agroecológico launched a new national strategy called “250 Thousand Families”. The campaign, still ongoing, is based on the notion of “responsible consumption” and designed to mobilize a critical mass

of “consumer citizens” to support public policy efforts in favour of “agroecological-healthy food for a healthy society”. They ask consumers to invest at least half of their family’s monthly food/drink budget in direct consumer-producer purchases or sales of organic/agroecological products and Andean crops. The main objective of the campaign is to reach and connect 250 000 families that eat “tasty, healthy and local”. In order to reach that goal, numerous strategies are applied with a focus on visibility, connectedness and identity. Various workshops and fora are organized, and a guide mapping all farmers’ markets in the country was developed. In addition to various organized workshops and fora, the campaign established a bi-weekly newsletter about responsible consumption.

Source: Ross Mary Borja, Fundación Ekorural, Ecuador

To know more, visit:  
<http://www.fao.org/3/a-bs916e.pdf>  
<http://www.quericoes.org>



## TIP 43

### Build partnerships for advocacy work

- 1. Create deliberate partnerships:** With many possible partnership strategies, strategically select which ones are most suitable for your organization. Be very clear about who you want to work with (i.e. people who share your values, and/or share similar objectives), and specifically target these people and groups through various means of communication. Working with partners who share a common mission and vision strengthens resources and generates change in the food system.
- 2. Develop an advocacy strategy:** Make a plan! An advocacy strategy helps everyone understand the situation, analyse the actors, address how change needs to happen, and sets clear goals going forward. A strong advocacy strategy aligns goals for key issues at specific points in time during the project lifecycle.
- 3. Involve partners in all stages of advocacy:** Committed, active engagement, from the earliest stages of the project, enhances and allows for engagement outside the primary circle (e.g. building productive external relationships with policy-makers).
- 4. Identify the strengths of all partners:** Knowing the strengths of each partner maximizes the relationship dynamics and overall project outcomes. Some partners contribute their financial skills, while others have networking capabilities and/or strategic thinking skills. Capitalize on these strengths and interests to keep everyone happy and engaged. Some partners will also naturally be more active than others, while others may require a little more encouragement – that's okay! Building strategic partnerships requires negotiation, patience, and on-going flexibility.
- 5. Build creative connections:** When building a network for advocacy partnerships, think outside the box. Different tools are effective for different settings – identify the best tools for various partners and use them. For instance, set up a conference or convention to bring interested people together, write a journal article for an academic publication to garner support, or attend an educational workshop.





## 3. WHO TO MOBILIZE FOR PARTNERSHIPS?

### 3.1. Fellow sustainable food system actors

Gaining support from fellow actors is challenging. If there is a sense of competition in a small, saturated, niche market, to the will to share successes, failures and plans for the future is most likely absent. If, on the contrary, a sense of community is built through the creation of social capital, collaboration should be easier.

A partnership between fellow actors could be established:

- a. through a formal mechanism like a Participatory Guarantee System (we've found that PGS are good for providing guarantees, but are also a pedagogical tool for group learning and building social capital); or
- b. through experience-sharing meetings to collect latest news from all the different operations and to discuss doubts and concerns (we've found that regular multilateral meetings to exchange on common issues are helpful).

In our experience, restaurants can become excellent partners if their chefs are looking for long-term relationships with suppliers. Of course, the risk is for the producer or the trader, to become dependent on a single market for all of sales. The principle of diversity is important here, in order to avoid creating dependency-based partnerships.





### Box schemes: creating social capital (Ecuador)

In Ecuador, when a partnership was established between the consumers association “Canastas Comunitarias” and the producers’ organization “Asociación de Productores Nueva Generación”, several strategies were promoted from both group leaders to strengthen group cohesion.

The progressive process was grounded in building different types of relationships. Once the groups met and developed a sense of familiarity, a partnership based on values, feelings, interests and shared experiences was established through mutual producer-consumer exchange visits. If producers and consumers know each other, they can understand their respective processes and experiences differently. After each basket delivery, producers participated in consumer evaluation meetings where impressions about delivered products, the quality, the quantity, as well as any other topics of interest were discussed. Another strategy involved giving feedback to members of the producers’ association during working sessions, who also participated in “Canasta Comunitaria’s general assemblies to discuss price-setting, the construction/ strengthening of a guarantee system, seed laws, food sovereignty and responsible consumption.

A space for dialogue helps producers and consumers understand each other, to share with each other and, over time, to establish and weave relationships of reciprocity, also known as social capital.

- ▶ The first step is to create a trust-based relationship.



- ▶ The second step is to determine common principles or guidelines for partner engagement (e.g. while criticism is needed, solutions should also be proposed).
- ▶ Third, the first two steps need to be strengthened and broadened. Markets and basket deliveries must include other activities geared towards the sale and purchase of products that seek to strengthen already established relationships, generate new ones, and foster alliances, interactions and values around food.

All three steps can be achieved through partnership commitment to fulfil required tasks (for example, taking charge of logistics, organizing a practical activity) and to represent the group in different spaces (for example, managing relations with local governments that may involve the need to defend a certain position). A sentiment of valuable contribution should be circulated among members – their inputs such as knowledge, expertise, among others. – that leads to higher levels of group commitment and support.

Source: Ross Mary Borja, Fundación Ekorural

## 3.2. Non-Governmental Organizations

Some NGOs have built a positive public image in their countries of operation. If it is formed adequately, a partnership can attract public attention and increase the initiative's visibility. Partnerships with NGOs may involve certain risks, such as the NGO being perceived as a competitor by the sustainable food system actors. It is important for a new NGO not to replace the current actors in the initiative, maintaining its “support” role, and not more.

CASE BOX

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### Partnership with NGOs (Togo)

In the capital city of Lomé, Togo, the Mytro Nunya cultural centre hosted CSA activities during several years. It was a non-profit association that shared information on international solidarity topics, that had a library, and that organized conferences, debates, concerts and theatre performances. Sustainable development, health and environmental concerns were key values in the civic vision promoted by the centre. Therefore, it seemed quite natural for the centre's staff to connect with local organic producers and to set up

a partnership for its regular customers. A pick-up of the shares, combined with a farmers' market, was regularly organized at Mytro Nunya, taking place in tandem with other activities: movies, library, conferences, and debates.

Consumers were attracted by these kinds of activities, as they sought to engage in new models of responsible consumption. Of course, there isn't one possible solution for reaching potential members – identifying the closest interest groups requires creativity.

*Source:* Judith Hitchman, URGENCI

## 3.3. Policy-makers

Innovations usually draw policy-makers' attention: local representatives are interested in monitoring entrepreneurs' achievements in their territory. They see a potential for producing local jobs and are prone to support actions reinforcing community and social cohesion. Of course, the environmental dimension of sustainable development can also be appealing to some. Strong ties with policy-makers incurs some risks, such as the potential “capture” of the sustainable initiative by a specific political party, used for its own purpose. It is thus necessary, in any such partnership, to clearly state the non-political nature of the innovative system. The strategy used to approach policy-makers may also be risky. For example, if you rely on a personal relationship, all efforts might be lost in the case that a personal conflict emerges or if the person resigns from political duties. Similar to agricultural and marketing practices, the diversification of political relations strengthens the initiative's resilience.



### Finding and approaching policy influencers (Kenya)

The Ecological Land Use Management (ELUM) advocacy strategy was developed by the PELUM Kenya network. Its purpose was to set up a structure to coordinate members' respective advocacy actions. Using an evidence-based approach at the county and national levels, this strategy simultaneously addresses grassroots issues with local communities, such as those related to agriculture, climate change adaptation, land use, budget allocation for sustainable agriculture, and capacity-building.

In 2015, when the National Agriculture Policy was being developed, the network lobbied to include PELUM in the agricultural policy. Relying on PELUM member organizations and their contacts, PELUM representatives approached the parliamentary committee chairperson for agriculture, who then mobilized another

four members of the Parliament and held a breakfast meeting. The policy director in the Ministry of Agriculture, Livestock and Fisheries was also approached by the chairperson of the advocacy committee who had interacted with him in previous forums. Before these meetings, a briefing/paper was written that outlined PELUM's position, comments and inputs regarding the National Agriculture Policy. This report was then shared during the meetings, in addition to supportive researcher-based evidence and data. While it was not easy to convince these key people instantly, PELUM representatives consistently followed-up with memos, informal meetings, verbal briefings and phone calls. The outcome of the process was that the Ministry of Agriculture, Livestock and Fisheries incorporated a clause in the agriculture policy that officially recognized the agricultural use of traditional, indigenous knowledge in agriculture.

*Source Rosinah Mbenya, PELUM*

## 3.4. Researchers

An increasing number of innovations are identified at an early stage and monitored over a long period of time by a partnering research unit – this is especially true for new farming practices (organic agriculture, permaculture). Scientific results are equally crucial to convince fellow farmers and decision-makers, and to improve the initiative's work habits. Yet, there are some associated risks:

1. Knowledge appropriation can benefit competitors (i.e. patenting of intellectual property by dishonest actors).
2. Research results can be unfavourable and reveal weaknesses in your model, which may bring unwanted attention to your initiative.

Make sure to balance how honest and transparent you are with the above risks to ensure that a research partnership is both scientifically sound, and that you will not feel exploited or betrayed. Just like any other partnership, building trust with researchers is essential.

### 3.5. Private sector

Most of the time, partnerships with other enterprises revolve around specific product needs (e.g. collaboration with designers for advertising or packaging) or sector development plans (e.g. partnerships with other farmers, processors, transporters, cooking schools and retailers). The private sector is large and there may be opportunities to partner with national or international enterprises on advocacy campaigns or in setting industry standards that may also be beneficial to sustainable food system actors. It is important to think strategically about how you engage with actors in the private sector because of the risk of “co-optation” of your message, intellectual property (like brands, product ideas) and equitable sharing of benefits (not all private sector enterprises have the same business models; margins and benefits will most likely be calculated differently).

#### TIP 44

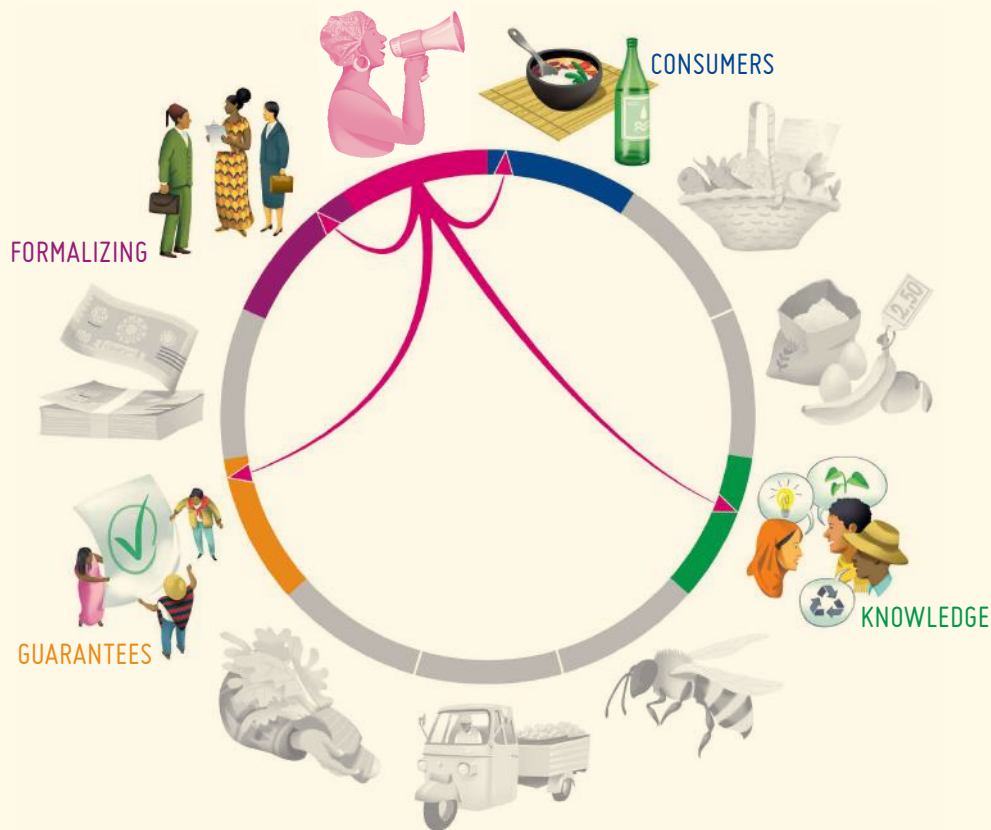
##### Find partners and advocates

- ▶ Not all partnerships need to be permanent. Some may be oriented towards a temporary, single issue, while others may be long-term.
- ▶ Choose your partners wisely, no matter what sector they come from, and make sure you share the same goals.
- ▶ Diversifying your partners according to shared interests is important, though try avoiding partnership overload... this can lead to forgetting your own mission!
- ▶ Advocacy is a partnership, so it is fundamental to institutionalize the change you are making in your food system. However, be careful who you partner with...make sure they are credible advocates for your cause!



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# THE LEARNING ADVENTURE, WHERE TO NEXT?



- ▶ Do you want to partner with consumer groups? Find out what they are interested in by visiting **Chapter 1: Attracting consumers and keeping them engaged.**
- ▶ Are you seeking examples of successful partnerships with researchers? Return to **Chapter 4: Sharing and co-creating knowledge for sustainable production.**
- ▶ Do you need to improve your initiative before partnering with others? Return to **Chapter 10: Formalizing your collective work.**
- ▶ Do you wish to use a PGS to build a partnership? Learn more about this in **Chapter 8: Guarantees for sustainability.**

Or maybe you want to go back to a chapter you skipped? Go for it!



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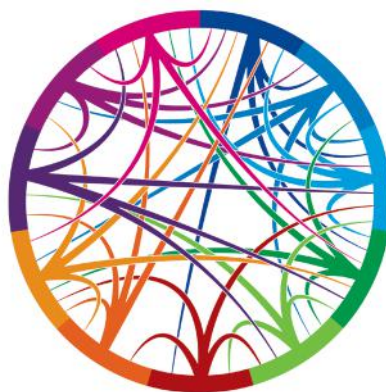
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Sustainable food systems are fundamental to ensuring that future generations are food secure and eat healthy diets. To transition towards sustainability, many food system activities must be reconstructed, and myriad actors around the world are starting to act locally. While some changes are easier than others, knowing how to navigate through them to promote sustainable consumption and production practices requires complex skill sets.

This handbook is written for “**sustainable food systems innovators**” by a group of innovators from Asia, Africa, the Americas and Europe who are leading initiatives to grow, share, sell and consume more sustainable food in their local contexts. It includes experiences that are changing the organizational structures of local food systems to make them more sustainable.

The handbook is organized as a “**choose your own adventure**” story where each reader – individually or in a facilitated group – can develop their own personalized learning and action journeys according to their priorities. The topics included in this handbook are arranged into four categories of innovations: engaging consumers, producing sustainably, getting products to market and getting organized.



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