



WP4 – Participatory foresight analysis

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Deliverable 4.2.

Synthesis report on the future potential role of small farms in FNS in Europe and Africa in 2030 and 2050: results of a foresight assessment

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List of Acronyms

BAU	Business as usual
CC	Climate Change
CSA	Community-Supported Agriculture
FNS	Food and Nutrition Security
NGO	Non-Governmental Organisations
RDP	Rural Development Program (EU)
RR	Reference Region
SALSA	Small Farms, Small Food Businesses and Sustainable Food Security Project
SF	Small Farms
SFB	Small Food Businesses
WP	Work Package



Executive summary

The present document is the second deliverable from SALSA's Work Package 4. It contains the comparative analysis carried out from the 13 regional reports (collected in D4.1) that were gathered the outcomes of the participatory foresight workshop conducted in 13 different regions in Europe and Africa.

One of the main results is the identification of key outcomes to be achieved in order to enhance the potential contribution of small farms (SF) and small food businesses (SFB) to regional food and nutrition security (FNS). These outcomes can be grouped as follows: (1) SF and SFB have knowledge and access to inputs, technology and innovations; (2) SF and SFB have access to value-addition processes; (3) SF and SFB produce a significant share of the regional food supply and are well connected to diverse markets; (4) consumers are aware and value regional SF products; (5) SF and SFB are empowered (politically, economically and socially) and receive financial and technical support from the public sector, and (6) SF and SFB contribute to environmental protection and climate change adaptation through sustainable production, diversification and preservation of genetic heritage.

A second finding stems from the assessment of the role of SF and SFB in regional food systems under alternative future scenarios, defined by a diversity of drivers that shape more enabling or constraining settings for these holdings. The primary insights from the comparative analysis of the regionalised scenario narratives include:

- 1) the contribution of SF/SFB to regional FNS is highly dependent on the social and economic context where they operate, but even in the most constraining scenarios with overall problems of food and nutrition insecurity, they can keep playing a role in securing food to a minority of vulnerable groups.
- 2) the debate on the future of SF/SFB goes beyond their role in FNS, and it is indissolubly linked to other outcomes of the food system, namely the preservation of rural landscapes and environmental services, and the support to employment and rural communities.
- 3) Third, the discussions about these scenarios also revealed the importance that stakeholders give to collective action and cooperation as an essential ingredient not only to seize the opportunities created by enabling factors, but, even more importantly, to overcome and resist the threats that the more constraining scenarios imply.

Finally, after the assessment of the action plans that were developed to achieve the previously identified objectives, this deliverable summarises a number of key messages: (i) Local and regional administrations have in their hands tools to facilitate the integration of local SF and SFB into regional and local markets by means of a diversity of public-private partnerships; (ii) De-bureaucratisation and the simplification and tailoring of administrative requirements are essential to eliminate barriers that are preventing SF and SFB to access markets, public support and business opportunities; (iii) Agricultural cooperatives should professionalise and reinforce their capacity to respond to changing market demands, as well as provide advice and training to



SF, and (iv) SF and SFB should explore diverse forms of collective action and networking along the food value chain to strengthen their position, defend their interests and promote –in cooperation with public administrations- locally SF/SFB sourced food.

1. Introduction

1.1. Objectives of Work Package 4

This Work Package (WP) addresses one of the global objectives of SALSA: to assess the capacity of small farms and small food businesses to contribute to FNS under alternative future scenarios for 2030/50, and to identify the main determinants of the capacity to respond.

For this purpose, and according to the Description of Activities (DoA), the specific objectives of WP4 are:

- To produce a foresight assessment (2030, 2050) in selected reference regions, and to assess what the significance of small farms might be in terms of future food production and supply, and the linkages to food consumption, as well as the preconditions for an increased role of small farms and small food businesses in FNS.
- To assess the potential role that small farms and small food businesses can play in the future (2030, 2050) in FNS. We pay attention to growth in rural population densities in some countries, taking infrastructures and supply chains into consideration.
- To assess the potential role of the resilience of small farms and small food businesses in different types of regions in Europe and Africa, and in the face of shocks and foreseen climate changes.

Table 1 presents an updated simplified guide to understand which WP is mainly responsible to analyse the data and report the answers. SALSA's research questions addressed by WP4 are those highlighted with the red square below.



Table 1. FNS dimension, hypothesis, related research questions and reporting WP

FNS Dimensions	Hypothesis	Research Questions	Reporting WP	Deliverable															
Food Availability	Hypothesis 1. SF is a relevant source of sustainable food production (availability) for many regional food systems	1. Which food system actors and activities are involved in the generation of the FNS outcome in the reference region?	WP3	D 3.1 (Regional level) D 3.3 (Comparative analysis)															
		2. What is the estimated production capacity of SF in each region	WP2	D.2.4.															
		4. What is the position (and importance) of SF in the Regional FS	WP3	D.3.1 (Regional level) D.3.3 (Comparative analysis)															
		5. How are SFB connected to Small farms and the regional food system?	WP3	D.3.1 (Regional level) D.3.2. (Comparative analysis)															
Food Access	Hypothesis 2. SF and SFB provide food and incomes for rural households (access and utilization) in many regional food systems	3. What is the relevance of non-marketed SF production for rural HH?	WP3	D.3.2.															
Food Utilization					Food Stability	Hypothesis 3. SF and SFB increases food systems' diversity thereby contributing to its resilience (stability)	7. What supports and threatens the role of SF in the food system?	WP5	To be provided by WP5 leader	8. What have been the trajectories of SF?	WP3	D.3.2	9. What are SF and SFB perspectives for the future?	WP4	D.4.2.	10. What are SF resilience strategies to face social, economic and environmental constraints?	WP3; WP4	D.3.2. and D.4.2.	Cross Cutting Issue
Food Stability	Hypothesis 3. SF and SFB increases food systems' diversity thereby contributing to its resilience (stability)	7. What supports and threatens the role of SF in the food system?	WP5	To be provided by WP5 leader															
		8. What have been the trajectories of SF?	WP3	D.3.2															
		9. What are SF and SFB perspectives for the future?	WP4	D.4.2.															
		10. What are SF resilience strategies to face social, economic and environmental constraints?	WP3; WP4	D.3.2. and D.4.2.															
Cross Cutting Issue		6. Which types of SF are identifiable within each region?	WP3	D.3.2															



1.2. WP4 structure

This foresight assessment is built upon SALSA’s Conceptual Framework (WP1, D1.1) and Analytical Framework (D1.2) and further elaborates the information produced in WP3. Data integration was mainly based on participatory methods of scenario discussion adapted to the particular needs of this WP. Due to the significant resource demand of participatory processes, and as defined in the Grant Agreement, we selected a subset of 13 regions representing the different types of food systems in Europe and Africa studied under SALSA project.

SALSA’s Work Package 4 is structured in four tasks, namely:

- Task 4.1 Scenario preparation
- Task 4.2 Selection of regions and participants
- Task 4.3. Foresight analysis
- Task 4.4 Comparative analysis and synthesis

The results from these tasks are compiled in the deliverables of Work Package 4. Table 2 lists WP4’s deliverables and the tasks they report on:

Table 2. WP4 Deliverables and corresponding Tasks

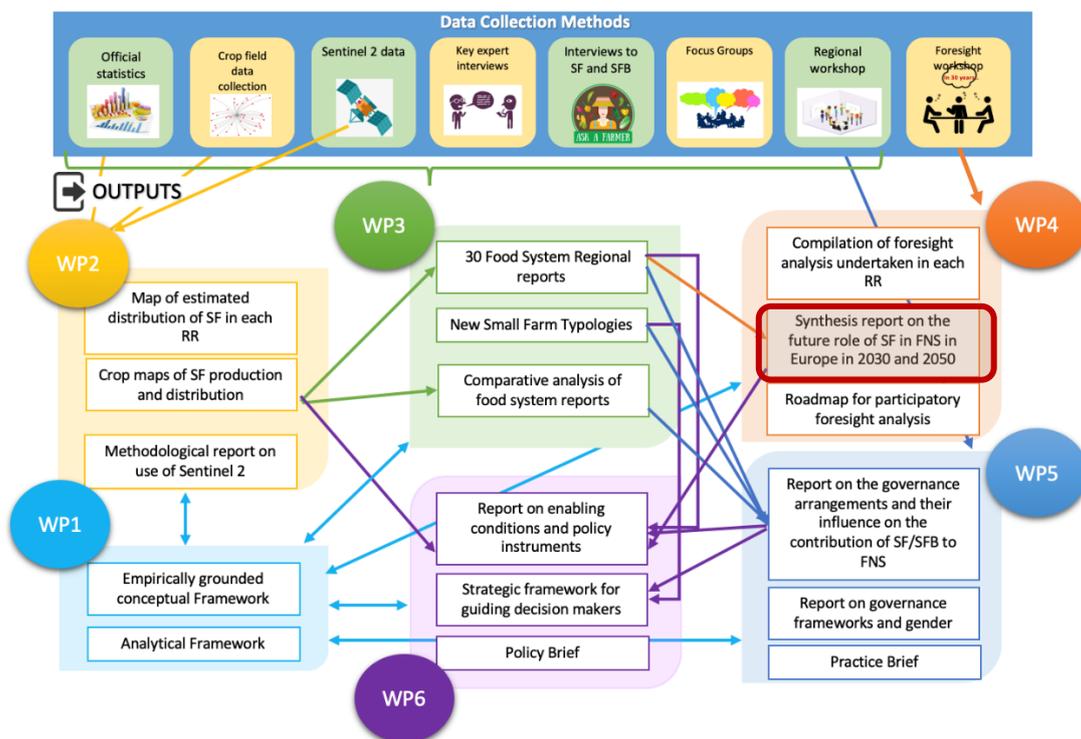
WP4 Deliverables	WP4 Tasks
D.4.1 – Report from each region where the foresight analysis is undertaken, on the future potential role of small farms and small food businesses in FNS (reports based on a common reporting template).	Task 4.1 Scenario preparation Task 4.2 Selection of regions and participants Task 4.3. Foresight analysis
D.4.2 – Synthesis report on the future potential role of small farms in FNS in Europe and Africa in 2030 and 2050: results of a foresight assessment.	Task 4.4 Comparative analysis and synthesis
D.4.3 – Roadmap for participatory foresight assessments at regional level, in contrasting regional contexts across Europe and Africa, building on the evaluation of the whole process of WP4.	Task 4.1 Scenario preparation Task 4.2 Selection of regions and participants Task 4.3. Foresight analysis Task 4.4 Comparative analysis and synthesis

The present document constitutes the second deliverable from this work package (D.4.2.), which comprises the results from Task 4.4, which consisted in a comparative analysis of the results from the participative foresight assessment previously carried out under Task 4.3., in order to produce an overall assessment of the potential role of small farms and small food businesses in regional FNS in 2030 and 2050.

Figure 1 below shows the main interconnections between all SALSA’s WPs. Output for deliverable 4.2. is highlighted with a red square.



Figure 1. Main outputs per WP and data flows



The next step will be the assessment of the whole participatory foresight process that has taken place in 13 different regions, 9 European and 4 African, mobilizing more than 240 participants (see Table 3), taking into consideration the feedback provided by the stakeholders and included in the individual reports (D.4.1.), the knowledge gained along the project in the course of discussion and the methodological adaptations within the consortium, grounded in the existing literature on stakeholder engagement and foresight. This later assessment will be included into the Deliverable 4.3.



Table 3. Regional participatory foresight workshops held

Country	Country code	Region	Nº of participants (women)	Authors of the Regional workshop reports
Cape Verde	CV	R2 Santiago Island	17 (8)	Baptista, I.; Sequeira, E.; Ferreira, V.; Rocha, R.; Gonçalves M.L. and Fortes A.
Ghana	GH	R7 Gushegu District	37 (7)	Yeboah, R.W.N.; Fearon, J.; Ayambila, S.; Akaribo, F. N. and Adolph, B.
Greece	GR	R9 Larisa	13 (5)	Karanikolas, P.; Goussios, G. and Oikonomopoulou, E.
Italy	IT	R11 Pisa	7 (1)	Prosperi, P.; Galli, F.; Fastelli, L.; Palmioli, L.; Di Iacovo, F. and Brunori, B.
Kenya	KN	R13 Ugunja Sub County	38 (17)	Atela, J.; Tonui, C. and Obiero, W.
Latvia	LV	R14 Latgale	20 (13)	Šūmane, S.; Ādamsone-Fiskoviča, A.; Ķīlis, E.; Grīviņš, M. and Tisenkopfs, T.
Malawi	MW	R17 Balaka District	21 (5)	Machira, K.; Tione, G.; Ebiem, E.; Makana, P.; Miracle, G.; Tonui, C. and Atela, J.
Norway	NO	R18 Hedmark	5 (1)	Zahl-Thanem, A.; Brigham, M.; Hansen, L.; Almaas, H. and Bjørkhaug, H.
Poland	PL	R19 Rzeszowski	24 (9)	Czekaj, M.; Tyran, E.; Żmija, K.; Płonka, A.; Satoła, Ł. and Szafrńska, M.
Portugal	PT	R23 Oeste	12 (9)	Hernández, P. A.; Fonseca, A. and Esgalhado, C.
Spain	ES	R26 Castellón	16 (8)	Ortiz-Miranda, D.; Moreno-Pérez, O.; Martinez-Gomez, V.; Cerrada-Serra, P.; Arnalte-Alegre, E. and Arnalte-Mur, L.
Romania	RO	R25 Giurgiu	14 (7)	Barbu, R.; Toma, I.; Alexa, A.; Palau, E. and Stanciu, I.
UK	UK	R29 Perth and Kinross, and Stirling	19 (10)	Duckett, D. and Noble, C.
			243 (100)	

Participants were drawn from different categories: farmers and related organisations (including producers federations and cooperatives), food business (including inputs providers, food processors, retailers and supermarkets), local communities (local action groups) and civil society (e.g., consumers organisations), university & research centres, professional groups (e.g., consultants, vets) and administration & public bodies (policy makers and officials from different departments, rural advisory centres, development agencies). Together with participants, 67 facilitators were involved in the 13 workshops (on average 5.15 facilitators per workshop) of which 35 were women (52.2%). Altogether there were 310 people engaged in this activity of which 135 were women (43.5%).

The workshops produced three main outcomes that were reported –according to a common template– in 13 regional reports. The outcomes were: (i) Assessment of the **potential role of SF and SFB** to contribute to regional FNS and identification of objectives; (ii) Developed **action plans** to achieve those objectives and (iii) Developed **scenario narratives** regionally adapted from the common global scenario framework.

The reports also included an assessment of the **feasibility of all regional action plans** under different scenarios that was elaborated after the workshops by the SALSA research teams



1.3. Structure of Deliverable 4.2.

The structure of this comparative analysis follows the logic of the foresight workshops. They start with a collective discussion about how stakeholders envisioned a future in which SF and SFB would be playing an outstanding role in regional FNS (section 2.1 this deliverable). This initial discussion unfolded the several ways by which SF/SFB could contribute to FNS, so that these ways could be translated into objectives. In total, 67 objectives were identified regarding the contribution of SF to food production and FNS, and that of SFB to FNS (see D4.1). Section 2.2 clusters these objectives in similar groups.

These objectives were the departing point to elaborate specific action plans to achieve them using a backcasting approach. With the aim to assess the viability of those action plans under alternative future scenarios, participants were asked to develop regionalised scenario narratives from a common scenario framework. A comparison of these regional narratives per scenario is made in Section 2.3. Later on, Section 2.4 contains the comparative analysis of the action plans (grouped by clusters of objectives) and the way the elements of the scenarios would condition their feasibility.

Finally, the deliverable summarises, from this comparative analysis, a number of key messages addressed to the key actors that, according to the participants in the workshops, have in their hands the possibility to carry out the necessary actions to reinforce the potential contribution of SF and SFB to regional FNS.

2. Results of the comparative analysis

2.1. Visioning

The stakeholders' **VISION** about the future roles of SF and SFB in regional FNS addressed SF's contribution to regional food production, SF's contribution to regional FNS and SFB's contribution to regional FNS.

Some findings regarding this vision included:

- The **future contribution of SF to farm households' FNS** in Africa is seen not so much as self-provisioning as through the generation of income. More market oriented production would increase farm income and increase the family's economic access to food. In Mediterranean European regions self-provisioning was not mentioned in the prospective exercises, despite the levels of self-consumption found at present (see Deliverable 3.2). In contrast, in Eastern European regions, the future role of SF in self-provisioning diverse and nutritious food was explicitly addressed.
- The **access to and from non-regional markets** (national or international) was addressed as a relevant driving factor, although with different connotations. In several African and European regions SF's and SFB's access to external markets is seen as a necessity to both secure the viability of SF and SFB effectively contribute to regional FNS. In contrast, trade openness is perceived as a future threat due to the imports' competition with local production in regions like those in Cape Verde or Scotland.



- There is a generalised demand to develop **farm advisory services (FAS) specifically targeted to SF and SFB**, providing advice and supporting the acquisition of new productive, marketing and entrepreneurial skills.
- In most European regions the future of SF and SFB is regarded to be linked to the recovery of traditional local food products and practices, but based on new knowledge and technological development (also called “**retro-innovation**”). This revalorization of traditions becomes a key contribution of both SF and SFB to the preservation of regional identities and environmental conservation. Moreover, technological innovation is also regarded as a way to secure traceability of SF’s products.
- A greater **orientation towards high quality, nutritious and healthy products** is perceived as a transversal element for the future of SF and SFB in the stakeholders’ vision. In some regions, this is also linked to the adoption of certified organic practices. There are two common elements around this orientation. First, there is a generalized view that the future of SF and SFB would require **more aware consumers**. Second, in several regions, the need of new dedicated **quality schemes** for SF would be necessary. Interestingly, the existing EU territorial quality schemes (Protected Designation of Origin, Geographical Protected Indications) were only mentioned in one region in order to argue that they do not adapt to the needs of SF/SFB due to their complexity and bureaucratic burden.
- The way SFs and SFBs access markets is mediated by **public (health, hygiene, tax) regulations**, with different implications depending on the region. In African regions, the emphasis was on the necessity of SF and SFB to be able to achieve and observe the existing health and hygiene regulations as a precondition to both access more value-added markets and contribute to consumers’ food safety. On the contrary, in most European regions. These regulations would need to be adapted towards more small-scale tailored and flexible regulations.
- The **relationship between SF and SFB** is also regarded as an important factor to strengthen the future viability and potential contribution to regional FNS. In some cases, as SF can upgrade by means of developing on-farm processing or direct selling, so the farm would also include SFB. In other case, the cooperation of independent SF and SFB would be a way to generate synergies.
- In general, stakeholders referred to **cooperation** as an essential component for the future of both SF and SFB. This cooperation can be in the form of SF’s or SFB’s cooperatives, but also in more or less formal groups of producers, associations, federations, joint selling platforms, SF’s and SFB’s networks for exchanging experiences and knowledge or some forms of multi-actor interactions.

2.2. Clusters of objectives

The visioning exercises gave rise to the identification of 67 **PRIORITY OBJECTIVES** for the future of SF and SFB, as well as for their contribution to regional FNS in the 13 regions. These objectives are formulated as outcomes, as they become the targets of the actions plans developed by the participants in the workshops. They were clustered as follows:

- **Objective 1.** SF and SFB have knowledge and access to inputs, technology and innovations
- **Objective 2.** SF and SFB have access to value-addition processes



- **Objective 3.** SF and SFB produce a significant share of the regional food supply for given products and are well connected to diverse markets
- **Objective 4.** Many more consumers are aware and value regional SF products
- **Objective 5.** SF and SFB are empowered (politically, economically and socially) and receive financial and technical support from the public sector
- **Objective 6.** SF and SFB contribute to environmental protection and climate change adaptation through sustainable production, diversification and preservation of the genetic heritage

These clusters point out areas where further efforts are required to enhance SF and SFB contribution to regional food production and FNS, leading to possible recommendations.

2.3. Discussion of scenarios' narratives

This section is structured around the four scenario narratives used and developed during the foresight exercises in each of the 13 regions, namely BAU (Business-As-Usual), MIRROR, ENABLING and DISRUPTING. The scenarios provided a common set of global contexts from which workshop participants' discussions would develop (see deliverable 4.1.). The design of these scenarios combined both primary information from regional experts and existing foresight studies on agriculture and FNS. This information enabled the identification of relevant drivers of change that shape the future of SF and SFB and their contribution to regional FNS. A set of combinations of drivers and their possible states constituted the skeleton for the scenarios which, in order to facilitate its use by participants in the regional workshops, were presented in the form of short narratives, giving coherence to the storyline.

For each scenario, there is a description of the common narrative used in all the regions, the list of names that this scenario was given in each region, and a comparative analysis across the 13 regions of the narratives developed for the scenario. The section concludes with a discussion on the usefulness of this analysis.

2.3.1. Scenario BAU

Common scenario narrative

This is a scenario characterised by the **high concentration** of the food chains that operate in **liberalised world markets** and facilitate both food imports and exports. The public sector intervenes in the agri-food sector by means of a **strong framework of public regulations**, although the public budget and **expenditure is low**.

Access to natural assets (land, water, etc.) is **constrained** due to environmental degradation, but SFs and SFB's **access to managerial and technical innovations** (research outcomes, knowledge stocks) is very good.

The population has **low levels of poverty**, and is increasingly **concentrated in urban** centres, at the expense of a demographic **decline in rural** areas.

In this liberal environment, in which individualistic behaviour prevails and **collective action is generally weak**, consumers are aware of the **nutritional and environmental implications of their food habits**, but do **not show great social values** in terms of solidarity and awareness about small farms' problems.



The following table compiles the names this scenario was given by the participants in each regional workshop.

Table 4. Regional names for Scenario BAU

Country	Country code	Region	Scenario name
Cape Verde	CV	R2 Santiago Island	“Dizaraska” (find your own way)
Ghana	GH	R7 Gushegu District	Duniya Be NyaXsa (The world is not “sweet”)
Greece	GR	R9 Larisa	Between euphoria and dystopia
Italy	IT	R11 Pisa	Between wishing and fishing
Kenya	KN	R13 Ugunja Sub County	Structural Adjustment Era
Latvia	LV	R14 Latgale	(Changing) with the times
Malawi	MW	R17 Balaka District	Structural Adjustment Era
Norway	NO	R18 Hedmark	The Liberalistic Scenario
Poland	PL	R19 Rzeszowski	New consumer
Romania	RO	R25 Giurgiu	Back to the Future
Portugal	PT	R23 Oeste	Agri-future: Innovation and differentiation
Spain	ES	R26 Castellón	Lost in liberalisation
UK	UK	R29 Perth and Kinross, and Stirling	Surviving not thriving

Comparative analysis

This is a scenario comprised of the main current trends in the agri-food sector and the overall economy, observed today. Although this was not indicated to the participants in the workshops (the names of the common scenarios were not provided), many rapidly associated this scenario with the continuation of the same processes that, from the perspective of stakeholders, are negatively affecting both SF and SFB at present. This is quite evident in some regions, where this scenario led to a decline of the number of SF and SFB (LV), the marginalization of SF (GR) as they have become economically unsustainable (NO), with difficulties to respond to markets demands (PT), and aggravated by the severe impacts of climate change (CV). The **lack of societal awareness** of regional SF and SFB, which would also explain the nonexistent public support, is an important driver of this crisis. Interestingly, although this is a scenario in which collective action and willingness to cooperate is low, participants in the workshops tended to insist in introducing it as a crucial component¹ of almost any mechanism for SF and SFB to adapt to this complicated setting (CV, PL, PT, ES, IT). In any case, the low SF/SFB targeted **public expenditure** is considered a major constraint, as it is considered crucial to support adapted R&D (GR), to compensate unbalanced competitiveness (PL), to adopt technological developments (UK) and for SF/SFB investments to undertake the necessary changes (ES), leading to a reduction of the number of business (PL, LV).

Participants payed also attention to international **trade openness**, as it is expected to have differential impacts. Indeed, while the difficulties for SF/SFB to compete with cheap food imports was highlighted

¹ This is very much in line with the emphasis given to collective action in the development of action plans (See below)



(NO, ES, UK), new opportunities for quality food exports from SFB were also acknowledged in other cases (UK, Feta cheese in GR, wine in PL and IT).

In such a situation, where a majority of consumers is almost exclusively concerned about the nutritional and environmental implications of their **food habits**, the only way for SF and SFB to maintain their activity is to differentiate their produce through quality and the search of urban niche markets (RO, NO, LV, PT), while the most dynamic ones could even take advantage of the opportunities of open international markets for high quality food (GR, RO, UK, IT). Moreover, some SF/SFB specialize in agro-tourism, an activity that is less subjected to foreign competition (ES, LV, PL, UK, PT). Though, the opposite could happen in NO where the countryside and nature become less accessible due to overgrowth with bush and trees. The deterioration of the **rural landscape** can adopt other forms, as in the UK, where the expansion of large farms leads to the removal of hedges and trees, as well as to the reduction of environmental protection areas. Conflicts may arise regarding water access (CV). In general terms, the shift of the environmental conditions due to climate change complicates agricultural production (GR, RO, NO, UK, ES, LV), though it could allow new areas to produce new crops (like wine in PL, or fruits in mountain areas of ES).

The deterioration of the rural environment is parallel to that of its **socio-economic fabric**. Rural areas depopulate, pushed by unemployment (GR, RO) in part explained by the growing automatisations of agriculture (RO). The lack of farm succession would be aggravated by costly environmental obligations to be undertaken by SF (LV). The negative spiral of fewer SF/SF and less rural tourism has led to schools and health care facilities to close down (NO), making rural living harder and aggravating rural exodus.

In summary this is a scenario where the relative weight of SF and SFB has kept declining, both in the regional food systems and in their role in contributing to **regional FNS**, as the shrinking number of small holdings tends to specialize in small niche food and leisure urban markets. The most prominent exceptions to this irrelevance seems to be in NO and CV. In NO, the availability of food in most remote rural areas (beyond the interest of big retailers) keeps depending on the few remaining local SF and SFB. These remote areas are precisely the most vulnerable to food shortages due to extreme weather events, so they can suffer food insecurity events. Apart from this case, there are no mentions of food or nutrition security problems for the overall region. Similarly in CV, rural areas may suffer lack of nutritious food due to the impacts of extreme weather events, as their access to food still depends on the local small farms, which are in a situation of vulnerability and decline.

In short, this seems to be more a scenario of rural crisis that runs in parallel to a SF's and SFB's crisis rather than a food insecurity scenario. According to the regional reports, most of the discussions about the implications of this scenario revolved around the overall negative impact of the drivers on SF and SFB, and how this would affect the rural environment and rural communities. Yet, there was not a great concern (as reported by the research teams) about the impact of this scenario in the future situation of regional FNS.

2.3.2. Scenario MIRROR

Common scenario narrative

The food chains show a **low degree of concentration** as also there is **low degree of openness of international markets** for both exports and imports. There is a **remarkable allocation of public budget**



to the agri-food sector, and the legal requirements conditioning SF's and SFB's activities are **relatively weak and flexible**.

Access to natural assets (land, water, etc.) is **easy for SF and SFB**, but SF's and SFB's **access to managerial and technical innovations** (research outcomes, knowledge stocks) is poor and difficult.

Population has **high levels of poverty**, with a demographic **increase of population in rural areas**.

In this framework, **collective action and advocacy of social values are common** and practised throughout the society, but consumers are not aware about the **nutritional and environmental implications of their food habits**.

The following table compiles the names this scenario was given by the participants in each regional workshop.

Table 5. Regional names for Scenario MIRROR

Country	Country code	Region	Scenario name
Cape Verde	CV	R2 Santiago Island	Pessimistic
Ghana	GH	R7 Gushegu District	"Disomi"- Indifferent (a state where one is indifferent because one is not happy and not sad at the same time)
Greece	GR	R9 Larisa	An ambivalent introversion
Italy	IT	R11 Pisa	Deeply re-generative
Kenya	KN	R13 Ugunja Sub County	Green Revolution Era
Latvia	LV	R14 Latgale	Encapsulation
Malawi	MW	R17 Balaka District	Wellcome to Millenium
Norway	NO	R18 Hedmark	(not discussed)
Poland	PL	R19 Rzeszowski	(not discussed)
Romania	RO	R25 Giurgiu	Story times
Portugal	PT	R23 Oeste	(not discussed)
Spain	ES	R26 Castellón	Bye bye globalisation
UK	UK	R29 Perth and Kinross, and Stirling	Hands off my chicken!

Comparative analysis

Although this scenario was presented, as the others, as a mere combination of drivers/states, in some workshops participants rapidly framed it in a specific and consistent **political setting**. Indeed, in several workshops, this scenario was framed as the result of deep economic and socio-political changes in the previous decades: a rise of anti-globalisation populist nationalisms (ES, RO), democratic deterioration (ES) and militarisation (ES, UK), leading to dictatorships (LV), as well as breaking international agreements. This scenario could had seemed 'dystopic' some years ago, but it would become trendier after the recent changes in the international arena (Brexit, rise of nationalist movements, emerging protectionist policies).

It is also a scenario where the State implements active budgetary policies in favour of agriculture, expending public resources to boost farms' productivity. Nevertheless, this leads to corruption (MW,



L) and clientelism (MW, GR). In Latvia, the State concentrates this support in a subset of selected farms that produce almost exclusively for public meals that the State provides to poor consumers. This creates an 'elite' of farms that are selected to participate in this system (though become highly dependent on the State) and provokes tensions and conflict with the rest of farms that do not receive this priority support.

There are discrepancies regarding to which extent these policies favour SFs and SFBs or not. In some regions (RO) it is supposed to be positive, as SF/SFB are much more recognized and engaged in the political arena, both nationally and locally. In other regions, this political regime prioritizes a core of SF (that in addition could start to concentrate land) at the detriment of the remaining majority (LV). Furthermore, there are regions where, this does not mean SF/SFB to be sufficiently considered and targeted by these policies (KN).

The two main drivers that centred an important part of the stakeholders' debates were trade openness and access to technology and knowledge. The debate revolving around the implications of **trade openness** for SF/SFB has been constant all along the project and reflects its differential impact across farming systems and regions. On the one hand, the restrictions to international trade impact importantly on those farming systems that are dependent on imported inputs (grain-based livestock) or have been traditionally export-oriented, either mass production (citrus, ES) or quality niches (FETA cheese GR, wine IT). Under this scenario, these sectors have undergone a deep crisis, leading to some productive reorientation (e.g. grazing-based small ruminants), and other commodities in export-oriented sectors (fresh fruits ES, GR) where the production surplus provokes price downfall. On the other hand, trade restrictions limit food imports, affecting food availability –in particular on island regions (UK and CV)- and increasing food prices –which complicates affordability for poorer consumers (LV).

The other crucial driver under this scenario are the difficulties for SF and SFB to **access technology and knowledge** to adopt managerial and technical innovations. This point was very much mentioned by the participants of the workshops as a crucial ingredient of the potentially negative implications of this scenario for SF/SFB and the regional FNS. Indeed, lack of access to innovations prevents the 'reboot' of the regional food system to adapt to this closer economy (LV), leads to a decline of farm productivity (CV, KN, MW), forces SF to specialize in few products reducing the diversity of food supply as farms maximise efficient specialisation (UK), leads to the use of farming practices and inputs less environmentally friendly (UK, KN, MW). In general, there are several mentions to how this factor affects very negatively the adaptive capacity of SF/SFB to climate change.

This scenario gave also rise to many questions regarding its rural and environmental implications. Regarding the **rural impact**, with the only exception of RO –where this scenario boosts community development, attractive and multifunctional countryside and adequate rural services and infrastructures - this scenario gives rise to growing rural poverty (CV, UK, GH, MW, IT) and food insecurity (LV). In some cases rural population inflows are motivated by the impact of climate change in urban areas, MW, UK) or higher urban poverty and unemployment due to the dismantling of export-oriented industry (ES). In this later case (ES), this inflow increases labour availability and reduces salaries in rural areas (?) that, together with the lack of technological progress, shapes labour-intensive SF.



Regarding the **environmental implications**, all the mentions point out how growing rural population, the increase of the number of SF, the weak regulatory role of the State (in particular regarding the use of agro-chemicals and the preservation of natural areas) and the low consumers' environmental awareness (CV, UK) provoke pressure over natural resources (firewood, charcoal in MW), environmental degradation (GH, UK), and agricultural occupation of forest land (KN) and protected areas (UK).

Finally, this scenario clearly increases the role of both SF and SFB in **regional FNS**. The public support and the lack of updated mechanisation that would benefit larger farms (GR) increase the number of SF and SFB that are key food suppliers in settings of external trade restrictions. Nevertheless, this more prominent role does not prevent a deterioration of regional FNS, as the lack of availability due to trade restrictions can be hardly compensated by SF/SFB production having constraints to introduce managerial and technical changes in face of climate change, that can mean new pest and diseases (UK). Moreover, consumers' lower awareness about the nutritional implications of food habits and? of the provenance of food is also explained by the contraction of food choice options (UK, ES). In short, food becomes scarce to the extent that farm robberies (LV) can become frequent and will necessitate additional surveillance methods (UK).

In short, this scenario includes some future trends that would remove some current negative conditions for SF/SFB (e.g. food chain concentration, lack of public support), but according to the participants in several workshops, it creates a setting that put in risk regional food security in all its four dimensions: availability due to the limitations of SF/SFB to compensate the lost food imports and a decline of food diversity; access to more expensive food by a poorer population; utilisation by a population that has become less demanding due to the limitations of the food offer, and, in particular, stability due to the climate risks and the inability to resort to adapted technologies. Even the possibilities for collective action and cooperation that this scenario allows seem not to be, from the stakeholders' view, enough to compensate these constraints.

2.3.3. Scenario ENABLING

Common scenario narrative

The food chains show a **low degree of concentration** as also there is **low degree of openness of international markets** for both exports and imports. There is a **remarkable allocation of public budget to the agri-food sector**, and the **legal requirements** conditioning SF's and SFB's activities are **relatively weak and flexible**.

Access to natural assets (land, water, etc.) is **easy to SF and SFB**. Likewise, their **access to managerial and technical innovations** (research outcomes, knowledge stocks) is very good.

Population has **low levels of poverty**, with a demographic **increase of population in rural** areas.

In this framework, **collective action and advocacy of social values are common** and practised throughout the society, with consumers being quite aware about the **nutritional and environmental implications of their food habits**.



The following table compiles the names this scenario was given by the participants in each regional workshop.

Table 6. Regional names for Scenario ENABLING

Country	Country code	Region	Scenario name
Cape Verde	CV	R2 Santiago Island	Rural prosperity
Ghana	GH	R7 Gushegu District	Middle developed world
Greece	GR	R9 Larisa	Diversify or die
Italy	IT	R11 Pisa	(not discussed)
Kenya	KN	R13 Ugunja Sub County	(not discussed)
Latvia	LV	R14 Latgale	Fairyland
Malawi	MW	R17 Balaka District	Post millennium
Norway	NO	R18 Hedmark	Thriving Local Communities
Poland	PL	R19 Rzeszowski	Unreachable dreams
Romania	RO	R25 Giurgiu	(not discussed)
Portugal	PT	R23 Oeste	On the way to Utopia
Spain	ES	R26 Castellón	Resurging of <i>agro-ruralisation</i>
UK	UK	R29 Perth and Kinross, and Stirling	Hollow victory

Comparative analysis

This scenario was designed to shape what was, in principle, expected to be the most favourable situation for SF and SFB. Although the participants in the workshops were not given that name (“enabling”), they rapidly understood this, which is reflected in the name given in several regional workshop (see above). Yet, as it will be developed below, this combination of positive states gives rise, according to the stakeholders, to certain threats and risks. Contrariwise to the previous scenario, this one is not so politically framed, but in a majority of cases is associated to a context of economic wellbeing.

An interesting aspect of this scenario is the way it gives rise to a **differentiation of SF** within regions, more evident than in other scenarios. Indeed, the combination of public subsidies, innovation opportunities for both food and non-food agricultural activities boosted by new technological developments, consumers’ food demands and the different objectives of small farmers lead to a diversity of pathways. This is quite evident in PL, where public subsidies are devoted to facilitate the retirement of small farmers wanting to leave the farming activity. This has facilitated the enlargement of some neighbouring SF, and has also facilitated (together with additional financial support) the setting-up of new farmers, particularly newcomers from urban areas, well-educated and with entrepreneurial skills. These new farmers have contributed to diversify food production to compensate lower food imports. However, the strong financial support and social assistance are also maintaining a large group of farms that are dependent on public support, do not develop a market oriented activity and produce exclusively for subsistence. This enabling scenario makes possible the market integration of ‘conventional strugglers’ (CV). In other regions (GR), subsistence self-provisioning SF tend to disappear as well as those with less innovation capacity (ES), and there are more hobby farms. In other cases, the high number of SF push some of them to specialise in non-food agricultural activities (LV).



As a consequence of this differentiation, some conflicts between farmers could come up, as between natural farming innovators and high-tech innovators (LV), industrial and neo-pastoral farmers (NO), expanding newcomers and 'inefficient' subsistence farmers (PL). The rise of competition between farmers was mentioned in some workshops (LV).

Again, **trade restrictions** are considered a source of vulnerability in several ways: for export-oriented farming systems (GH, GR, UK), not allowing regional food availability in times of low regional production (ES, UK) or restricting access to technological solutions that are not found regionally (GR).

The good **access to technological and managerial innovations** keeps playing a role in this scenario, though it seems its relevance attenuates due to the favourable conditions provided by other drivers. This accessibility can facilitate SF/SFB diversification (GR, PT), the adoption of environmentally friendly practices (GR, LV) and the development of non-food agricultural activities (LV). However, it also facilitates the increase of productivist intensification (UK, PL, LV). Moreover, the enabling public support to SF/SFB can end up creating a 'comfortable' setting so that several SF/SFB can have not stimuli to innovate (PL, NO).

The **weaker regulatory** activity of public authorities does not necessarily result in a deterioration of **food safety**. This is so because the strong collective action (eased by the proximity between actors) and the high awareness of consumers create networks and traceability systems that guarantee food safety (ES, LV, GR), and consumers have more options to influence how SF and SFB operate (LV, NO). There is a kind of revival of short food supply chains and local trade (PL, LV, ES, GR) where conscientious **consumers** play a driving role in their creation and development. In this scenario, diets change. They become more adapted to regional products and seasonality (LV), more quality demanding (PL, GR, NO) and less meat –which means less sheep production in the UK and less grain-fed livestock in NO. In the UK, the trade constraints reduce the diversity and quality of food available, consumers become totally dependent of regional food and farmers, which also deteriorates farmers' image.

In contrast, **weak regulation** of agricultural production is understood as a risk for the **environment** in some cases. In the UK, it is expected to increase of the use of agrochemicals (herbicides, fertilisers) by SF, in order to increment their production to feed the population in this closer economy, leading to biodiversity loss. In NO, the lack of zoning regulations will provoke the conversion of farmland to other uses reducing the land available for food production, making "harder to find a quiet piece of untouched nature". However, this scenario contains other positive implication for the environment, namely the reduction of forest fires (PT, ES, GH) due to the increase of agricultural activity in rural areas and the reversion of farmland abandonment. This scenario of greater rural land occupation could lead to some problems regarding the presence of wildlife fauna (GH), though in this region there is a lot of available arable land.

The **rural implications** of this scenario received attention in the workshops. In general terms, it is associated to the growth of the rural population (one of the elements of the scenario) and a dynamic rural economy (ES, CV, LV, GH, GR, NO, GH), in some cases linked to the spread of non-food processing activities of agricultural products and by-products (ES, CV, LV), with more people working in rural areas (GH) in a diversified agri-food sector (ES). Jobs and housing are given effective prioritisation (UK), and rural communities are thriving (NO). However, this is also increasing pressure over land (CV) and stronger land use competition (GR, UK).



In general terms, this is a scenario that, similarly to scenario MIRROR, increases the **role of SF and SFB in regional food systems**. But unlike MIRROR, this one does it in a way that guarantees **regional FNS** in most of the cases, as dynamic SF/SFB can increase and diversify food supply (though in some regions imported exotic food will not be available anymore ES, UK) to compensate the reduction of food coming from abroad. There are, yet, some black spots in this overall positive setting, which become potential sources of vulnerability. This necessity of increasing productivity is linked to intensification (ES, UK, GR) that can lead to the spread of new pest and diseases (ES) or pollution (UK). The impact on food prices is uncertain, from price increase and lower affordability due to imports restrictions (ES, UK), to oversupply of food and price decline of oversupply that cannot be exported (GH, CV) – which could lead to farmers' poverty and smuggling activities. In any case, as it has been shown along this scenario description, the most vulnerable case is that of the UK, where the participants in the workshop stressed the way climate change complicate food production both inside the region and abroad which, together with the closing of trade relations, would bring on a situation of food shortages.

2.3.4. Scenario 4 DISRUPTING

Common scenario narrative

The food chains show a **high degree of concentration** as also there is a **high degree of openness of international markets** for both exports and imports. There are strong **legal requirements** conditioning SF's and SFB's activities, with a **scarce allocation of public budget to the agri-food sector**.

Access to natural assets (land, water, etc.) is **difficult for SF and SFB**. Likewise, their **access to managerial and technical innovations** (research outcomes, knowledge stocks) is poor.

Poverty is spread among the population of the Reference Region, with a demographic **decline of population in rural** areas and an increase in urban population.

In this framework, **consumers are not aware about the nutritional and environmental implications of their food habits** as they are more concerned about having access to food. Solidarity and other social values, also in relation to small farms' problems are a **minor concern for society** in the reference region.

The following table compiles the names this scenario was given by the participants in each regional workshop.



Table 7. Regional names for Scenario 4 (DISRUPTING)

Country	Country code	Region	Scenario name
Cape Verde	CV	R2 Santiago Island	Generalized crisis
Ghana	GH	R7 Gushegu District	“Ayayoo World” (unbearable, difficult world)
Greece	GR	R9 Larisa	Disappearance amidst duality
Italy	IT	R11 Pisa	The Bermuda agri-food triangle: overexploitation, abandonment and neo-self sufficiency
Kenya	KN	R13 Ugunja Sub County	Sustainable Development Era
Latvia	LV	R14 Latgale	Phoenix
Malawi	MW	R17 Balaka District	Sustainable Development Era
Norway	NO	R18 Hedmark	Back to Basics
Poland	PL	R19 Rzeszowski	Hope for better future
Romania	RO	R25 Giurgiu	The Green Pharmacy – with Chicken Flavour <i>or</i> Globalized Communism
Portugal	PT	R23 Oeste	Hyper-bio capitalism
Spain	ES	R26 Castellón	Zombie apocalypse
UK	UK	R29 Perth and Kinross, and Stirling	Crofting gets real

Comparative analysis

This fourth scenario is exactly the opposite of the previous one, so that it shapes what could be considered, in principle, the most disrupting context for SF and SFB. This is precisely the way it was assessed by the participants in the workshops. However, along the discussions some interesting reflections arose. The report from the UK region clearly illustrates what happened in several workshops.

“The parameters of scenario 4 provoked an immediate, negative reaction with participants equating this future with more negative characteristics of the present in the ascendancy. All the participants began in a despondent mood complaining that they had been set a negative exercise with one participant voicing depression that 2050 did not represent any progress from what is currently the case. Living in scenario 4, with neither financial support nor collective action helping matters, made any positive contribution of small farming difficult to envisage but as the discussion progressed more of a nuanced view began to emerge.”

This nuanced view is also reflected in some of the names given to this disrupting scenario in other regions: “Phoenix” (LV), “Back to basics” (NO) or “Hope for better future” (PL). In other cases, the very title opens the door to the survival of some kinds of SF and SFB, like “Disappearance amidst duality” (GR) or “...neo self-sufficiency” (IT).

Contrariwise to the previous scenario, this one was framed in a context of crisis: economic (“The continuation of economic crisis” GR), social (“societal crisis that have happened and replaced prosperous times in Norway”), and political (“lack of real democracy in this society” ES; “the strong militarisation of the State” PT).



Many of the narratives start focusing on the **high concentration of the food sector** that characterised this scenario, where large operators – in particular retailers - dominate and develop vertical integration strategies (PT, RO). This sectoral concentration is dominated by the role of economies of scales (UK, PL) and fierce price competition, which drives out most of SF and SFB from the market, leading to a massive disappearance of these holdings whose workers get unemployed (GR), become salaried labour in large farms (RO) or migrate to urban centres (LT, ES, PT).

Other factors coalesce to aggravate SF/SFB situation. The **strong** (health, fiscal, environmental) **requirements** set up by regulators to food actors become a barrier for smaller businesses to operate in formal markets (PT, NO, GR, UK, PL, KN), as it means – in relative terms - higher costs for them in comparison to big companies. It has, though, some potentially positive implications for SF/SFB, as it can regulate the conflicts between pastoralists and small-farmers (GH) and in some cases it can also enable SF's access to conventional markets (MW). This is similar to the impact of **international trade liberalization**, which weakens SF and SFB due to their difficulties to compete with low price food imports, but also opens new opportunities in few cases, like for cereal producers in MW due to the removal of export bans or for SFB that can retail imported food (though this erodes their relationship with SF, GH).

Nevertheless, as it was mentioned at the beginning of this section, despite this generalised crisis for SF and SFB, several workshops reported how these small entities could keep having a space for survival at the 'fringes' of the dominant food system. This is the case for instance in remote rural areas in NO, where SF and SFB supply food within informal/illegal markets. Furthermore, new forms of small-scale urban and periurban agriculture appear –also informally- in some regions (UK, NO). In other cases, although the demand is massively oriented towards cheap low-quality food, minority niches remain, so that few SF and SFB can supply a small segment of demanding consumers (IT, ES, GR, LT, UK). In any case, there is a generalised dualisation of holdings as middle farms and businesses disappear and only a subset of subsistence self-provisioning farms survives in this scenario (CV, IT, NO, UK, ES). There are also some mentions to a return to farming in more remote areas "*return to the hills*" (UK) where climate change is allowing to produce (NO), showing that these SF have some mechanisms of resilience due to their flexibility and adaptive capacity (UK) and their creativity in *mangesyleri* (puzzling with many things like some farming, some forestry, some hunting & fishing, some tourism activity, etc.. (NO)).

It is also interesting the way some 'absent' conditions are given great relevance. This is the case of **collective action**, that receives attention in the majority of regional reports. Some reports emphasise how this scenario is characterised by the predominance of individualism and self-preservation (ES, PT), aggravated by urbanisation (GH), that "*challenged values and the willingness to cooperate and to collective action that was a feature of the Scandinavian model*" (NO). The lack of cooperation and collective action aggravates the several problems this scenario involves (CV, KN, MW), and it is very much missed by stakeholders as it is perceived as an essential ingredient for the resilience of SF/SFB (LV, ES, UK, PL, RO, NO, CV, KN, MW, GH).

As a consequence of the accumulation of negative factors, the **impacts of climate change** on SF/SFB receive more attention than that of previous scenarios, as small holdings are expected to suffer more deeply (PL) the implications of water shortages (GR, RO, ES, KN) and desertification (CV). Nevertheless,



some Northern regions do consider that the new climate conditions could allow new areas (too cold at present) to become agriculturally productive (UK, NO).

In short, this is a scenario of generalised **food crisis** that goes beyond the difficulties it means for SF and SFB. Diets have changed towards processed cheap low-quality food (GH, PT, UK, NO, GR, RO), giving rise to obesity and food-related illnesses (GH, PT) and food poverty (PT). Moreover, food stability is also hampered by livestock diseases (UK).

2.3.5. Discussion

The contribution of this analysis is twofold. On the one hand, the discussion of the implications of the several scenarios for the situation of both SF and SFB, as well as for their contribution to FNS, allows for a comparative analysis to highlight similarities and differences, and to better understand the role of certain drivers. On the other hand, the downscaling of common scenarios to the specificities of each region was a necessary step to better assess the feasibility of the action plans developed along the backcasting exercise. This second point is part of the analysis included in Section 2.4. In this section (2.3.) we focus on key ideas that arise from a comparison across scenario narratives.

How much collective action is missed...

The relevance of the components of the scenarios stems not only from how they intervene when they are present, but also from to what extent participants missed them when these components are absent. This is particularly evident in the case of collective action and capacity/willingness to cooperate, which would be low in the scenarios BAU and Disrupting, the one more negatives- from the stakeholders' view, for SF and SFB. This reveals the perception of stakeholders about the potential role of collective action as a mechanism of resilience, so it could contribute to weaken the negative impact of some drivers. This is quite evident when comparing the attention paid to collective action in the scenario narratives. Interestingly, it seems to receive more attention when it is absent/weak than when it is a component of the scenario.

SF and SFB beyond food

Although it was not explicitly addressed in the prompting questions of the scenario exercises, more focused on the implications on regional FNS, the stakeholders who participated made frequent mentions to the impact of SF/SFB challenges on the broader rural setting they are located. Indeed, several topics appeared regarding this 'rural' linkage: SF's role in maintaining agricultural employment and preventing outmigration, the impact of SF dynamics in land occupation and the preservation of traditional landscapes and environmental quality, or the synergies between SF, SFB and other economic activities. These ramification of the discussions reveals that the concern about the future of SF and SFB goes beyond their role as food producers, processors or providers, and also relates very much to their role in supporting rural communities and the rural environment.

The FNS challenge

Finally, this comparative analysis illustrates the different role of SF and SFB in regional FNS under alternative future scenarios. Needless to say that there are certain differences between regions, but an overall view to the several scenario narratives allows for the identification of a pattern that addresses two interwoven questions: (i) what is the overall status/situation of FNS in the region and



(ii) what role SF and SFB play – if so - in such situations. Table 8 synthesizes the position of each scenario regarding these two questions.

Table 8. Scenario classification

		How is the situation of FNS in the region?	
		Bad	Good
How SF/SFB do contribute to FNS?	Importantly	Mirror Disrupting	Enabling
	Weakly		BAU

Stakeholders foresaw a relevant role of SF and SFB on regional FNS in three out of four scenarios used in this exercise. However, only in one of the (supposedly the most enabling for them) scenarios did this contribution led to a good level of regional FNS. In the two other scenarios, the role of SF/SFB remained limited to a minority of consumers (those in remote rural areas outside the coverage of big retailers or a minority of vulnerable groups unable to afford food from conventional value chains). Interestingly, the discussions around BAU scenario did not give rise to a generalised concern on its impact for regional FNS, but to the perception that the primary ongoing trends of the food system would keep weakening SF and SFB, and the role they play in rural areas.

2.4. Crossing objectives’ clusters with scenarios’ narratives

This section presents the results obtained when the researchers from the SALSA teams confronted the action plans designed by the stakeholders with each of the four future scenarios described above. The action plans are grouped around the six broad clusters of objectives for SF and SFB (Section 2.2). Although inevitably many proposed actions respond to different objectives, an effort has been made to assign similar types of actions to each objective in a consistent manner for all regions. It is important to note that we will not make any reference in this section to the names of the four scenarios. On the contrary, we will highlight which drivers (from which the scenarios were built) are key in facilitating or blocking the success of the different actions proposed.

The results have been broken down for each objective into two different sections, corresponding to the European and African regions.

2.4.1. Objective 1. SF and SFB have knowledge and access to inputs, technology and innovations

European regions

Generally speaking, the actions aimed at achieving this objective emerged in the different regions of Europe were more frequently focused on the **access to knowledge** than on the access to technology and inputs. Several countries made emphasis in measures such as training courses and advisory services aimed at helping SF and SFB acquire the know-how needed to produce local/traditional/healthy food (ES, PO, NO), to improve marketing and build networking (GR, NO) and to develop businesses (UK). These types of measures were widely accepted as likely to succeed even



in a context of budget constraints, arguably because they are less costly than other kind of interventions (subsidies, infrastructure investments).

The promotion **FAS and AKIS tailored to the needs of SF** (RO) would be more difficult to implement in liberal economies. It is noteworthy that NO found that, to attain the goal of SF being pioneers in the production of healthy food, public support was also necessary to finance their **production restructuring**, what would be unlikely in situations of low budget expenditure. In the same line, the implementation of **precision agriculture** by SF proposed by GR was also conditioned to the availability of public funds.

Access to knowledge was also proposed through **farmer-to-farmer learning and field visits** (PT, GR). In this case, a weak engagement in collective action would hinder their implementation. Interestingly, RO proposed to take advantage of the experience, knowledge and competences of returned immigrants.

Within this broad objective of access to technology and digital innovations was also identified. This is the case of several European countries that pointed to the need to create **joint selling platforms for local agrifood production** (ES, PO, IT) - or platforms for information sharing and provision of special services (GR). These kinds of initiatives would be hindered by the lack of access to technology and innovations, even if there is willingness to cooperate.

Similarly, access to different assets also condition this objective. For instance, the improvement in **regional and rural infrastructure** was also contemplated by several countries. UK opted for the creation of regional food hubs. In RO they proposed infrastructures and services in rural areas to encourage their repopulation by urban dwellers, young farmers or the Romanian diaspora who might want to invest back in their homelands. In both cases, these actions would only be possible with high public expenditure. The support for digital channels alongside the commitment to high-speed broadband provision was also proposed by UK; in this case, this would be possible in a liberal/low budget scenario provided that it is market-led.

As mentioned above, very few European regions paid attention to **access to inputs** in the realm of this objective. PT proposed that farmers' organizations declared seed varieties autonomous and free, and they acknowledged that this would be unlikely in a liberalized market. Only one Eastern country (LT) and UK included actions aimed at increasing the **access to land**. The UK, in a context of the largest farms in Western Europe, proposed a land reform to effectively increase the access to land at small scale. This action would only be possible in liberal scenarios provided that big players (estates) do not overturn such reforms. LT proposed that the State procures strips of land which have become burdens for large intensified farms, which is relatively likely in a liberal scenario. The State could lease small plots of agricultural land to SF in order to expand a little and ensure new entrants the access of agricultural land.

Finally, the **access to credit** for SF – as a requirement for investment in inputs or technology – were only mentioned by LT and PO in the form of credit lines, credit unions, preferential loans and state guarantees. In both countries there are doubts, to a greater or lesser extent, about the viability of this action in a situation of liberal economies and/or low public budget.



African regions

Whereas the emphasis in Europe was put into access to knowledge to produce local, traditional and healthy food, African countries emphasize the need to improve the **research in modern farming technologies** (MW, GH). Collective action by researchers, policy makers and farmers on the collaborative improvement of agriculture is requested (MW), as well as **dissemination and access to solutions adapted to SF and SFB challenges** (MW, CV).

African countries heavily emphasized **access to inputs**. A clear policy of provision of quality farm inputs is demanded in KN. This country proposes increasing uptake of leverage subsidized inputs by SF living far away from the main roads - for what the willingness to increase public expenditure is necessary- and the access to quality inputs by SF at the nearest agro distributors. In the particular case of seeds, it is suggested that they are tested before reaching the market, and that SF are subcontracted to produce quality seeds (KN, MW). The **enforcement of seed laws** to protect SF from dubious seed traders is also required (MW, KN).

A distinct trait of GH is that they gave an important role not only to the Government, but also to NGOs in their proposals (always conditioned by the availability of financial resources from donors). These proposals are similar to those displayed by the other African countries - provision of mechanization services, subsidization of tractors and modern equipment, promotion of animal traction, provision of quality seeds and, in general, of adequate inputs at good time (early in the season) to **get good yield and produce large quantities**.

The need for improving the **access to extension services, training and technical assistance** (from both public and private sector) was also identified as an important action by stakeholders of the four African countries. Extension agents should be trained in modern technologies (GH, CV). Knowledge on the importance of **producing early maturing crop varieties** should be shared to SF (KN, MW), and **demonstration plots and field days** on early crops should be promoted (MW). Extension agents should help farmers to **farm large areas of land** (GH). **Business plans** should be developed so that small farmers can assess the costs and the selling price accordingly (MW, CV) – farmers' organizations are seen as crucial actors for this measure. CV state that efforts should be put to **make SF production regular year long**, as long as water and technologies are available.

The access to **rural infrastructures and access to market information** also deserved specific attention by African countries. KN and MW propose to establish **rural growth centers** especially in remote, ill-communicated areas. MW also requests the improvement of rural roads. **Storage facilities** could be provided by NGOs (GH). **Market information on price and quality** should be shared to SF before harvest. In the same line, radio and TV programs where price and market information is advertised are proposed (MW).

The need to improve the **access to credit for SF and SFB** was also highlighted by the four African countries – e.g. by means of low interest credits lending institutions, table banking² and small micro finance institutions. Training to access to credit facilities and public funds is also necessary for SFB (KN).

² Table-banking is a group based funding strategy in which members (usually women) save and borrow immediately during their meeting times. It is based on group guarantee and house-hold collateral. <https://joywo.org/table-banking/>. last accessed december 2019.



GH remark the important role of both the Government and NGOs in the access to credit facilities, and also of stronger cooperatives as vehicles to access to credit facilities.

GH have put special attention to the improvement of **food safety**, with actions such as recruitment and training of food inspectors and periodic medical screening of food vendors as means of checking disease transfer.

In general, the increase in the **public expenditure** and a **strong public and private support to cooperatives** are seen as requirements for these initiatives to succeed.

2.4.2. Objective 2. SF and SFB have access to value-addition processes

European regions

To achieve this objective, several countries suggested training for SF or SFB to promote **new business models** (ES) – e.g. on diversification and connectivity of local products and local consumers (RO) - and to launch support programmes for enthusiasts (NO). In very concentrated markets there is a risk that these innovative business models are led by big farms/agrifood businesses and oriented, for instance, to vertical integration. Therefore, public expenditure aimed at supporting small farms and their access to innovations is needed to engage them in new projects.

Some countries propose **co-participation among farmers, consumers and other stakeholders** for the creation of new production models targeting food demand and consumers' preferences (ES, LT, RO). To make these initiatives work, willingness to collective action, additional experience on working together and an intense facilitation and boundary work between organisations and stakeholders would be needed.

The creation of **business incubators** (ES) would require an environment of access to innovation; the support to **start-ups** in rural areas (RO) would also need technical advisory in order to compete with applicants from urban areas. In the case of cooperatives, they would also need public support targeted to **professionalize their staff** in order to make market-oriented decisions (ES). State and research institutions are compelled to carry out **market studies** to identify consumers' preferences for SFB from a macro or national perspective (PT), a low cost measure that could be useful in the less favourable situations of high poverty.

It is noteworthy that, in general, little attention is specifically paid to **processing** processes. In RO stakeholders underline the need for processing units available in the region; however, they also state that in liberal and concentrated markets the revenue for SF is unlikely to be fair. In PT a survey about the availability of raw materials in the region is proposed to foresee how **by-products can be used by SFB to create value-added products** – something that could be led either by the public or the private sector.

Investments in image and promotion of niche, differentiated products with high value added were proposed (PT, RO). These market-oriented activities are possible in liberal economies; however, in RO doubts are posed about the role that SFs would have in these strategies in a liberalised and high concentrated sector. Importantly, a high level of poverty could prevent the effectiveness of this strategy.



In countries from Western Europe many of the proposals revolved around **quality/local/health labels** as a key value-adding strategy for SF and SFB products. Actions such as the creation of public or private mechanisms of certification of local products (GR, UK, PT, IT, RO, NO), the public support to DOs (PT), and the effective protection of certified local products from counterfeiting their fame (GR) arose in the discussions. In general, a regulatory environment around provenance is pointed out as a requirement for these initiatives to succeed. Participative certification schemes would also require willingness for collective action and are less likely to happen in concentrated and liberal markets. As for the creation of **specific brands for SF products** (RO), leadership and strong lobbying activity would be necessary to achieve the representation of SF at the table of discussion with institutions. Again, it is important to note that in contexts of high poverty these brands would not attract the mass consumers, except perhaps in the case of healthy food labels (NO).

African regions

Within this objective, **African regions put much more emphasis on processing than European ones**. In order to improve the value added of goods through processing, access to technologies and facilities is needed (KN, MW, CV). KN and MW suggest practicing **post-harvest handling**, in order to satisfy reliable markets, reduce wastage and improve sales that increase the income at household level. MW proposes enhancing **food processing to counter the effects of perishability** with metallic silos and concrete silos - this measure not only increases the value added, but also helps to adapt to climate change risks.

Strong SBF should contribute to decision making about emerging markets to distribute nutritious value added food products (KN).

2.4.3. Objective 3. SF and SFB have significant share of the regional food supply and are well connected to diverse markets

European regions

In general, the improvement of the **access to SF and SFB products by consumers** is seen as crucial to achieve the objective of increasing the share that small entities represent in the regional food supply. Stakeholders highlight the need for increasing the accessibility for purchasing products from SFB (UK) and the availability of SF products through diverse distribution channels (NO).

Generally speaking, **very little attention was paid to “massive” marketing channels which would lead to a quantitative increase in the amount sales from SF and SFB** – i.e. proposals specifically aimed to increase the sales of SF products to supermarkets or to the foreign market. Proposals are **more focused on the commercialization of high quality products and on minority marketing channels** than on increasing the mass consumption from SF and SFB. For instance, the creation of small specialty/local/quality food shops is proposed by several countries (GR, UK, PO) and also an increase in the visibility of local products in the store windows (ES). These actions are compatible with liberal economies, but require some consumers’ awareness of the importance of local/quality food to succeed. New **online distribution channels** are also suggested (RO, PO), as well as **food vending machines** in local communities (UK) - in this case, they would adopt a corporate model in a context of concentrated liberal markets.



The support to farmers' markets was also proposed (NO, ES, UK). Remarkably, **several countries state that short chains may acquire importance in scenarios of high poverty**. In PT, stakeholders state that it would be achievable that SF and consumers' associations join forces and create pro-consumer cooperatives; in PO it is suggested that alternative sales networks for local products could operate, and in ES they consider that poor consumers would attend proximity markets. However, when a high concentration of the value chain prevails, agribusiness could lobby against short chains and local markets and even against the information provided by city councils on SFB.

Hotels and restaurants have been identified as an interesting market for SF produce (ES). However, to take advantage of this channel SF would need to gain access to the innovations required to overcome the logistical challenge of supplying these operators. The creation of hubs to foster contacts between SF and hotels and restaurants is proposed (ES). **Tourists** are taken in consideration as potential consumers; in this sense, the collaboration of SF with tourist agencies to promote SF and SFB products is proposed (NO), as well as marketing strategies specifically targeted to tourists (UK, ES, PT). In general, these strategies could work even in situations of high poverty, as tourists and niche consumers will also be present in such context.

LT states that the increase of the interest of **processors** in SF products would ensure an outlet channel that would be able to absorb harvests. This would be unlikely to happen in concentrated value chains, but in a context of strong public regulations and willingness of the public sector, SF products could be prioritized.

African regions

Within this objective, the **access to reliable markets by SF** is highlighted in African countries. Market policies to curb illegal vending are pointed out as necessary by MW, and, in general, an adequate legislation regarding organization of production and monitoring of the food chain is needed (CV). Government should support the availability of markets for SF products; market linkages for SF could also be provided by NGOs (GH).

In MW, they suggest that SF interact more with companies or buyers through **contract farming**, so that SF have a market when they produce.

Whereas the **European regions made no considerations about the affordability of food produced by SF, some proposals of African countries revolved around this issue**. The supply of food needed by consumers at affordable prices is considered by KN - although profits to SF and SFB should be fair too. SFB should aim to satisfy the local food market through the provision of **quality products that are easy to use** (MW).

2.4.4. Objective 4. Consumers are aware and value regional SF products

European regions

As stated above, the production of SF and SFB is widely identified with local, traditional, responsible, healthy and high quality production; therefore, all countries have taken into consideration the importance of increasing the consumers' food culture about these issues to stimulate the sales of small production units.



Awareness campaigns are proposed by all European countries. They may be focused on spreading the consumption by the general public of **local food** (GR, ES, IT, PO, RO, UK), on promoting **traditional products and the old cuisine** (ES, PT, GR) and also traditional crops and varieties (PT). Campaigns or long-life education in **purchasing responsibility** (i.e. understanding seasonality, strengthening the link between environmental values and food – packaging, lower food miles in proximity food) are also considered (PT, UK, LT), as well as education on **healthy and nutritious eating** (PT, IT, PO, UK, LT). In most of these countries several of these messages would be combined in the same campaign. Measures specifically aimed at **raising awareness about the role of SF** are less frequent, though still present (ES, PT, RO). For instance, in PT small farmers are recommended to promote their products on local radio and TV networks – an action that is compatible either with a free or a protected market.

Some educational proposals are targeted to specific audiences. **Education at school** (including farm visits) deserved attention in several countries (ES, UK, PT, PO), and the promotion of old cuisine and “retro-innovations” of traditional recipes by **hotels and restaurants** is also suggested (ES, PT, RO).

Stakeholders presume greater or lesser potential for success of these actions depending on the consumers’ mindset and level of income prevailing in different scenarios. Impoverished population is widely expected to be mainly concerned about shortages and care little for marketing narratives about the story behind the food products. However, the social values and concerns could counterbalance, to some point, low income constrains. If people already have certain awareness about the nutritional and environmental implications of their food habits, they would be more receptive to the messages about the alleged benefits of SF production. Likewise, if strong social values in terms of solidarity and collective action exist, they could facilitate the promotion of local food and food supply from SF. Even in the most unfavourable scenario of low income and weak collective action, stakeholders in PT still pose that an awareness campaign could be organized by a minority group of SF, as the need to overcome poverty could act as a revulsive.

On the other hand, educational programmes are dependent on the availability of public funds and the political will to encourage local production and support SF. Campaigns on local consumption are seen as more viable and likely to succeed in protected than in liberalised markets. Some countries warn that in liberal and very concentrated markets there is a risk that agribusiness monopolizes education on agriculture, environment and food.

African regions

This broad objective was much more taken into consideration by European regions than by African ones. KN points out the need that SF should attract more consumers who now show preference for large food businesses, for what policy inclusion and capacity building is needed. However, no suggestions related to the improvement of the food culture of the population – regarding healthy and nutritious food, for instance – were collected from the action plans in African countries.



2.4.5. Objective 5. SF and SFB are empowered (politically, economically and socially) and receive financial and technical support from the public sector

European regions

This is the objective that has gathered a greater number of proposals. We can classify these actions into two large groups: those that refer to the empowerment of SFs and SFBs in the public policies, and those that seek to improve the position of SF in the value chain by means of collective action.

Starting with the first group, proposals in European regions are referred to different political levels - European, national and local. Actions proposed European and national level refer to **changes in the eligibility criteria access different subsidies**. Several countries suggest a general change in the financial support rules to give additional help to SF (PO, RO) and SFB (UK). The change in the minimum farm size as eligibility criterion is specifically suggested (GR, NO, PO). An active support for those farmers who do not want to expand by means of suitable indicators that recognize wider values is proposed by UK. In PT, the Ministry of Agriculture is compelled to review the eligibility criteria for funding based on the objectives defined by SF, and they consider that this measure is likely to happen in as a poverty reduction strategy and also to combat rural desertification. Some other proposals go further and ask for **minimum food prices** at regional level (PT) or for a change of the support schemes from growth to economic stability (NO).

An important risk that several countries warn about the implementation of these measures at supra-national level is that EU is no longer a relevant political instance in the future in scenarios of closed markets (ES, LT, RO).

At a national level, **changes in the tax policies to incentive SF** are proposed (PT, LT, GR), although they would be subjected to the political will to help small entities and the availability of public funds. Administration and controlling bodies should change their attitude from penalizing to enabling/accompanying farmers (LT), what would require to change and train the organizational culture of controlling institutions. More specifically, legal requirements should be tailored to SF in terms of traceability and hygiene (ES). LT also propose to improve the **advice to farmers** about the regulations.

At national or local level, the prioritization of SF and SFB to supply **public procurement** is proposed by many European countries (ES, PT, RO, PO, GR, LT), what may be hindered by an insufficient access to innovations by SF and SFB in order to overcome logistic obstacles. The viability of this will largely depend on the funding priorities and the SF representation. Municipalities should also join farmers' cooperatives and helps to develop infrastructure, subsidize coops' managers, improve logistics and reduce trips for SF, what enable trade and larger contracts (LT).

A generalized requirement for the feasibility of the public support to SF, as several countries have stated, is that **SF lobby to defend their interests**. A continuous persuasion for advocacy of SF and SFB contributions to FNS is necessary (LT); as well as developing a critical mass to bring issues related to the importance of local and quality food consumption to local policy makers and regional administration bodies (IT). Lobbying for short food circuits is required to make local municipalities coordinate and support local markets in liberal economies, and also to change RDP in favour of SF (PT). RO remarks that it is necessary to create a form of SF representation and increase its influence in



consultation mechanisms, and that SFB also should actively be implicated in policy making. **Consumers** are seen by NO as possible influencers of politicians if they change their choices in favour of sustainable food. In any case, for these lobbying actions to succeed policy makers should be willing to acknowledge the importance of SF for food security and public goods provision.

There are several risks involved this lobbying activities. On the one hand, not all SF may be represented in their representation bodies (LT), and on the other hand, big farmers' associations could also lobby against SF and SFB, particularly in liberal and concentrated markets (e.g. pushing for "only we feed the world" (RO)).

The second large group of actions has to do with private-led initiatives to **improve the position of SF and SFB in the value chain** - although they have received much less attention than the empowerment in the public sphere. Value chain arrangements (contracts) at regional and national level are proposed (IT), second-level cooperatives should be created and boosted (ES, although there is a risk that they do not include all SF). Networking among different SFB to create SFB clusters is also proposed (GR). PO suggests promoting cooperatives between SF and SFB, although they also acknowledge that big farms and processors are more likely to cooperate in concentrated markets. All in all, in scenarios of weak willingness for collective action the agri-food associations of a different kind are unlikely to happen or succeed. Interestingly, RO states that the reticence for associating handed over by communist regime is still present in some areas, but there is a clear trend of merging to pick up associations. On the opposite side, the low concentration (atomisation) of the sector is also seen as a problem to create and boost interprofessional organizations (ES, GR).

African regions

Lobbying activities by SF are also suggested by African countries to eradicate business brokers, fight for their inclusion in setting prices and access to new markets. The increase in the influence of SF on government decisions in general is also suggested (KN). SF need to acquire strong **social capital** to achieve these goals, for with a clear bet on capacity building and the promotion of collective action, trust and solidarity are necessary (CV). **All African countries underline the need for increasing the membership of SF to specialized SF and SFB cooperatives.** The need for increasing the influence of SF cooperatives on policy making at all levels is stressed (KN). Public and private support to cooperatives is a common request in African countries.

As for SFB, they should also **increase their purchasing power** to acquire produce in large quantities (KN). Strong **linkages between SF and SFB by means of long term contracts** are also suggested (KN). In broader terms, government incentives for SFB are demanded (CV).

In order to improve the access of SF and SFB to **public procurement**, public regulations should be flexible and applied to social actions, the institutional market should be organized and standardized (CV), and training in marketing is also necessary (MW).



2.4.6. Objective 6. SF and SFB contribute to environmental protection and climate change adaptation through sustainable production, diversification and preservation of the genetic heritage

European regions

Probably the most important actions proposed by the different countries in the realm of this objective are that **SF use native livestock breeds and traditional varieties/crops and the preservation of the genetic heritage** (ES, PO, PT, GR). PT makes emphasis in the use of varieties adapted to the region and climate, based on the SF learned knowledge, and they consider that these actions are possible if SF work in collaboration to promote local seeds. The creation of a Propagation Material Deposit with traditional varieties is proposed by GR. Agrarian schools, farmers' associations and universities should also train SF about the advantages to produce native plants – also in urban gardens - provided that there is enough interest in promoting sustainable methods (PT). In case the public sector is weak or unaware of this, private schemes could support native livestock and seeds (ES, PT).

Consumers' awareness is seen as a requirement for varietal diversity in SF, but also for increasing the variety of fruits and vegetables offered by SF. Moreover, applying innovation is also necessary to meet SF's diversification needs (UK).

Attention was also paid to the **increase in organic production** by SF (GR, UK). In this line, city councils should facilitate the inclusion in local markets of young farmers producing ecologically (PT). **If the population is sufficiently aware about environment, they could lobby to support organic production even if they are not as much aware about local products or SF problems.** Environmental activists could also make possible the creation of an association of SF in line with agroecological principles (PT).

Stakeholders in PT also advocate for **reduced use of pesticides**; moreover, they state that the Environment Agencies should grant SF support to install riparian vegetation to protect their plots, boost **biodiversity** and enhance pest bio-control. They also advocate the reduction of production costs of SF by using **organic residues** from the farm and relying more on **renewable energies**. In broader terms, RO suggest that **SF should be a part of a system of synergies contributing to circular economies**.

Attention was also paid to the **payments to SFs for their environmental services**. A new subsidy regime should be created to reward environment replacing area-based payments (UK, RO). In liberal markets, or when the public budget is constraint, they are expected to be replaced by private schemes as long as that there is environmental awareness (ES).

African regions

In the realm of this objective, the **crop diversification is linked to the adoption of modern farming technologies**. The production of both **food crops and cash crops** is encouraged in order to reduce depleting food output through sales at the expense of consumption (MW).

In general, African regions **pay more attention to the adaptation to (changing) climatic conditions**. They propose improved and quality seeds for indigenous crops to help SF take advantage of the weather conditions (KN); in the same line, planting of drought tolerant varieties and the adoption of



early maturing seeds – mentioned above - would enable SF to switch from local varieties and produce more despite climate change risks (MW).

Strong **awareness campaigns to preserve and value the environment** are necessary, as well as the promotion of organic production and, in general, sustainable production (CV). However, access to natural resources and managerial capacity are indispensable to put this into practice.

Box 1 and 2 summarise, for both Europe and Africa, some of the key findings of this section. These findings can be read as needs for SF and SFB to adapt to changing environmental, social and market conditions.

Box 1. Key findings from European Action Plans assessments under alternative scenarios

- Access to knowledge is perceived as more important for SF and SFB than access to technology and inputs. Knowledge is a source of resilience to face uncertainty and changing conditions.
- There is an emphasis on knowledge on retro-innovations allowing to produce and valorise local and traditional food and environmental conditions. The small farmers themselves are a source of knowledge of other SF.
- The production of SF and SFB is widely identified with local, traditional, sustainable, healthy and high quality production. This would require quality/local/health labels (either lead by the private or the public sector) purposely designed for SF and SFB products are widely proposed.
- As a result of the former point, little attention is paid to “mass” marketing channels. Instead, proposals are focused on the commercialization of high quality products in a diversity of SFSC.
- There is a generalized demand to ease the access of consumers to SF and SFB products by means of joint selling digital platforms of local food.
- Public procurement is claimed to be an important opportunity for SF and SFB.
- Actions are proposed to rise consumers’ awareness about locally SF/SFB sourced food, products of the old cuisine, purchasing responsibility, healthy and nutritious eating and the role of SF in the food system.
- Stakeholders emphasize the need for reinforcing the position of SF in both the food value chain and the political sphere.
- Several mentions are made to the need to change the eligibility criteria to access different forms of public support (subsidies, extension services).

Box 2. Key findings from African Action Plans assessments under alternative scenarios

- There is a need to progress towards more modern farming technologies adapted to SF and SFB challenges. This is linked to access to inputs and, particularly, to access to extension services, training and technical assistance.
- African regions put much more emphasis on processing than European ones, particularly to reduce post-harvest losses of perishable products.
- Access to markets would require the enforcement of adequate legislation regarding food production and monitoring of the food chain.
- All African partners have underlined the necessity for increasing the membership of SF to specialized cooperatives.



3. Key messages to key actors

Finally, in line with the action-oriented approach of this work package, this Deliverable concludes with the distillation from the comparative analysis of key messages to key actors below. This corresponds also to the way stakeholders identified those responsible for the necessary actions to be carried out (“who should be doing what”).

There is some overlapping between these messages and the analysis about the objectives, actions and their feasibility under different scenarios contained in the previous section (2.4). Nevertheless, we consider it is important to reorganise these recommendations around specific recipients to facilitate their identification, making explicit reference to the regions from where these actions were proposed, so that they could be inspiring for others, in a sort of cross-fertilisation of ideas.

3.1. Public administrations

Helping SF to gain **knowledge and skills** is one key aspect where participants widely pointed specifically to local and regional administrations, as well as central administrations, to bear responsibility, depending on the level of de-centralisation in each country. **Public administrations** would be responsible for promotion of handling and using local products, especially in traditional ways in vocational schools (PL) and of improving **agricultural education** also in vocational schools (RO), including organic farming, sustainable land management and the relevance of native species (PT). Public administrations could establish quality **advisory services** tailored to SF’s and SFB’s needs, covering legal and administrative advice, assistance for new business approaches and agricultural extension (PL, RO, GH, MW, KN) to increase productivity while being ecologically sustainable (CV). This would also involve providing training to SF and SFB on technologies (agriculture, food processing and transformation), high quality food production, production planning and business management, and to promote exchange of experiences (farmer-to-farmer learning) (CV, GH, RO, PT, PL). To this end several different ways were highlighted such as to tap into the experience of retired agronomists (GR), to provide informative / advice online platforms (LV) or to promote demonstration plots (MW). Besides, central administration has been signalled responsible to apply innovation to meet SF’s diversification needs (GR).

3.1.1. Local and regional administrations

The comparative analysis of actions across regions assigned **local and regional administrations** a significant role in supporting the integration of local SFs and SFBs into regional and local **markets** by using different strategies, including the promotion in different ways of proximity agricultural markets (PL, ES, GH, UK, PT) and increase the number of market towns (UK), with particular attention to young and organic farmers (PT, CV); the support to SFB - like regional abattoirs - through public-private partnerships to reverse current trend for centralisation (UK); to make processing units available for SF (RO); the development of marketing plans for local SF’s products (ES), fostering contacts between SFs/SFBs and restaurants, hotels, etc., and the establishment of regional food hubs (UK, ES). Enhance current market channels for SF products and develop different distribution opportunities to ensure SF’s produced products are available are also key aspects where local / regional administration is expected to have a role to play (LV, NO, RO). A particularly recurrent claim (LV, PT, RO, ES) targeting



local and regional administration is to facilitate SF participation in public food procurement. Proposals in this direction include the design of policies giving preference to SF's produced products, such as in school canteens (GR, PL), or the inclusion of organic and proximity requirements for food in public procurements.

These public administrations should also develop **infrastructure and services** in rural areas in order to halt depopulation and/or to encourage re-population of rural areas (RO, UK). This must be undertaken in collaboration with National administrations, as mentioned below.

A good share of the regions consider that local / regional governments, in coordination with national governments, should facilitate the **inclusion of SF in policy and decision making** and thus see producers' demands attended and their interests better represented (KN, LV, RO, ES, UK). This highlights the need to improve current communication between SF and local / regional governments but also at national scale and ultimately aiming at influencing EU regulation bodies. Indeed, this claim is linked to achieving **better tailored regulations** to SF and SFB and to supporting their particularities, which is another demand (LV, ES).

In addition, local and regional administration would be responsible for raising **consumers' awareness** on agri-food related issues (ES) and on the importance of consuming locally produced food from SF and SFB (RO, UK, IT), including values of SF's local products, traditional varieties and organic products (PT, GR, CV, NO), and to take this education on values of local products to schools (ES, PT, GR), involving them in raising awareness among the community. Also this could be extended to the development of a marketing strategy to promote SFB to tourists and visitors. This level of administration should also develop mechanisms to certify local and traditional products to increase **consumers' trust** (PT, GR) and similarly should promote a **distinctive brand / label** for consumers to identify goods produced by SF (NO, RO, UK). Closely related to this is the role of public administrations in the promotion of a culture of **healthy food**, which can serve the interests of SF producing such food by forging stronger connections between nutrition and food production e.g., ensuring that policy makers have good understanding of health, social and environmental aspects of food (LV) and launching educational campaigns on eating habits and consumers' purchasing responsibility (GR, PL, PT) - e.g., TV campaigns or educating on healthy eating in schools -.

Similarly, local and regional administrations would have a role in promoting and supporting **cooperation** between SF (LV, RO) - and to act as a catalyst in the creation and empowerment of interprofessional multi-actor entities in the agri-food sector (ES), including SF and SFB (PL) as well as consumers (NO), administrations, farming NGOs or researchers (LV, RO, ES). Improve coordination between different administrative departments (ES) is another way of cooperation, in this occasion targeting the administration itself.

3.1.2. National administrations

According to the actions proposed, **national administrations** should introduce **specific additional support instruments** for SF (CV, NO, PL, GR, PT) and SFB (LT, PT, UK), and also some changes in their procedures towards the **de-bureaucratisation** of the support given to SF (PT, PL) and the simplification and adaptation of requirements in administrative procedures for SF, such as traceability or hygiene (ES, PL, PT). Particularly in African countries, there is a demand for actions related to providing



agricultural inputs and facilitating access to credit to SF (GH, KN, CV), in some cases done in coordination with NGOs. In some countries specific actions related to SFB are requested such as recruiting and training sanitary inspectors (GH), checking the hygienic conditions of small food vendors (GH, PL), a register of SFB (GH), or supporting the acquisition of modern equipment by SFB (GH, ES). In the UK it is also demanded a specific tool to strengthen innovation in SFB.

Other types of support that are specifically requested to national administration in relation with SFB are a more favourable taxation to SFB (LT, ES, PL, PT) or food (RO), or an initial support to consolidate SF and SFBs into the value chain (PT). Agricultural policies should acknowledge the value of SF and SFB to sustaining the rural areas (UK), and modified in their favour (LT). Other regulatory change to national government is the increment of the minimum wage (LT).

Moreover, the **role and importance of food produced locally by SF** should be emphasized in national legislation (NO, PL), and health services should raise awareness about the nutritional values of local and seasonal food (UK), healthy eating education should be introduced in schools (PL) and the consumers' purchasing responsibility aimed in education campaigns (PT). Some further measures proposed for national Administrations to support SF's contribution to regional food production and FNS included to back the establishment and strengthening of **farmer groups and cooperatives** (KN) or SFB associations (PT), to impose **trade barriers** in order to boost local food profitability (UK), or to implement a **land reform** (UK). Public purchases to SFB for the food to military units, hospitals and schools are another proposal (GR, PL). Monitoring the food chain (CV) and carry out a market study of SFB's products (PT) are other duties of the administration.

In the regulatory framework, some actions are required: the protection of native breeds (PL, ES) and local food products (GR) and an environmental and nutritional labelling (LT).

In coordination with regional governments, national governments should also **lobby** for the SF's and SFB's interests to be taken into account in the new CAP (RO), and to integrate and implement concepts such as the Smart Village throughout their **national strategic programmes** (RO). In this line, governments should establish mechanisms for the participation of SF's representatives in policy-making consultations (RO), and could also support the creation lead by farmers of a body to regulate and promote SF's interests (UK).

National governments should **facilitate life in rural areas** ensuring that **basic infrastructures and services** are in place. Frequently this will be done along with the local / regional administration which, as mentioned above, also has responsibilities on this question. Infrastructures include developing good road connections (MW), high speed broadband access (UK) and establishing rural growth centres (MW, KN) which, together with maintaining public services -schools, stores or health services-, would help guarantee the survival of rural settlements (NO).

3.1.3. EU administration

As for the **EU administration**, the developed action plans point out that the new CAP should contain a clearly articulated menu of **specific measures for SF** (RO) through the Rural Development Program (RDP) (GR, PT), including the enhancement of LEADER-type programmes (RO), or more flexible approaches in RDPs towards SFB (NO). In LT, participants claimed that agricultural policies should be



reformed to pay greater attention to SF and their role in food security and rural livelihoods. Foresight exercises also identified the need to clearly define and value environmental services provided by SF (ES), and to establish a new subsidy regime which provides **payments for environmental services** (ES) and rewards quality (UK). Similarly, EU policies were asked to prioritize healthy diets on their agenda (RO), and support the delivery of local food products to school canteens (PL). Moreover, there was a request for the **simplification of EU's administrative procedures for SF** and the changes in criteria for granting direct payments (PL) and there was also a desire to simplify the investment approval processes (GR). The effective protection of local food was also claimed as an EU task (GR). A curious proposal came from NO, welcoming a delegation from Brussel to their region to learn about local food production.

3.2. Civil society

In relation to **civil society**, some stakeholders pointed out the need for local development **associations (and media)** to create multi-actor fora for discussion of SF and agri-food issues, and to carry out awareness-raising events to promote SF's local and traditional food products and education to consumers (PT, RO, ES) and politicians (ES). These include to educate on social and environmental aspects (LV), on healthy eating (LV, GR) and on new productive models (e.g., agroecological) (ES). Communities should be aware of less packaging, less plastic and lower food miles involved in SFB food production (UK).

NGOs have been identified as co-responsible to make visible (ES) and to train and give technical advice (RO) for emerging new business models, boost new market channels for SF products (LV) and give advice and training on farmers' cooperation (LV) and on willingness to associate (RO). In some African countries like GH, this category refers mainly to **NGOs** (not necessarily from their local civil society), which are regarded as responsible, in coordination with public authorities, for providing SFs with inputs and storage facilities, and modern equipment for SFB, and for facilitating SF's access to credit and market linkages.

3.3. Consumer organisations

The role of **consumers** to enhance the SF's and SFB's contribution to regional food production and FNS was identified in consumers' support and demand for varietal diversity in crops and livestock (UK), SFB's brands (RO) and for organic products (CV, UK). Farmers markets are attended more regularly, and more food and daily meals purchased from SFB (UK).

Aware consumers and consumers associations on agri-food related issues are also expected to help SF with greater involvement, for example, joining forces to SF associations and creating consumer cooperatives to increase their profitability (PT) or by lobbying for SF's interests, e.g. collecting proposals on new regulations (LV, ES).

3.4. Small farmers and their associations

In order to maintain and increase their role in regional food production and FNS, **small farmers** must acknowledge the importance of planning, and to plan their production (CV, PT, MW), along with adopting modern farming techniques, diversify their crops and implement sustainable farming practices (GR, MW, PT). They should also improve food storage (MW) and increase added value at farm



level (GR) while, at the same time, adopt certification schemes and traceability procedures to increase consumers' trust and demand for their products (GR, PT). In order to make themselves more visible and valorised, SF should also invest in image and product differentiation (PT, NO).

In terms of SF's collective action, SF's organisations have an important role in networking SF and promoting cooperation and entrepreneurship among them (NO, PL, GR), while representing SF's interests in policy-making consultations (RO, LV, ES). For the latter, a proposed action was for SF to create a body to regulate and promote SF's interests with the support of public administrations (UK).

In addition to these roles, some proposed actions targeted the improvement of management of SF's collective action entities, and in particular cooperatives', introducing professional teams and market orientation into their strategies, paying their members in a quality-based scheme, and increasing their membership (KN, ES). In line with the market orientation, it was also proposed to create strong second layer cooperatives - to participate actively in food markets and to set joint selling platforms (ES), and for farmers associations to encourage SF integration into food supply chain with high value-added niche products (RO) and more environmentally-friendly productions (GR). To promote local and high-quality food products, farmers associations with commercializing activity should integrate additional criteria or quality indicators to labels of local food products (IT). Moreover, SF's organizations must provide technical assistance, advisory services and training specific for SF, including exchanges with other farmers to learn good practices and enable access of SF to technologies (PL, RO, PT, CV, GR). Cooperatives were also expected to facilitate easier access to farm inputs and credits (GH).

3.5. Small food businesses and associations

The main request to the companies belonging to this group in order to strengthen their contribution to FNS is to innovate in different ways. Hence, SFB should focus on innovative niche products (LT), also innovate on their commercialization through participation in food fairs (LT). Besides, they should bet on sustainable production (CV) and be able to do demonstrations on the product use (MW). SFB should also adopt procedures and systems to ensure food safety and quality of products (GR, LT).

On the SFB's collective action, there are different "layers" in the actions identified. The first type of actions emphasise the cooperation among SFBs, sometimes creating specific instruments. That is the case of LT where, in addition to establishing closer mutual links, sharing information and cooperating for common purpose, SFB could create a regional SFB working group for promoting local products. Similarly, networking and clustering among similar SFB is proposed, creating a common platform for information sharing and provision of special services, e.g. research on new consumption habits, new market opportunities, product development (GR). Another proposal involving cooperation is creating regional platforms for the sale of artisanal food products (ES).

A second layer implies creating local SFBs associations (LT) or empower the role of SFB in already existing agri-food associations (ES, PL).

A third layer of proposals aims at widening the role played by already existing SFB associations: a wider implication in policy making (PL, RO, ES), the participation together with the administration in the establishment of local food markets and promotion cells (PT, PL). As well, more involvement in SFB's training for example on hygiene matters is demanded (PT).



3.6. Upstream and downstream actors

As for the **actors** placed **upstream** from SF and SFB in the value chain, actions proposed included the supply of good quality inputs and agricultural extension services by the **inputs' providers** (GH, MW, KN) and the offer of preferential loans for SF by **banks** (PL). In MW, they also emphasise the role of credit availability to SFB in order to add value to products.

In relation to **actors** placed **downstream** from SF and SFB, **public/private partnerships to support SFB**, like small abattoirs, can help reverse the current trend for centralisation which also negatively affects SF and their access to markets (UK). On the access to markets, super-markets chains in the region provide sufficient space in their shelves for local SF and SFB's products (GR) and local specialty shops appear (GR). There is cooperation between SFB and the Horeca sector (RO). **Certification agencies** were also appointed as responsible for implementing certification schemes and traceability procedures to increase consumers' trust (GR).

3.7. Research institutions

On the other hand, **research institutions** must orientate their research towards responding to SF's specific challenges (CV, GR), to make modern and sustainable farming techniques available to SF (MW, GR, PT) and could establish propagation material deposits with local traditional varieties for SF to use (GR). Another challenge to address by universities is to identify adequate markets for SFB's products for a more efficient promotion (PT). Researchers could shed more light on SF situation -e.g., providing data on local agri-food self-sufficiency (IT). The creation of an innovation network between universities, research institutes and cooperatives would support SF's role in regional food production (GR) as well as SFB's role through cooperation (GR). Academics also have an important role in boosting and driving activities to stimulate inter-sectoral joint actions (ES, RO) and in influencing the inclusion of SF-specific measures in the new CAP (RO).

3.8. Interactions among value chain actors

Finally, it is important to remark the crucial role for the support to SF that participants in the foresight exercises assigned to the **interactions among value chain actors**. Besides the importance of **cooperation** between SF and between SF and SFB to create solid networks (GR), including the reconstruction of local agricultural markets (PL), the development of **marketing plans** to promote local SF products will need the interaction of SF with the rest of downstream actors of the value chain, with support from the public administration (ES, PT, GR, NO, LV), and special support to short supply chains (GR). SFB act as innovation brokers for SF (RO). In addition, long term contracts between SF and SFB would strengthen their linkages (KN) and the participation of SFB on demonstration plots and field days on early maturing crops would allow them to know how SF are producing food crops.

Furthermore, participants from several regions pointed out the need to create **powerful interprofessional organizations** in the agri-food sector, involving farmers, cooperatives, other agri-food stakeholders, researchers and policy makers (MW, GR, ES). In this sense, fostering a culture of partnership is considered to increase the necessary willingness to associate and collaborate. One of the outcomes of strengthening cooperation is sharing knowledge and experiences, which can lead to develop new ideas and solutions (LV, RO). Similarly, other instance of reinforced cooperation across



the chain was mentioned in PT, where large retailers and consumers' organizations survey the availability of raw materials in the region to foresee how by-products can be utilised by SFB and then create added value products.

It was also identified (IT) that new RDP measures should include specific resources aimed at improving value chain coordination around local food products.

Box 3 includes some essential messages addressed to public administrations, SF and SFB.

Box 3. Key messages

- Local and regional administrations have in their hands tools to facilitate the integration of local SF and SFB into regional and local markets by means of a diversity of public-private partnerships.
- De-bureaucratisation and the simplification and tailoring of administrative requirements are essential to eliminate barriers that are preventing SF and SFB to access markets, public support and business opportunities.
- Agricultural cooperatives should professionalise and reinforce their capacity to respond to changing market demands, as well as provide advice and training to SF.
- SF and SFB should explore diverse forms of collective action and networking along the food value chain to strengthen their position, defend their interests and promote –in cooperation with public administrations- locally SF/SFB sourced food.

