



salsa

small farms
small food businesses and
sustainable food security

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Deliverable 5.1

The Governance of Small Farms and Small Food Businesses to support food and nutritional security

Work Package 5 Analysis of the Governance of Small Farms and Food chains

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1. Title

The Governance of Small Farms and Small Food Businesses to support food and nutritional security

1.1. Subtitle

Work Package 5 Analysis of the Governance of Small Farms and Food chains



1. Executive Summary

1.1 Overview

Small Farms and Small Food Businesses are impacted by a whole array of regulations, public policies, cooperative associations, social and network norms, and financial realities. These impacts effectively govern if, how, and with what outcomes Small Farms (SF) and Small Food Businesses (SFB) participate in regional food systems. Identifying governance arrangements that better enable SF and SFB to participate in the food system is key for understanding their potential to contribute to Food and Nutritional Security. The ways in which Small Farms and Small Food Businesses thrive under various governance arrangements is highly varied across regional and national contexts, across agricultural and farming sectors, and across different types of small farms. Based on qualitative and quantitative data collected from European and African case studies, this report identifies enabling governance arrangements across the following parameters:

- a. Regulatory/legal frameworks
- b. Public policies and programmes
- c. Private food chain governance
- d. Local or traditional arrangements
- e. Collective action/cooperative arrangements
- f. Subsidies and Other Financial Support

The scalar impacts and administration of arrangements was also considered at the household, community, regional, national, macro-regional (international), and global levels. And, the impacts to the main food system activities: production, consumption, processing, and distribution. Benefits to small food businesses (local, regional national and global) and consumers (low, middle, and high income) from the arrangements were also analysed.

1.2 Aims and Objectives

The overall objective of SALSA is to pursue and develop a better understanding of the *current and potential contribution of small farms and food businesses to Food and Nutrition Security (FNS)* in an increasingly globalised and uncertain world. For the purpose of the present work, we consider *what governs the ability of Small Farms and Small Food Businesses to effectively contribute to Food and Nutritional Security at household, community, and regional scales.*

1.3 Key Results

We identify 9 governance forms that qualitative data suggests are those that most enable SF and SFB to contribute to food security. These are:

Governance Forms identified by SFs/SFBs
1. Food Quality/Safety Regulations
2. Cooperative Arrangements and Associations
3. Climate Adaptation Frameworks
4. 'Alternative' or 'Traditional' Agri-Food Networks
5. State Subsidies and Financial Support
6. Rural Development Programmes
7. Farm Advisory and Extension
8. Mutual Farming Practices
9. Public Policies and Programmes

From within these 9 governance forms, comparative analysis of quantitative and qualitative data highlight 3 forms that data indicates may be *most enabling* to SF and SFB to contribute to food security. These are:

1. Cooperative Arrangements and Associations
2. Climate Adaptation Frameworks
3. State Subsidies and Financial Support

Quantitative data suggests that **the emergence of and participation in other governance forms may centre around the level of subsidy uptake**. We recommend this as an area for future research. High subsidy uptake and regulatory frameworks are most evident in more developed economies. SF in most European regions are highly dependent on EU and State monetary support for their survival. Less developed economies, where subsidy uptake is low and regulatory frameworks are less evident were instead more reliant on cooperatives and help from neighbours. Subsidies in African regions are in most cases the result of public/private partnerships between devolved systems of governance and private civil society organisations (e.g. NGOs).

While quantitative data showed that there were low levels of cooperative participation relative to other forms of governance (e.g. subsidy regimes), qualitative data instead suggested that they were the most enabling form of governance for SF and SFB. We attributed this result to the complexities of why participation in cooperatives is low. Reasons included: resistance to cooperatives based on socio-political histories; lack of access to cooperatives; and low levels of participation in regions where subsidy uptake was high. We suggest that further investigation is needed into the low participation of SF in cooperatives, and how this could potentially be bolstered.

Adaptation to environmental change is a critical issue for SF, and the lack of national level policy that has been designed for and is implemented at the regional level. adaptive strategies is the most significant gap in governance for SF and SFB. For this reason we highlight adaptation governance as a form that is needed to enable SF and SFB to contribute to FNS. Research participants in areas that are more effected by environmental change showed high levels of concern about the stability of the food system in those regions (Greece RR8, RR9, RR10; Italy RR11, RR12; Cape Verde RR2; Ghana RR7; and Kenya RR13). The destabilising effects of environmental change on food systems were the highest concern for SF in the African case studies. While climate adaptation governance is identified in this analysis as 1 of the 9 governance forms that are enabling for SF and FNS, there is no evidence in the primary data of current examples of locally-scaled adaptation governance in any of the reference regions.

Results show that SFs make the most significant contribution to food security where these farms are subsistence based, or when mixed commercial farms contribute to family income in less developed economies. SF and SFBs do not currently see themselves as playing a major role in regional food security. SF and SFBs face multiple challenges in terms of land access, production support, and access to markets. Existing governance arrangements are marginally effective at meeting the above challenges, and rarely if ever do they meet all these challenges and enable SF and SFB to effectively contribute to regional FNS.

1.4 Policy Recommendations

Small Farms and Small Food Businesses are important to regional food security, particularly at the household scale, but there is also huge potential for these small producers to contribute to re-localised food network. Poor access to land, insecurity of tenure and the loss of small farms due to abandonment all threaten their contribution.

- **Recommendation:** Agricultural support programmes should expand opportunities for securing land access for new entrants and support farm succession planning, particularly in European regions where rural depopulation pressures are prevalent, and African regions in cases where land tenure is threatened.
- **Recommendation:** Where there is capacity and will, small farms should be better supported to develop into more viable and sustainable farm businesses. This can be

achieved through favourable taxation, as well as through funding and support for farm business improvement planning.

- **Recommendation:** Public/private governance arrangements in Kenya and Ghana should support the capacity to form, and access, cooperatives to allow better market access for small producers and to prevent SF and SFB being exploited by middle-men.

For SFs and SFBs to contribute to food security requires that they produce enough food, of high quality, but also that this food can be processed, packaged, and or distributed within this regional food system.

- **Recommendation:** Rural Development Programmes should support the establishment of small-scale processing, packaging and distribution enterprises which enable small farms products to enter (and remain in) the regional food system.
- **Recommendation:** Agricultural extension services should be more widely available in remote rural regions, and better equipped and knowledgeable about the specific needs of small farms, so they can provide more targeted production support.

Small Farms and Small Food Businesses can only contribute to regional food security if they have reliable access to markets. The best markets for SFs/SFBs are usual carved out of a diverse strategy whereby SFs have access to multiple outlets for their products.

- **Recommendation:** National Governments should consider a more tailored approach to the regulatory standards placed on small farms and small food businesses, which will facilitate market access for these small producers without compromising on food safety.
- **Recommendation:** Regional-scale food strategies are important for identifying and supporting a diversity of outlets for SF/SFBs. These strategies should explore support for traditional markets, alongside more innovative approaches such as the support for new virtual food networks.

Increasingly, changing and volatile environmental conditions have huge impacts on the ability of small farms to produce enough food for themselves and the regional food system.

- **Recommendation:** Climate change adaptation governance should be prioritised as a matter of urgency for the sustainability of small farms within the food system. This is true for all regions, but especially so in less developed economies in cases where subsidy uptake and cooperative participation is low, such as the African reference regions. Secondly, we recommend that lessons are drawn from those regions experiencing environmental change to inform the development of adaptive strategies elsewhere.

1.5 Next Steps

The next steps for the analysis of governance of small farms for food security is to identify the common elements that enable small farms across this diverse data set. Here we will evaluate both examples of formal arrangements that currently enable and consider what are the institutional structures that support these arrangements. We will also consider more informal relations that small farms see as enabling and consider what characteristics or elements allow them to enable and how these may be incorporated into other governance mechanisms. It is also important to consider the gendered impacts of current governance arrangements, as well as any future policy recommendations. Toward this end, future work will evaluate the gendered distribution of responsibilities and rewards that derive from the governance of small farms. The aim here is to be able to distil lessons for policy makers and small farm stakeholders

to support decision making that empowers small farms and small food businesses to be active participants in regional food systems. These activities will be carried forward in the next phase of research within SALSA.



2. Introduction

2.1. SALSA and Food and Nutritional Security

The ‘wicked problem’ of food insecurity challenges traditional governance mechanisms (Pereira and Drimni, 2017; Siddiki et al 2015). There is growing acceptance that food security is a challenge that can only be met by looking at the links between the agricultural and land-management practices that ensure adequate availability of food, barriers to and equity in access to food, as well as the various social and material conditions that determine whether and how people to convert food into energy. To understand how governance mechanisms support food security (or not) requires looking beyond just government or public sector interventions to focus more broadly on the diversity of actors and institutions, operating across different scales, that shape how food is produced and enters the food system. For SALSA this means that we must consider the various arrangements and mechanisms that govern the productive activities of Small Farms (SF) and Small Food Businesses (SFB), but also all of the multitude forms of governance that are important for SF/SFBs in readying and bringing their products to market, and which create, shape, and sustain demand for SF/SFB products. This empirical focus on *small* rural producers places SALSA in a unique position to be able to trace the way these various governance forms interact with one another in the pursuit of food security outcomes at the regional scale.

There has been a surge in interest in governance for food and nutritional security (FNS), as well as several review papers that identify some key areas that require further investigation (see Candel 2014). The focus of much of the current debate about the governance of food security is on global or national scale forms of governance, as well as in defining normative modes of ‘good’ food security governance (ibid). There is decidedly less focus on ‘actually existing’ food security governance and its impact on small producers (ibid). This is partly the result of limited empirically-grounded discussions of the governance of FNS at sub-national scales.

The research that has focused on the governance of food security has been limited in its geographical focus, often conflating food security governance with the governance of global development aid (see Lang and Barling, 2012; Jarosz, 2014). Much of this work has emphasised the significance of macro-regional or global scales of governance and looked primarily at measures which explicitly target increased agricultural production to increase the availability of food. As such, there has been less analysis of the various governance arrangements that de-facto govern access to and stability of food provision at the national, regional, and/or local scales (Candel, 2014). When we look at food security governance at these scales, we rarely see examples of initiatives that explicitly, or only, target food security, rather a whole array of agri-food governance mechanisms that impact upon food security in different ways for different people. For example, various state-led public health programmes to encourage healthy eating may improve food utilisation among only certain households in certain regions. Or various forms of food certification may improve the availability of certain niche products to urban consumers, while at the same time enhancing on-farm incomes and thereby improving the access to diverse food at the farm household scale.

Research within SALSA allows us to consider that food security governance is often not conceived as such, but rather takes the forms of various policies, programmes, networks, and norms, all of which impact upon small producers in various ways, in diverse contexts, and with quite diverse outcomes. We would proffer that where these governance forms enable FNS is where they can deliver on multiple dimensions of FNS for the greatest number of people. Thus, a key aim of the governance analysis is to explore which



governance forms and mechanisms enable, in what contexts, and for whom. We should then go on to subject these insights to a meta-analysis to reveal broader patterns of characteristics of enabling mechanisms. These enabling characteristics still show great degrees of regional variation, which means it may be prudent to consider what, if any, geographical/macro-regional trends exist. Moreover, we must consider not only currently enabling mechanisms, but also the potential of these mechanisms to further enable or continue enabling in the face of a future shocks and/or innovations.

2.2. Aims and Objectives

The aim of WP5 is to answer the question: What governs Small Farm and Small Food Business activities? The specific aim of this report (and the related task 5.1) is to identify and assess the forms of governance that influence, both positively and negatively, the contribution of small farms and small food businesses (SF/SFB) to Sustainable Food and Nutritional Security (FNS). In doing so, the work proceeds around the following objectives:

- To analyse data from 20 European and African Reference Regions **to identify** the state, market, and social/civil arrangements that influence SF/SFBs
- **To classify** these arrangements in terms of their form, function, the food system activity they govern and the key actors and distribution of power within these governance arrangements
- **To assess** the current impact of the identified governance mechanisms on SF/SFBs and on their ability to contribute to FNS at both regional and household scales

2.3. Conceptual and Theoretical Underpinnings

A food systems perspective is inevitable, covering food from production to consumption. The term's entry to common parlance suggests awareness of an inter-related and systems-bound entity . . . but policymakers find it hard to address the inter-relatedness of the whole food chain and the whole food cycle (Lang and Barling, 2015).

There are some key concepts and normative goals that are laid out in the SALSA Conceptual Framework (CF) which are important for designing the methodology and structuring the analysis of governance in this deliverable (Grando et al. forthcoming).

Governance

The SALSA conceptual framework defines food system governance as; as any set of “formal or informal rules, based in practical arrangements, routines and shared values which coordinate or legitimate market or extra-market transactions” (Grando et al. forthcoming). These arrangements are essentially agreements between parties which SF/SFBs participate in or are affected by. Although these agreements can be quite specific in their nature and scope, there are some key forms of arrangements that are particularly salient for small farms and small food businesses. A discussion of governance forms then, creates the possibility of generating insights in a comparative governance analysis. Finally, these agreements are made possible by the conditions of the social, legal, or institutional settings within which

they operate-what we may wish to call a framework for governance. Not surprisingly, these frameworks vary greatly between geographical and institutional contexts, so that an arrangement that works well in one place, may not do so in another.

‘Governance’ is different from, but inclusive of ‘Government’, which refers to “formal institutional structure and decision-making process of the modern State” (Mantino, 2009: 4). And significantly, various scholars have highlighted the diminishing role of the State and the increased role of private market actors in food governance (Faggotto 2015; Havinga et al. 2015; Marsden et al. 2010; Verbuggen and Havinga 2017). On the other hand, Renting et al. (2012) highlight the evermore active role of consumer and civil society groups in reshaping alternative systems of food provision and in shaping public opinion through activism and lobbying. In all this, there is an evolving role for the State in regulating for food safety, supporting the agriculture sector and promoting rural development, and in safeguarding populations from a variety of food-related shocks and disturbances (Lang, 2003; FAO, 2018; UNDP, 2012). And increasingly, food governance scholars are highlighting the emergence of hybrid governance forms, which have mixed results depending on the food system within which they are embedded (see Lamine et al. 2018). Thus, for the analysis of governance arrangements that link small farms to the food system must consider this ‘triad’ of governance arrangements, as well as potential shocks or ‘innovations’ that might spur new and hybrid forms of governance (see Figure 1).

This definition of governance arrangements is important because of the way SALSA conceptualises the contribution of the food system to sustainable food and nutrition security. For SALSA, the food system is comprised of activities that encompass production, processing, distribution, and consumption. This broad view of the activities that comprise the food system necessitates attention to the multitude of potential actors who may participate in the governance of the food system. The ‘actually existing’ governance of SFs and SFBs’ contribution to FNS occurs across these four spheres of activity, and with mixed results for different types of producers and consumers.

Small Farms and The Territorial Food System

SALSA research with small farms proceeds with a definition of small farms based both in territorial and economic size. Small farms are defined as those with holdings below 5 hectares in size, and below 8 European size units (ESU). Although some farms of this size are primarily self sufficient, thereby contributing to household and family food and nutritional security, the great majority of small farms rely on a regional food system for both agricultural inputs as well as as an outlet for farm products. Thus to understand the contribution of these small farms to food and nutritional security necessitates an inquiry into the governance forms that characterise and shape SFs as they operate in this food system. SALSA builds our understanding of the food system out of conceptualisations by Ericksen (2008) and Ingram (2011) who see the food system as consist of actors and activities, interacting to produce outcomes (Grando et al. Forthcoming). The outcome of interest here is food and nutritional security, and the interactions that are the focus of WP5 and this deliverable are those that set the rules, both formal and informal, that underpin those interactions.

The food system, as defined in this deliverable, is inclusive of all activities involved in the production, processing, transport and consumption of food. This includes the governance and economics of food



production, the environmental impacts that are produced, and the sustainability and resilience of the system as a whole. We include issues of health and well-being in this definition, including food safety and nutrition. Because the SALSA project spans reference regions across both developed and developing economies there is a high level of diversity in the way food systems operate across reference regions. For example, in some developing regions, where there are a high number of subsistence farms, the food system is closely linked with sustainable development goals. Different types of food systems evident in the research data also show differing levels of urgency in regard to policy concerns.

Food and Nutritional Security

The SALSA CF takes forward a definition of food and nutritional security that is built on the **four dimensions of food security** as defined by the FAO. These are **Food Availability, Food Access, Food Utilisation and Food Stability**. The relative significance of each of these dimensions will be dependent on the scale of analysis and the specific characteristics of a food system. WP5 will consider how the identified governance arrangements support, undermine, or are indifferent in relation to each of dimensions.

A central thesis of the governance work in SALSA is that policies to support FNS must be place-based, which means it considers the diversity of territorially-embedded food systems. These governance arrangements should give local actors more control over local resources and the ability to retain the benefits of the food system locally. Thus, Governance too must be understood in relation to the territory upon, across and within which they operate. WP5 adopts a **spatially-sensitive analysis of the governance** arrangements that influence the contribution of SF/SFBs to food security. It is also important that there is scalar coordination between the governance analysis and the formulation of any subsequent SALSA policy recommendations. Thus, an important contribution of the identification and preliminary analysis of governance arrangements in WP5 will be to provide insights as to the potential commonalities or correlations between various regional and national contexts to aid in the selection of territorial scale for analysis in WP5 and data processing and policy recommendations in WP6.

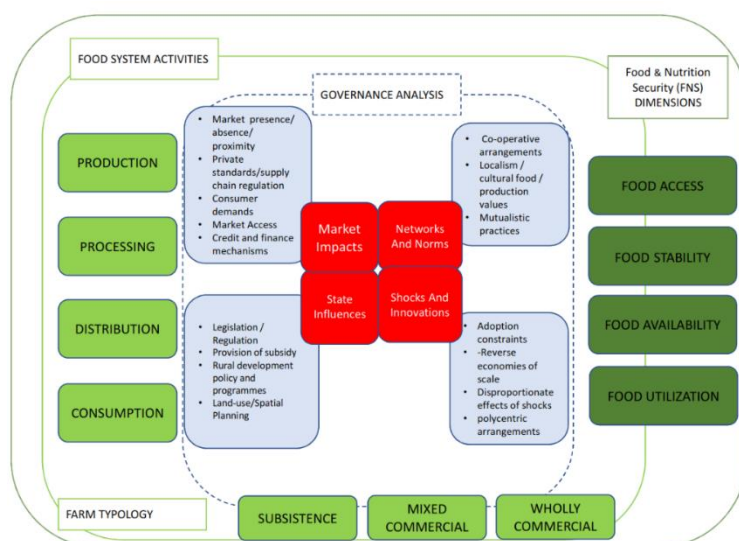


Figure 1: Governing SFs and SFBs for FNS: Key Concepts

3. Methodology

3.1. Data Collection

Data for the analysis set out in this report was sourced from the following reports and materials:

1. Regional Workshop Reports
2. Interview material (particularly the findings from section 5 , questions 39-46)
3. Key Information Interview Material
4. Food System Regional Report (esp. section 5: Governance)

The Regional Workshop Reports, Food System Regional Reports, and Interview Survey data were the primary sources of data for the analysis carried out in this deliverable. The Regional Workshop Report informed analysis of the influence of markets, networks and norms, and the state, on the development and stability of governance forms, and whether these arrangements were enabling to SF and SFB. Innovations and shocks identified in the Report were also analysed to identify emergent governance arrangements and forms, or governance/policy gaps. The Food System Regional Report was used to cross-reference preliminary analysis of governance arrangements identified in the Regional Workshop Reports (Section 5. Governance). The Food System Report was also critical to providing socio-historical context to the governance analysis (Sections 1. and 8.), important for understanding patterns of emergence of, and resistance to, particular governance arrangements (see Discussion section). Quantitative interview survey data was used in second stage analysis as comparative data, and in geographic analysis of key governance forms. Key Information Interview Material, secondary source research, and report author meetings were also used as secondary sources to add texture to and corroborate the final stages of the analysis.

3.2. Methods

The aim of this deliverable is to identify, classify, and assess governance arrangements that enable small farms and small farm businesses to contribute to food security. In the initial stages of the analysis, we established a set of research questions and tasks that assisted the development of our methodological approach. These are illustrated in Figure 2 below.

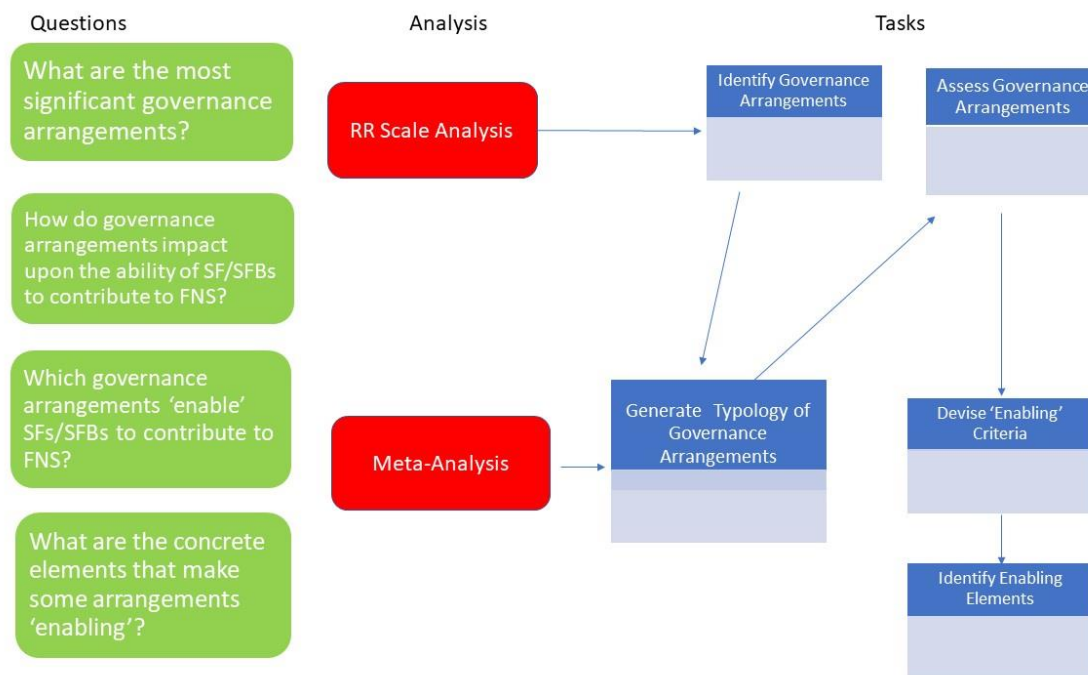


Figure 2: WP5 Framework for Analysis

Data analysis was carried out in three defined stages: Stage 1. was primarily concerned with the identification and classification of governance arrangements against sets of criteria developed around the SALSA conceptual framework; Stage 2. was primarily concerned with the refinement and comparison of data, to draw out themes and relationships; Stage 3., was primarily concerned with assessing evidence collected in Stages 1. and 2. to: a) identify a refined set of governance forms; b) analyse these within 3 governance contexts that we assessed as fundamental to enabling SF and SFB to contribute to food security; and c) compare quantitative and qualitative results.

Stage 1. Analysis

In the first stages of analysis Regional Workshop Reports and Food System Regional Reports were coded, using the qualitative data analysis software NVivo (QSR International). We identified governance arrangements as they emerged in the data and created a node for each of these arrangements. These were then classified using sub-nodes: a) currently enabling; b) potentially enabling; or c) currently disabling to a small farm or small farm business' capacity to contribute to food security (see Figure 3). This was repeated with as many governance arrangements as could be identified across the data sources.

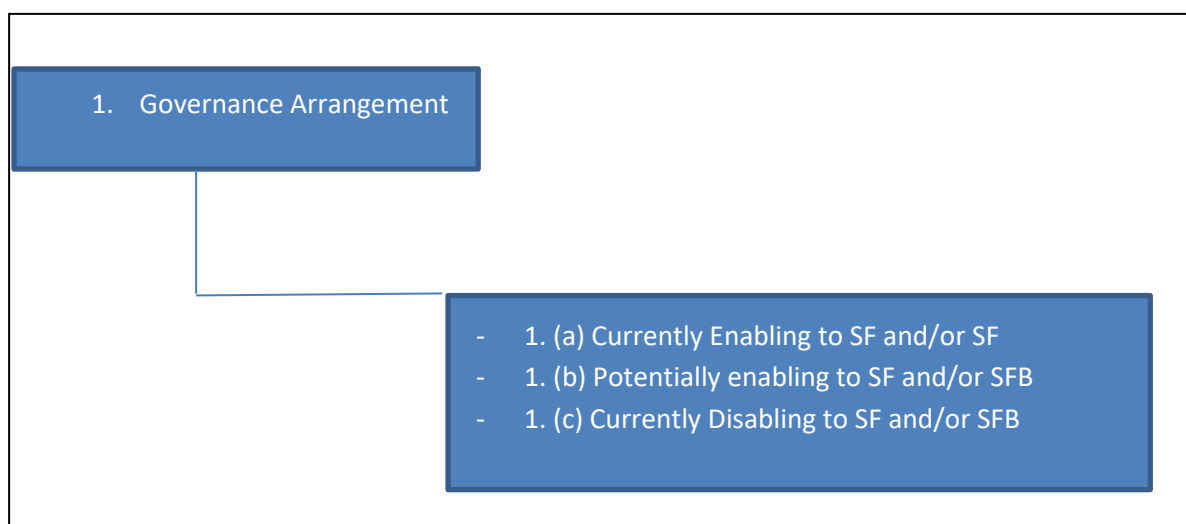


Figure 3: Form of Nodes and Sub-Nodes for Stage 1. NVivo Analysis

Data from these sources was then transferred from the NVivo analysis, via the generation of reports that were run to refine aspects of the data against a new set of classifications. This reclassification aimed to refine the governance arrangements identified in the NVivo analysis against more detailed criteria drawn from the SALSA conceptual framework. Figures 4-11 represent columns of criteria in this reclassification (we used Microsoft Excel). Each governance arrangement (e.g. a cooperative) identified in the NVivo analysis was entered against the columns' criteria, with options for: (a) yes; (b) no; (c) possibly; and (d) not applicable.

Governance Typology										
Social Safety	Rural Socio-Econ	Rural Infrastructure and Connectivity	Food Standards/Supply Chain Regulations	Product Certification / Signation	Modes of Exchange and Market Access	Culinary / Dietary Norms	Research / Education / Outreach	Rural Spatial Planning/Land Access	International Trade Policy/Regulation	Subsidies / Grants / Funding
✓	N/A	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	✓

Figure 4: Classification of Governance, Stage 2 Analysis

Governance Forms					
Reg/Legal Framework	Public Policies/Programmes	Private Standard	Local or Traditional Arrangements	Collective Action	Subsidy
N/A	N/A	N/A	✓	✓?	N/A

Figure 5: Classification of Governance, Stage 2 Analysis

A	B	C
Actors/Authorities	What does it govern?	Relation to Supply Chain

Figure 6: Classification of Governance, Stage 2 Analysis

Scale of Impact/influence (tick all that apply)						Scale of design and implementation (all that apply)					
Global	EU/macro-reg	National	Regional	Sub-regional	Local	Global 2	EU/macro-reg 3	National 4	Regional 5	Sub-regional 6	Local 7
N/A	N/A	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	✓	✓

Figure 7: Classification of Governance, Stage 2 Analysis

Food System Activity					Which farms does it impact*? (*waiting on Farm Typology)			
Production	Consumption	Processing	Distribution	Other or N/A	Subsistence	Mixed Commercial	export-oriented Commercial	Other farms (large)
✓	✓	✓	N/A	N/A	✓	N/A	N/A	N/A

Figure 8: Classification of Governance, Stage 2 Analysis

Which food businesses does it impact?					Economic Which consumers does it impact?			
local 9	regional 10	national 11	global	Other (larger businesses)	low-income	middle-income	high income	Other or N/A 13
✓	✓	✓	✓	✓	✓	✓	✓	✓

Figure 9: Classification of Governance, Stage 2 Analysis

A	B	C	D	E	F	G	H	I
Geographical Which consumers does it impact?					Enabling Dimensions of FNS*			
local 14	regional 15	national 16	global 17	Other or N/A 2	Availability	Access	Utilisation	Stability
N/A	N/A	N/A	N/A	N/A	✓	✓	✓?	✓

Figure 10: Classification of Governance, Stage 2 Analysis

A	B	C	D	E	F	G	H
Shocks/innovations	Relevant Product*	Significance (1-4)	Enabling for SFs/SFBs	Women in Leadership Roles	Women's Participation in Decision-Making	GA explicitly addresses Gender	Other Comments
	N/A	2	Yes	No input	No input	No input	

Figure 11: Classification of Governance, Stage 2 Analysis

Stage 2. Analysis

Once data was classified in Stage 1., further analysis was conducted to refine and compare data in order to identify emerging themes and relationships. The main tasks of this stage were threefold. First, data was cross-referenced and contextualised using socio-historical evidence from the Food System Reports and secondary sources. We met with Regional Workshop Report authors to clarify data and discuss preliminary analysis for validation. Secondly, data was developed as visual networks (mindmaps) as a way of organising and discussing themes and relationships. Thirdly, qualitative data was compared with quantitative data from the Interview Survey.

The qualitative-quantitative comparison was based on a quantitative analysis of questions 39-45 of the Interview Survey Data (i.e. those questions pertaining to types of governance):

Questions

- 39: Do you have access to subsidies or any other kinds of public financial support? (Yes or no)
- 40: Approximately what percent of your farm income do these subsidies represent? (%)
- 42: Are you a member of a co-operative or an association? (Yes or no)
- 43: Do you receive support (financial, technical, labour, in kind or other) from neighbours or relatives? (Yes or no)
- 44: Do you have access to production and marketing advice or training (e.g. through farm advisory services)? (Yes or no)
- 45: Are there government or other regulations (e.g. supplier purchasing standards, hygiene regulations) that make it easier or more difficult for you to produce or market your farm's commodities? (Yes or no)

Before the analysis was run, some data cleaning was required. In the 'Yes or no' questions there were several responses which were not just 'Y' or 'N'. These were recoded to Yes or No responses where it seemed sensible to do this. Other values (such as numbers, or values like "_") were treated as not applicable. Similarly, the percentages in question 40 had values which were unclear – e.g. does "0.1" mean 0.1% or 10%? Anything which was unclear or more than 100 was recoded as not applicable. Other values were presumed to be a percentage. The results of the quantitative analysis are included as Appendix 5.2

Stage 3. Analysis

The final stage of analysis involved a hermeneutic assessment of earlier results to establish those governance arrangements that were most enabling to the ability of SF and SFB to contribute to FNS. First, governance arrangements were refined into 9 key governance forms through a process of close reading, comparison, and discussion. Secondly, these 9 forms were further categorised under a concept we refer to here as 'governance contexts. Three contexts were developed around broad factors that we identified as fundamental to enabling SF and SFBs:

1. Factors influencing the ability of SFs and SFBs to operate within a given territory.
2. Factors influencing how much SFs and SFBs produce and/or process, and how they produce and/or process it.
3. Factors influencing the ability of SFs and SFBs to participate in market or extra-market exchange.



Both the 9 governance forms and the 3 governance contexts are set out in detail in the Results section.

3.3. Methodological Constraints

Data analysis for this deliverable was based on large quantities of primary qualitative data, collected across 30 reference regions, in a range of different languages. As a result, data was particularly decontextualised from the environment in which it had been collected. There are several problems we identified as arising from this research scenario that needed to be considered in our methodological approach. First, most project researchers were tasked with translating data (such as interview and workshop data collected at the local level) from the national language to English to produce the various reports and materials from which we sourced our data. While translation is a practicality of international collaboration, meaning will inevitably be lost in the process, and as such translated data needed to be read with this in mind to identify gaps, inconsistencies, and questions that might need to be pursued as a result. A second practicality is that it is not always possible for the same research teams to both collect and analyse the data. This was the case with the data forming the basis of this analysis. While it is broadly acknowledged that there are ontological challenges in transferring data from the field to its place of analysis (Massey, D., 2003), this is particularly so when the production of data, and the analysis of data is further separated across different teams of researchers.

In response, we designed ways of recontextualising the data in our methodological approach. Data was cross-referenced against other data sources; for example, emerging patterns of governance forms were checked against socio-historical data in other reports (e.g. Food System Regional Report). Where this wasn't available, background research was conducted using secondary sources. Data was referenced against the interview survey data, which proved an important cross-referencing exercise for our analysis. Meetings were also held with the Regional Report authors which were essential in cases where questions had arisen from the translation, points of interest to our analysis needed to be further explored, and our preliminary analysis needed to be corroborated.

Analysis was also a progressive exercise, as we worked in parallel with the timelines of other Work Packages. In practical terms, our analysis had to accommodate, and make provision for, sources of data that were dependant on the constraints of fieldwork. This required a strategy for conducting analysis in a number of discreet stages, and to build in regular reviews to adjust and develop methods in response to the data as it arrived. This also applied in cases where data couldn't be produced, or where data gaps occurred due to partners leaving the project. (e.g. of the original 30 reference regions scheduled to produce a Regional Workshop Report, only 21 were received). This limited some of our ambitions, particularly in the area of macroregional comparative analysis. Our main analytical aim—how governance arrangements enable small farms to contribute to food security— will be greatly enhanced by the finalisation of SALSA small farm typologies. In anticipation of this, we relied on general categories that were evident in the data (e.g. subsistence, mixed commercial, commercial/export).



4. Results

4.1. Introduction-Results at a glance

The Small Farms (SF) and Small Food Businesses (SFB) who participated in the Regional Workshops identified a range of governance arrangements and mechanisms as particularly relevant in their region and for the types of SF/SFBs they were responsible for. These forms emerged primarily out of the discussions about key state, market, and social influences in the Regional Workshops, as well as through follow up interviews with regional teams. Taken together, these responses were analysed and clustered around 9 governance '*forms*'. These forms were derived through the thematic categorization of governance arrangements in terms of their enforcement mechanisms, the key actors, and their scale of operation. These forms were further refined through engagement with the literature on agri-food governance and the SALSA conceptual framework. Of the key forms that emerged out of the qualitative data, there were 5 forms which were represented in the farm survey data. These forms of governance were captured in survey questions 39, 42-45 (see appendix 7.1). The frequency with which respondents indicated their participation or interaction with a governance form provides further insights in to the overall significance of these forms for SFs/SFBs (see table 1.) This classification of the governance arrangements across all 20 reference regions forms a typology of governance forms that matter for small farms and small food businesses. As expected, these forms exist across state, market, and civil/social spheres.



Governance Forms identified by SFs/SFBs	Arrangements/Mechanisms	Frequency in Survey Data
1. Food Quality/Safety Regulations	Private quality standards, public safety regs, animal welfare regs	49.4%
2. Cooperative Arrangements and Associations	Producer cooperatives, farmers associations	46.2%
3. Climate Adaptation Frameworks	National adaptation frameworks	N/A
4. 'Alternative' or 'Traditional' Agri-Food Networks	Local Food Movements/Valorization, Food Assembling, Virtual Markets	N/A
5. State Subsidies and Financial Support	Direct Payments, State Insurance Programmes, Food Aid	73.1%
6. Rural Development Programmes	CAP Pillar 2 (young farmers, small farms scheme), International Aid	N/A
7. Farm Advisory and Extension	Climate Adaptation Support	70.2%
8. Mutual Farming Practices	Labour sharing, food swap, support from neighbours or friends	54%
9. Public Policies and Programmes	Public Health Progs, Public Procurement agreements	N/A

Table 1: Identification of Governance Forms

The Regional Workshops also highlighted a great deal of ambiguity around the barriers, challenges, and enabling capacity of these various governance forms. The data revealed some common themes which pointed to certain conditions under which these forms enable, as well as common barriers to them doing so (see table 2). Despite the identification of common conditions under which these governance forms enable, very few of these governance forms were viewed as universally enabling or limiting, and workshop participants were able to reflect on the diverse outcomes of these governance arrangements for different types of SFs and SFBs. The richness of these insights will be explored more in the following sections.

Governance Forms identified by SFs/SFBs	Enabling Yes, when . . .	Barriers
1. Food Quality/Safety Regulations	Y= In areas where tourist markets are significant	Cost of compliance, market exclusion
2. Cooperative Arrangements and Associations	Y= When organised around a key product, holding national monopoly	Low Cooperative Participation* (46% across sample)
3. Climate Adaptation Frameworks	Y= When provides new sources of funding for weather prediction, infrastructure, and drought/pest resistant crops	State-based frameworks are maladapted to small farm needs in African regions

4. 'Alternative' or 'Traditional' Agri-Food Network	Y= When there is sufficient consumer demand and critical mass of network actors	Economies of scale
5. State Subsidies and Financial Support	Y=for all farm types, but esp subsistence farms	Transaction costs for small farms
6. Rural Development Programmes	Y=When tailored to local conditions	May be maladapted to regional conditions
7. Farm Advisory and Extension	Y=Focus on production enhancements	Accessibility for small farms
8. Mutual Farming Practices	Y=More significant where subsidy uptake is lower, or where cooperative participation is lower	
9. Public Policies and Programmes	Y=When SF are directly supported	Public will and finances, SF capacity

Table 2: Conditions of Governance

Both the Regional Workshop and the Farm Survey data highlighted regional variability in terms of the governance forms that participants identified and participate in. Through the analysis of the Farm Survey, these regional variations can be visualised in a way that provides important context for the qualitative insights from the Regional Workshops. The attached maps (figures 12-15) show regional patterns of a.) participation in cooperatives and producers association, b.) access to subsidies and state support, and c.) reliance on forms of mutual support and d.) the impact of food and farming regulation on small farms and small food businesses. The diversity and variance in data presented here emphasises the need to drill into the ways in which these forms of governance are territorially embedded and with what outcomes for food and nutritional security. To understand how SF/SFBs are influenced by these governance forms also requires attention to the diversity of small farm types. A better understanding of the regional variations in how SF/SFBs are governed may also reveal important opportunities for collaboration and learning across territorially embedded food systems.



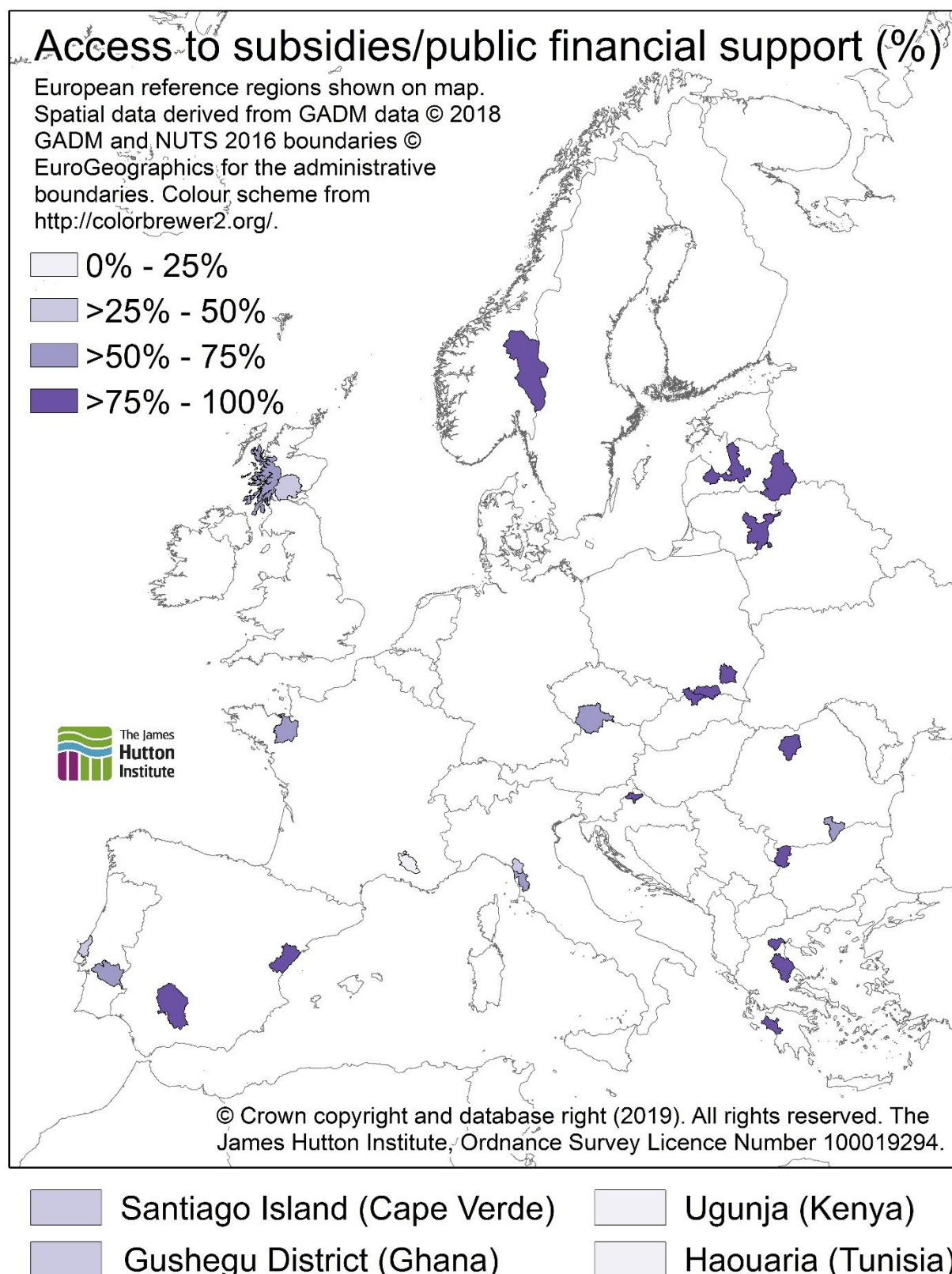


Figure 12: Mapping Access to Subsidies

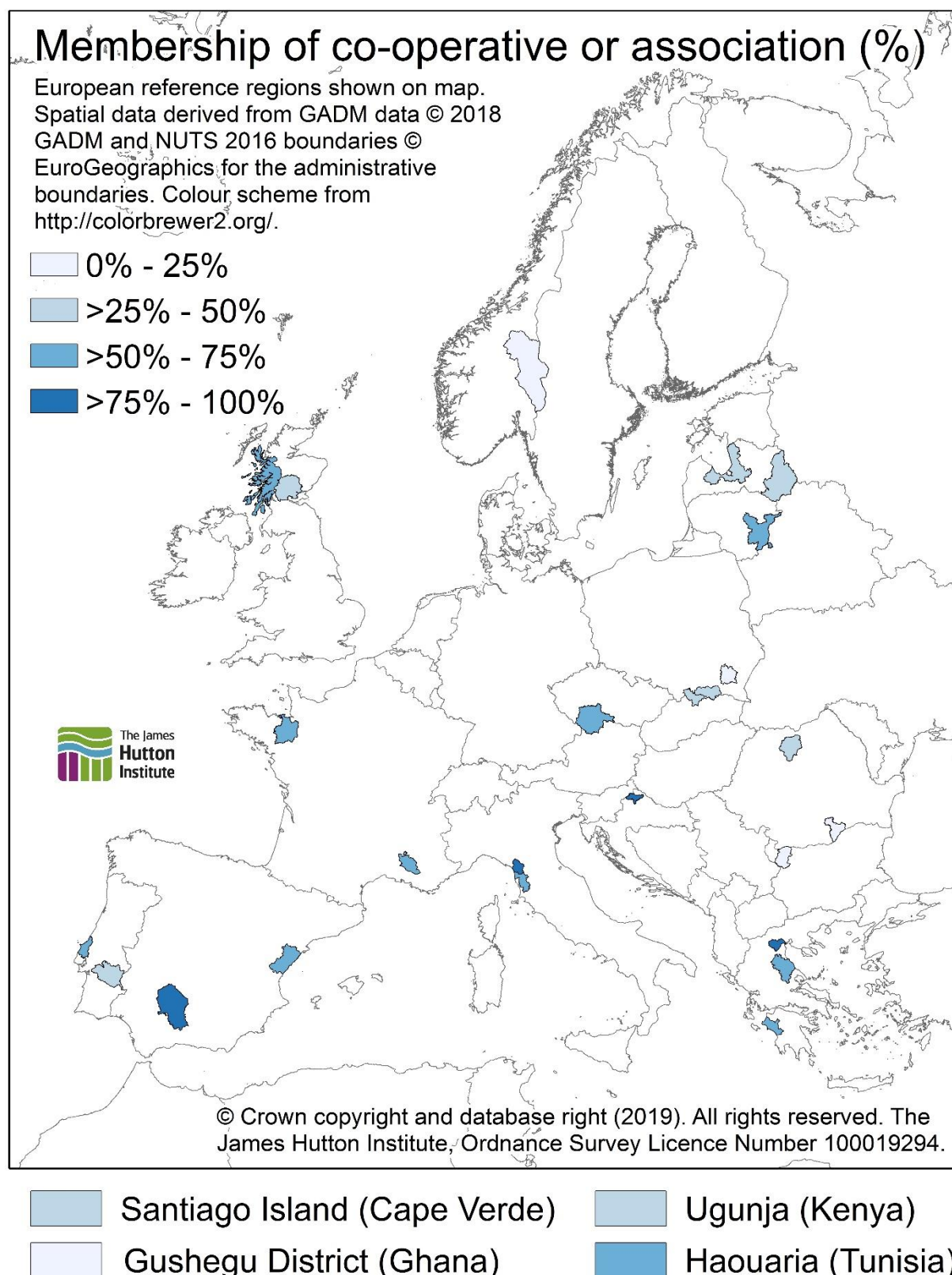


Figure 13: Mapping Cooperative Membership

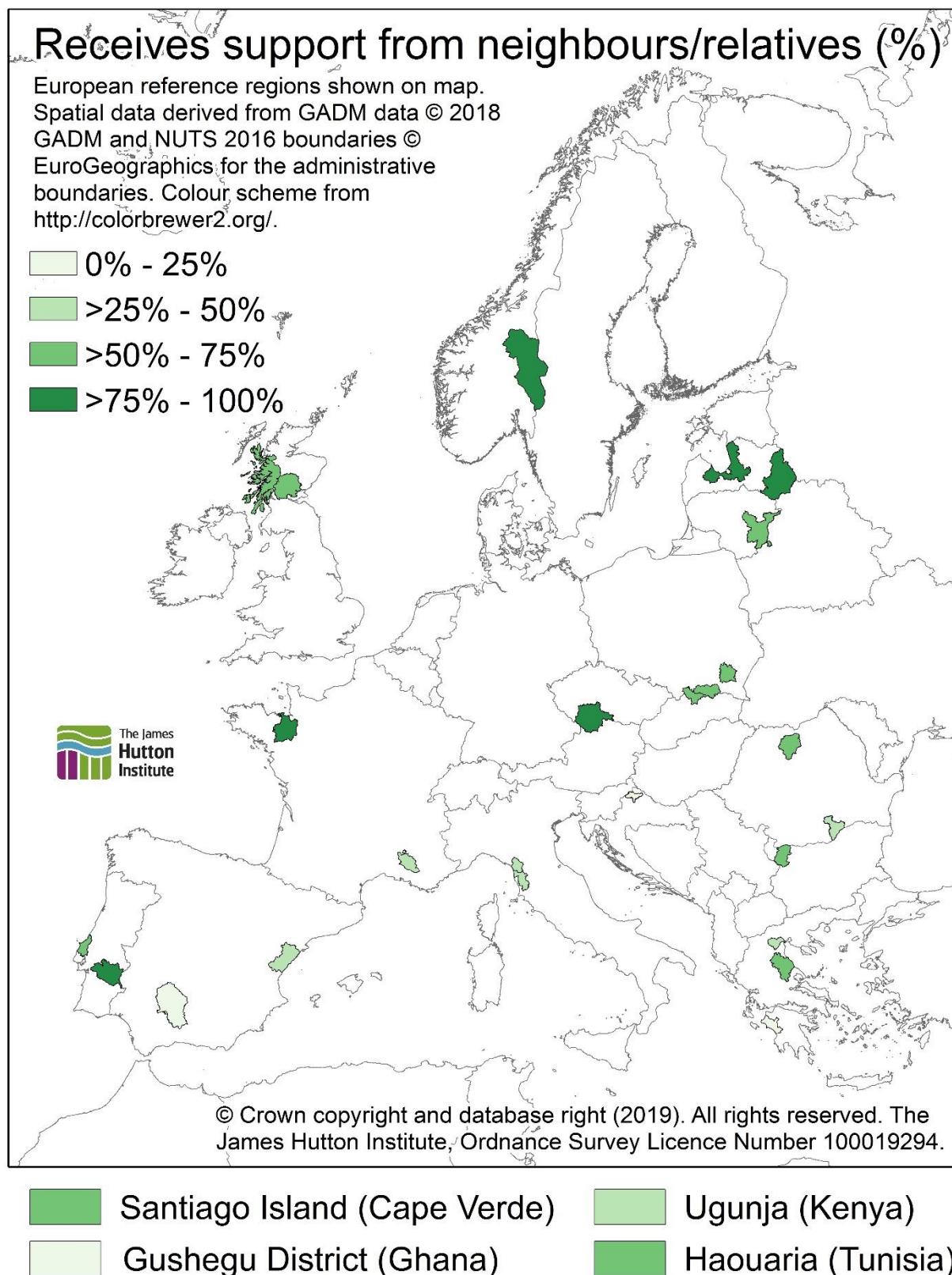


Figure 14: Mapping Social Support

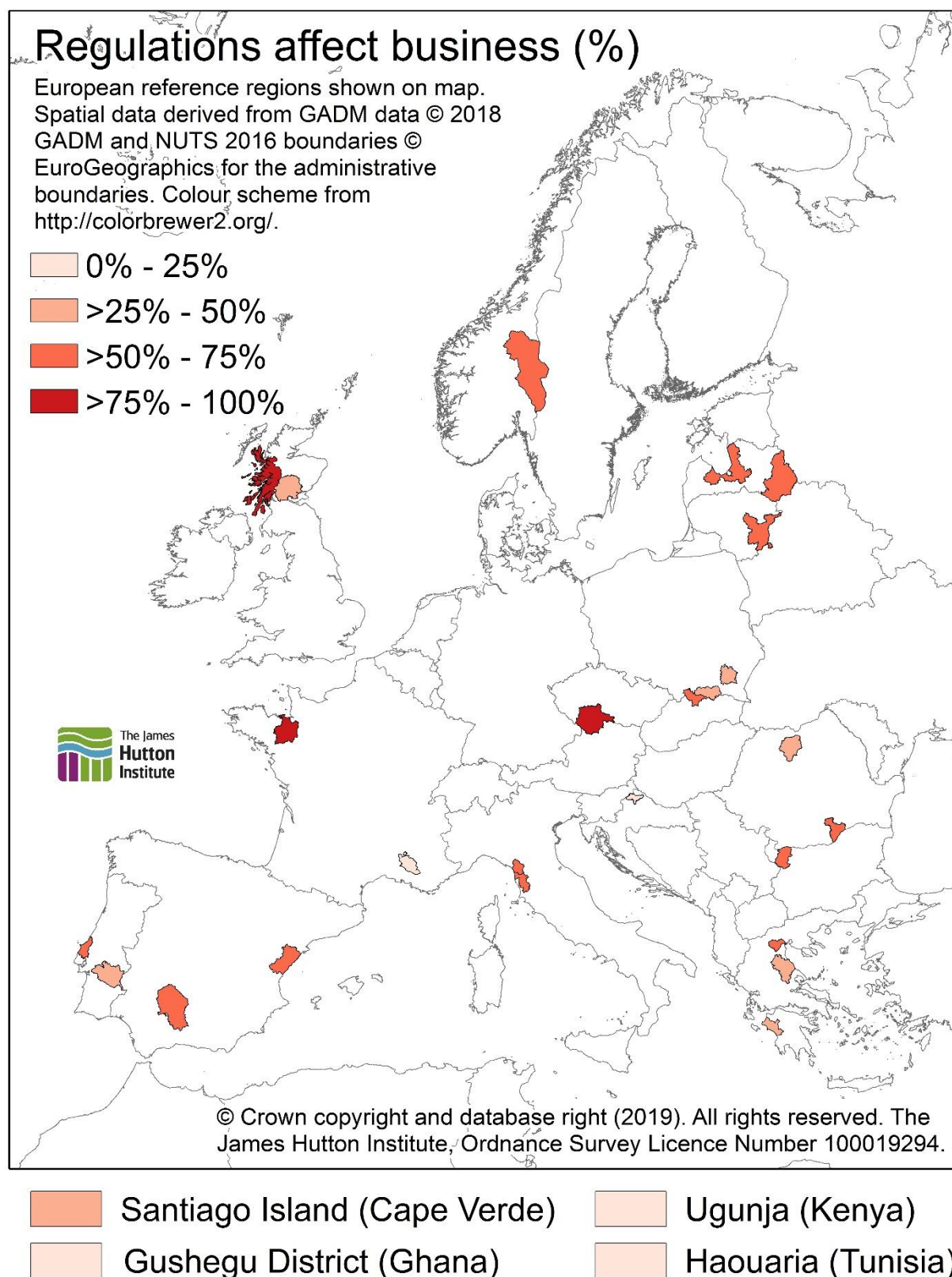


Figure 15: Mapping Regulation Impacts

4.2. Governing for FNS

When do enabling governance mechanisms effectively allow Small Farms and Small Food Businesses to contribute to Food and Nutritional Security? To answer this question, we identify three broad and interrelated governance contexts that are necessary for SFs and SFBs to contribute to FNS. We then classify and analyse the various governance structures identified by our SALSA participants in terms of their relationship to these contexts.

4. The *first* of these governance contexts is the interactions with state, market, and social structures which govern **the ability of SFs and SFBs to operate within a given territory**.
5. The *second* important context are the state, market, and social structures that govern **what and how much SFs and SFBs produce and/or process, and how they produce and/or process it**.
6. The *third* important context is provided by the state, market, and social structures that **govern the ability of SFs and SFBs to participate in market or extra-market exchange**.

For SFs and SFBs to effectively contribute to all four dimensions of Food and Nutritional Security at a regional scale, governance arrangements must be enabling in all these three arenas. In other words, SF/SFBs must be able to operate in a territory, they must be able to produce and process food, and they must be able to get this food to people through market or extra-market channels.

In each of these three contexts, we find governance forms that both enable and marginalise SFs and SFBs, but there are very few examples of regional food systems where *all* types of SFs/SFBs participate in governance arrangements that are enabling in *all* three arenas/contexts. As such, **our analysis suggests that current governance arrangements in our reference regions do not enable small farms in the SALSA sample to effectively contribute to FNS at a regional much less national level**. However, in many reference regions, particularly where subsistence, semi-subsistence, and non-commercial farms are common, small farms can maintain their contribution to household food security through their interaction with governance arrangements that facilitate their continued existence and buffer them against various land-use and income pressures.

In the following section, we explore these findings in more detail and consider the implications of these various forms of governance on the distribution of power between various actors in the food system. We also highlight the diversity of small farms and SFBs, which is important for understanding how current governance arrangements yield mixed results. And, finally, we reflect on whether these various governance arrangements enable small farms to contribute to the four dimensions of FNS.

Context 1: What governs the ability of SFs and SFBs to operate in a given territory?

For Small Farms and Small food Businesses to remain viable requires that governance structures support access to land and productive assets. Even where land is traditionally owned, or squatted, these structures are important for continued access and protection of asset. In a similar vein, for SF/SFBs to survive into the future requires a stable pool of labour and opportunities for new entrants into farming. In most European regions, state subsidies and forms of state social support also guarantee the survival of small farm households, with 73.1% of the SALSA sample having access to these forms of support. But national-level tax regimes vary dramatically and do therefore create both supportive, as well as difficult conditions for small farms/SFBs. In addition, the various programmes that support rural development are important context for the ability of small farms to continue to operate in the region. In some contexts, small farms were embedded in a system of mutual farming practices, governed by social norms of reciprocity, which were important for supporting farming practices. And not least, the various forms of governance that attempt to manipulate, safeguard, or mitigate against the biophysical conditions within a region are significant contextualising forces for SFs and SFBs. These arrangements have become increasingly significant as the imperative of agricultural adaptation to climate change comes into policy focus.

Workshop Participants identified the following arrangements as particularly important for enabling them to continue to operate in their reference region:

1. Rural Development Programmes

- a. CAP Pillar II: In several European reference regions, key programmes initiated under Pillar II were seen as particularly relevant for small farms. These were the small farm restructuring programmes in, for example, Poland and the new entrant schemes, which were widespread across the reference regions (see Box 1). These types of programmes were significant as part of a new CAP approach that makes explicit the links between agricultural production and sustainable rural development (refs). In most examples, SF/SFBs were seen to benefit from these RDPs, although there were concerns raised about the ability of national governments to effectively tailor programmes to regional conditions and to the advantage of SFs. There was also evidence of these programmes being particularly at risk of under-funding by national governments in times of economic austerity or low growth.

Poland nowotarski (RR21) *“some measures of the RDP 2014-2020 as for example “Restructuring of small farms” - in the opinion of farmers there are too many exclusions and it’s very difficult to become the beneficiary of this measure. For other measures of RDP 2014-2020 which are oriented to all farms – small farms have to compete with big farms and, as representatives of small farmers pointed, they have no chance to get the support, unless the national criteria are used (it is easier for small farms to get the support in these measures, in which the regional criteria are used).”*

Greece/ Ileia (RR10) “Measure 6.3 of the Rural Development Program 2014-2020 provides for support for the development of SFs (based on Article 19 of Reg. 1305/2013), conditional on the submission of a business plan. For the implementation of this measure, ‘small farms’ have been defined by the Greek RDP as those having at their initial status a standard output ranging between 5,000 € and 7,999 €. The rationale is the support for the development of SFs which are ‘small’ but not ‘tiny’”

b. Non-Government Organisations: In non-CAP administered African regions, United Nations, World Bank, and other NGO led Rural Development policies were also significant where they supported the development of key infrastructure that small farms rely on, such as irrigation infrastructure or transport links. Often these forms of rural development were initiated by national governments, and sometimes with the support of multi-lateral institutions like the World Bank. These forms of rural development were important for enhancing the bio-physical characteristics of a region in a way that supported small scale agricultural activity, as well as for facilitating access to markets (which will be discussed further in the following sections).

2. State and non-state Subsidies and Financial Support

a. In European reference regions, forms of financial support are important for allowing small farms to remain viable. Small farming households relied on forms of public support through subsidies like the single farm payment to supplement marginal farm incomes, or in the case of subsistence farms, the payments often represented the primary source of household income. But many SFs felt that the bulk of subsidies available under CAP went to larger farms, particularly where minimum land or herd size presented a barrier to accessing certain subsidies. SFs also identified the transaction costs associated with accessing CAP payments as particularly disabling for SFs where lower profit margins made these costs impossible to bear.

The regulations and requirements to access CAP subsidies are very demanding in terms of administrative work and time dedication. This poses a particularly heavy burden on SF, who lack the time and staff to dedicate to this type of tasks and end up needing to pay for the administrative services (RR26, Spain, Castellon, Regional Workshop Report).

Direct payments support the existence of small farms. Small farmers cannot exist without the UE payment or government transfers. (RR19, Poland, Rzeszowski Regional Workshop Report)

b. At the national level, small farms and SFBs may be particularly reliant on other forms of state and non-state financial support. State welfare, social insurance, and subsidized food distribution were all cited as important to the survival of small farm households. These forms of social support were particularly vulnerable to changing

political priorities and national economic conditions (austerity). This raises the question of potential negative feedback loops for FNS outcomes in contexts where economic crisis leads to heightened levels of food insecurity on small farms and in regions where small farms predominate.

- c. Civil society and non-governmental actors are also increasingly significant for meeting the livelihood needs to SF/SFBs, and this was a common thread across both European and African reference regions. Food banks are an example of this sort of support in several European reference regions. In many of the African reference regions, small farms are entirely reliant on NGO led initiatives to support farmers in adapting to environmental change. This support can take the form of financial support, research led strategies (e.g. drought resistant crops), and access to data (e.g. weather forecasting).

Charity activity which is also correlated with food supply to the poorest people in region, there are a lot of organizations involved in it, for instance Catholic church, Food Bank, Polish Red Cross. (RR19, Poland, Rzeszowski, Regional Workshop Report)

3. Mutual Farming Practices

- a. Small Farms in all reference regions relied to some extent on the support of friends, family, and neighbours. In our sample, 54% of SF/SFBs indicated that they relied on this type of support, although this reliance was highly variable across the reference regions (see Figure 3). This support took various forms, from on-farm labour during busy harvest periods, sharing of practical skills and knowledge, to small loans or gifts. The presence of a social support network was clearly an important element of small farm strategies, although further research is required to understand how other forms of agri-food governance support/undermine these forms of social support. We also do not know how SF/SFBs compare to other, larger farms in terms of their reliance on social support networks. It may well be the case that the reliance on social support is a necessity in the context of poor support for SFs through other, more formalized financial support mechanisms.

4. Climate Adaptation Frameworks

While every SALSA reference region is included within a national adaptation framework, there was little evidence in the primary data of such frameworks having developed policies that were implemented at the local level. Yet, we identified adaptation governance as an arrangement that was very important to small farms and small farm businesses. In the African case studies, the lack of policy integration could be a result of the devolved systems of government in those regions. In Kenya and Ghana, public/private partnerships were in place with international and local NGOs to support small farms through seed and fertilizer subsidies. Data evidenced research led NGO initiatives in the areas of irrigation and drought/pest resistant crops were scaled to the small producer level. With the exception of one reference region in Italy (Pisa) and one reference region in Greece (Imathia), where participants showed high levels of concern regarding

environmental change, there was little evidence of an awareness of, or concern for, the future impacts environmental change will have on small farms in Europe.

Box 1: Young Crofters in Scotland (RR 30)

Crofting is a traditional form of land tenure in Scotland which facilitates access to small scale agricultural holdings. Crofting is also seen as integral to environmentally sustainable land management in the Scottish highlands and islands. The Scottish Crofting Federation (SCF) is a non-governmental organisation which lobbies to maintain the unique status and facilitate the long term viability of crofts as a “unique social system unified around the small-scale production of food”. Part of this emphasis on long term viability has led to the formation of a dedicated young crofters branch of the SCF. The focus of this new emphasis on young crofters has been to create mentoring opportunities for new entrants to crofting, to work with policy makers to simplify tenancy arrangements, and to continue to lobby the National government to maintain incentives and payments that can attract new entrants. This, combined with the funding available under the New Entrants scheme of the CAP Pillar II, RDP is creating new pathways into small scale farming for young people.

Box 2: Rainfall Anomalies in Ghana (RR 7)

One report from the Gushegu District in Ghana states that ‘there has been irregular rainfall distribution although sometimes there is no difference in the total annual amounts. This brings about long dry spells, drought and floods’ (RR7 Regional Workshop Report, p. 6). This gives insight into a common misconception about rainfall anomalies: it is not always the quantity of annual rainfall that changes, but the intensity and distribution of rainfall across space and time. Subsistence farms, such as those that characterise the Gushegu District, are particularly dependant on regular patterns of rainfall. In the Gushegu District there has been a notable change in rainfall patterns, and an increase in the occurrence of drought and flood over the last 10 years. Any change to seasonal cycles of rainfall can severely undermine planting and harvesting practices. While there are smallscale irrigation projects underway to alleviate water shortages in the dry season, small farms remain vulnerable to both drought and flood.

Context 2: What governs production and processing for SFs and SFBs?

Here we explore the significance of various private and public standards around food processing, animal welfare, and the use of inputs. Additionally, there are similar standards that emerge through participation in various food certification and verification schemes, which operate across global to national scales. Another important factor that shapes what and how small farms produce is access to farm advisory and extension services. The data also reveals the important function of cooperative arrangements, which are significant in this context for the way they set their own standards for certain farm products. And finally, there are the various governance

arrangements that shape global competition and input prices, which for some farms, can be a significant factor in determining what they produce.

1. Private Standards/Food Regulations
 - a. Food safety regulations were one of the most commonly cited type of governance that impacted Small Farms in the sample. Small Farms and Small Food Businesses were often under-equipped, both in terms of knowledge and infrastructure to comply with food safety and hygiene standards. The cost of achieving compliance were described as prohibitively high for many small producers. The difficulty in compliance was particularly pronounced across European livestock sectors, where EU-level animal welfare, hygiene, and food safety regulations intersected to create burdensome administrative and documentary loads for small farms. As a result, many small farms chose to not alter their production techniques and thereby remain excluded from key markets. These farms were highly reliant on informal and farm gate sales, and at low volumes. In some regions, the expansion and tightening of food safety and hygiene regulations in the wake of several high-profile food safety failures had caused producers to change their production focus or limited their potential markets. There were also concerns that these standards had negatively impacted the small-scale producers that small farms and small food businesses so rely on (see box 3). In many regions, there was distinct lack of small processors to take in and process small farm products. As a result, SFs often engage in forms of on-farm processing, much of which does not comply with food safety and animal welfare regulations. One potential innovation that SFs suggested was for RDPs to focus specifically on funding 'processing incubators', to support the creation of small-scale processing in underserved areas.

Box 3: Processing for SFs in Scotland (RR30)

Livestock farming is an integral part of crofting life on the west coast of Scotland (RR30). While larger businesses send stock to the south and east to be fattened and slaughtered, many small-scale crofters prefer to finish animals themselves and sell directly to their community, thus capitalising on short supply chains, high value products, heritage breeds and traceability. However, the shortage of abattoirs in this sparsely populated area incurs animal welfare issues and high costs to the producer, resulting in a business that is largely unsustainable without external income. The situation for small-holders in the central belt (RR29) is similar. Although abattoirs are present, very few accept small numbers of animals on an ad-hoc bases. The situation is exacerbated as abattoirs have closed, citing falling profitability due to; competition from large, high volume competitors, excessive regulation ("I used to run a small slaughterhouse and it was red tape that finished us. Some days we had 3 slaughter men, 2 vets, 1 meat inspector, 1 MLC* grader and his boss who all had to be paid for"), the increasing cost of waste disposal and a shortage of trained staff. In response to these closures there are a number of groups and individuals e.g. Crofting commission and Smallholding Scotland, who are campaigning vigorously for increased funding to initiate and protect small remote or mobile abattoirs. *MLC: Meat and livestock commission

- b. Small food businesses also highlighted the challenges with complying with food hygiene standards, most of which were tailored to large commercial processing and production operations. Many also identified a lack of support from food safety authorities in providing clear guidance on the hygiene requirements for these smaller size units.

Although most participants acknowledged the important of ensuring food was produced to a high standard, and was kept safe along the supply chain, most maintained that these regulations could better consider the different production techniques and capacity of small producers. In a small number of cases, particularly where tourist markets were in their infancy, workshop participants suggested that the implementation of more stringent and accountable food safety regulations would help to facilitate trust and consumer confidence.

Controlling bodies (veterinary, food processing) are seen as the strongest actors affecting small farms processing activities and possibilities of direct marketing. Part of apple producers are also processing fruits and again all hygienic requirements, controls, red type makes their production very difficult. The EU rules affected animal production in small farms – requirements of conditions for animals rearing could not be fulfilled by small farmers with limited resources and lack of development perspectives. (RR20, Poland, Nowosqdecki, Regional Workshop Report)

- c. Private Standards

Workshop participants showed a low level of awareness of private supply chain standards. One reason for this is because very few of the small producers taking part in the workshops held supply contracts for large food retailers. This is, paradoxically, likely the result of the large quotas that these large supply chain actors place on their producers. Thus, the standards effectively exclude most small farms from these supply chains.

The volume and stability of supply that these operators require are also difficult to meet for them. This makes SF and SFB products less accessible to consumers, who prefer to buy food in supermarkets due to their wider opening hours that fit consumers' time and schedule restrictions better. Also, supermarkets do more advertising and can offer lower prices. (RR26, Spain, Castellon, Regional Workshop Report)

2. Food Provenance Certification

Small farms have generally benefitted from two related trends: the first toward forms of differentiation of agricultural products, particularly around the regional provenance schemes under EU Regulation No 1151/2012, such as protected designation of origin (PDO), protected geographical indication (PGI), and traditional specialties guaranteed (TSG).

Certification of regional fruits (i.e. Rocha Pear and Alcobaça Apple) and the creation of production manuals to support and accompany the production of these crops (RR23, Portugal, Oeste, Regional Workshop Report)

Small farms and SFBs also highlighted the way growing concerns about the environmental impact of agricultural activity, and the subsequent support for agri-environmental measures under the CAP, has created heightened levels of public awareness and interest in the way food is produced. The resultant expansion of environmentally-influenced certification schemes (particularly organic), has led to mixed results for SF and SFBs. In some regions, SFs encounter challenges in obtaining certifications because small farms lack the capacity to undertake the requisite accounting and eligibility documentation, or to meet accompanying production standards. Where organic certification has been available to small farms, often through cooperative associations, SFs engage in all stages of production, processing, and packaging. This is primarily to retain the provenance of the product, but it also allows SFs to capture the added value associated with organic products. But in other cases, new forms of certification, often backed by EU level schemes, allowed products with inferior credentials to be undistinguishable from high quality organic small farm products, thereby creating a competitive disadvantage for SFs.

Organic farmers can capture a larger share of the added value compared to their conventional counterparts. Similarly, organic orange producers export most of their produce to the Netherlands and Germany through their co-ops. (RR 10, Greece, Ilea, Regional Workshop Report)

Some EU policies were viewed with scepticism as they insufficiently differentiate between products that are similar only superficially, and in most cases this puts high quality organic products at a disadvantage. (RR14, Latvia, Latgale, Regional Workshop Report)

3. Cooperative Production

Generally speaking, participation in cooperative production facilitates better access to markets. While better access to markets and high levels of participation in cooperative production strengthens the position for collective bargaining, it also requires the collective to respond to a greater number of consumer needs, which in turn influences *the types and quantity of production*. This is evidenced in some of the southern European case studies (e.g. RR 26 Castellon, Spain) where cooperative olive production has responded to new tourist markets, by expanding the range of olive products and making these available through cooperative-led retail outlets.

Cooperative production is also important where produce is mainly sold for the fresh market, and in specialised producers of goods certified as a Protected Designation of Origin (PDO). The region of Imathia, in Greece (RR 8) for example, is one of two main peach producing regions, Greece's main agricultural export. The product is certified as a PDO, Reports from Imathia state that 'almost



40% of the total peach production in Imathia is sold in the fresh market'. Yet, because of the volatility of the fresh market selling excess produce to regional cooperatives is a vital safety net, without which participation in the fresh markets would be less viable. Imathia currently sells 60% of produce to cooperatives or private companies for canning.

1. Farm Advisory/Extension

Although farm advisers were often participants in the regional workshops, where advisory services were mentioned in European workshops, the overriding statement was that they were maladapted to small farm needs. This was the result of advisers being spread too thin (both in their geographical spread and in terms of the number of farms they served), because they often lacked an understanding of the particular needs of small farms, and/or because they were seen to promote private interests. The most useful form of engagement of SFs with advisory services came through the publications and online information services. In several of the African reference regions, participants highlighted that extension and advisory services had expanded in recent years and were part of a more coordinated multilateral effort to provide direct production advice and technical support to small farmers. This support was instrumental in the development of new high value varieties such as the orange flesh sweet potato in Ugunja.

In theory, small farmers should benefit of advisory services provided by the state, but its implementation is lacking profoundly . . . this is detrimental for small farmers as they don't benefit of information regarding potential support available for them, farming conditions to comply with, placing them in a disadvantaged position in comparison with big farms. (RR25, Romania, Giurgiu Regional Workshop Report)

Context 3: What governs the ability of SFs and SFBs to engage in market or extra market exchange?

As highlighted previously, there are also a whole series of production related regulations that mean SF products are effectively excluded from mainstream food supply chains, many of which are dominated by large corporate and private interests. Thus, SFs rely on factors which create and sustain demand for their products, as well as mediating actors who can support SFs in meeting this demand. For example, more general social norms around food a nutrition that created demand for these products. Relatedly, public policies could be important for actively supporting small producers through public procurement mechanisms. The ability of SFs and SFBs to participate in market exchange was also reliant on the presence and governance of any/various forms of alternative food networks (as an alternative to conventional food networks that are dominated by large private firms and characterised by vertical integration). Also significant for shaping market exchanges was the governing role of cooperatives in facilitating access to markets and influencing prices.

a. Public Nutritional Programmes

In many European reference regions, participants identified various publicly supported programmes that sought to spread awareness about the value of locally produced food, both in terms of its nutritional content, as well as its potential impact on the environment. These programmes took the form of school nutritional campaigns, which promoted plant-based diets, to local food festivals, where the consumption of local food was valorised. These events were at times linked to local authority efforts to boost regional tourism, but also often part of a broader public health agenda, which recognised a value in re-establishing links between local food and rural communities.

The most tangible way that these sorts of publicly supported local food valorisation impacted SFs and SFBs was when they were accompanied by public procurement of SF/SFB products. Workshop participants often mentioned these forms of procurement as potential opportunities for SFs, but there were few examples of these policies in action or where they supported a diversity of SFs. In some cases, participants expressed concern that public procurement requirements could be restrictive in terms of the ways in which small farms had to register as suppliers to be able to directly sell to public bodies (see Box 5). Ultimately, participants felt that public procurement was an area of great potential, both in terms of providing a reliable market for SF products, but also for signalling public support for small producers, and raising awareness of the value of SF products among the wider population.

Special mention was made to public procurement regulations. Food providers are required to be registered as “wholesalers” which, in occasions, results in the provision from large businesses located out of the region. Access of hospitals, school canteens etc. to proximity food provided by local SF and SFB is thus hindered. (RR26, Spain, Castellon, Regional Workshop Report)

b. Cooperatives

Producer Cooperatives are seen by participants as crucial for facilitating access to markets and securing fair prices for SF products. Yet there are some important variations in the ways that cooperative interact with small farms. These variations are both geographical, as well as across different agricultural sectors. The geographical variability of SF participation in cooperatives is highlighted in Figure 13. There are important socio-historical contexts for this variation, one of which is rooted in post-socialist experiences of forced collectivisation, and the resultant fears among small farmers of lost profitability and autonomy through cooperative association. In other instances, national-level policies have served to strengthen cooperatives across key sectors, while other forms of agricultural production may not enjoy such support. Dairy farmers are one examples of a sector where cooperatives seem to be particularly active and well-established.

The effective operation of these co-ops is crucial for SFs, not least because they mitigate the power imbalance within the food system, which also translates into satisfactory producer prices and secured farm incomes. (RR 12 Italy, Pisa Regional Workshop Report)

Where Small Farmers do have access to cooperative membership, participants in nearly all regions found them to enable market access in a way that was impossible through other avenues. Moreover, small farmers saw these cooperative as posing a valuable check on the monopolising power of large private firms.

Furthermore, the existence of large cooperative processing enterprises (in wine and canned peach) due to the prevailed strong collaborative culture has reduced the oligopsony power of the private wholesalers (RR8, Greece, Imathia, Regional Workshop Report)

Yet, it is important to note that traditional producer cooperatives are increasingly seen as one potential outlet for SF products, and in some regions, particularly where there was an established or emerging Alternative Food Network, SFs were adopting a diversified strategy for accessing markets.

Box 5 Food Safety and Procurement in Latvia

In the Latgale region of Eastern Latvia, Potatoes are a key product for small farms. Until about 10 years ago, local farmers supplied local schools and old folks care homes. The supply of potatoes and other vegetables was enmeshed in local social life. For example, farmers supplied potatoes to the local schools (particularly where their children attended). Parish administrations were more willing and able (in terms of human resources) to deal with individual local farmers. Presently, the procurement procedure aims to simplify the process and purchase food from fewer providers as procuring food from individual local farmers is more resources (time, money, human) demanding. However, small farmers cannot provide the necessary quantities of different vegetables on a regular basis, and cooperation between farmers has proved to be unsuccessful. Thus, while existing procurement procedures are more convenient, they are challenging for small farmers and force them to compete with Polish and Lithuanian farmers who can offer lower prices. Ultimately, this has led to farmers growing fewer potatoes, and even though there is still a regional surplus, and local consumers eating more imported potatoes. This disconnecting of local production and consumption has a range of impacts on the local economy and on the social relations that surround potato production.

c. Alternative Food Networks

Across many of the European Regional Workshops, participants expressed interest and at times enthusiasm for innovations in food provisioning through Alternative Food Networks (AFN). There was a recurring sentiment that enthusiasm for organic, local, or niche products was part in parcel

of a broader shift in social norms that encouraged consumers to start thinking more carefully about where their food comes from, as well as the social, environmental, and economic conditions that attend its production. This shift in social norms was identified as an opportunity for small farms and small food businesses.

AFNs took different shape across the reference regions, and in some instances, could hardly be considered alternative since they represented the continuation of historically-embedded modes of trading and food provisioning. In other regions, AFNs were highlight informal, consisting primarily of exchange of food between friends, co-workers, farm gate sales, or even bartering. These types of alternative market channels are potentially important, ‘unseen’ safety nets for small farmers and local communities in time of food shortages or price shocks.

But in many regions, there was evidence of innovations that support the expansion or entrenchment of AFNs. Participants highlighted the important role of online and social media networks for facilitating new connections between producers and consumers. There were also examples of how these new connections led to new forms of cooperative among mixed groups of consumers and producers (see box 6). Despite the notable examples of success among these new food networks, these newly emerging, ‘young’ markets were seen as particularly vulnerable to loss of human capacity, changes in consumer habits, or lack of critical mass.

Box 6: Online Markets in Norway

The most important innovation affecting small farms and small food businesses in the recent past has been the food concept of “Local Food”. This concept increasingly incorporates the “story” behind the food, from the area in which it is produced, the name of the farm and the farmer, and even sometimes down to the cow or sheep. Local food has become a niche where small-scale farmers and food processors can sell their products at a relatively high price. One example is the website “lokalmat.no”. The purpose of this website is to promote locally produced food on a national level by having the producers register on the website and supplying their own information about their products. The site then serves as free marketing for the producers as well as an easy way for consumers to gather information about locally produced food. For some retailers registering on the website was a prerequisite for allowing the sale of the producer’s products in their stores. Producing, marketing and selling products are all time-consuming endeavours and any measures to alleviate the farmer’s workload is important for the farmer’s success. In essence, the website and food network allows the farmers to concentrate on producing products instead of spending time on marketing and sales. This could potentially increase the amount of products the farmer is able to produce as well as making the products more accessible through mainstream sales channels.

In other European regions, historically continuous markets were identified as important outlets for SF and SFB products, and were often less vulnerable to the vagaries of consumer demand than newer food networks. These markets comprised a key node in the selling strategies of small farms.

Very rarely did small farms rely solely on traditional, alternative, or 'open air' markets, but rather saw them as part of a strategy that mitigated instability in prices. In this sense, well-established alternative food outlets are not so much alternative, as part of a wider food network through which SFs operated strategically.

When peach prices are not favourable, farmers opt for disposing their products through cooperatives, however, when prices are satisfactory, they sell their products to traders who pay well, in cash. (RR8, Greece, Imathia, Regional Workshop Report)

In several African reference regions, small farms who produced surplus relied almost solely on open-air, traditional markets to dispose of their products. These markets were governed by complex, and often highly unequal relationships between small producers and market middlemen who consistently sought to drive down prices for small farm products. In these instances, there was greater enthusiasm for developing new routes to market through, for example, tourist establishments or restaurants. For regions where historical market relations were inflected with power dynamics that marginalised the smallest producers, an alternative food network was conceived of very differently, and often through a desire to formalise market exchange through stronger cooperative associations and regulations. There was specific mention, though, that the impacts of environmental change on farming practices in these regions would further exacerbate the power imbalances between small farmers and middlemen.

5. Discussion

We have suggested that governance forms enable FNS where they can deliver on multiple dimensions of FNS for the greatest number of people. Yet, we also suggest that this utilitarian approach needs to account for factors, such as power imbalances, that prevent SF and SFB benefiting from enabling governance forms, where and because these populations represent a marginalised (and lesser number of) people. In the following discussion, we outline 2 areas of interest that emerged from comparative analysis of the data, as they relate to the stability of the food system and FNS. First, we draw further conclusions regarding what forms of governance are now, or could potentially be, *most enabling* to SF and SFB. Secondly, we point to adaptation to environmental change as a critical issue for SF, and the lack of scaled down adaptive strategies as the *most significant gap in governance for SF and SFB*.

5.1. Enabling Governance Forms: A comparison of quantitative and qualitative results

There are 9 governance types that are identified in the data as enabling to small farms and small food businesses (see Results section and Table 4 below.). 5 of the 9 identified governance forms are represented in the interview survey data and were analysed for levels of participation (see Table 3.)

State subsidies	73.1%
Farm advisory services	70.2%
Mutual Farming practices	54%
Food Quality/Safety Regulations	49.4%
Cooperative Arrangements and Associations	46.2%

Table 3: Ranked Participation in Governance Arrangements

Governance Arrangements identified by SFs/SFBs	Examples	Frequency in Sample	Enabling Yes, when . . .	Barriers
1. Food Quality/Safety Regulations	<i>Private quality standards, public safety regs, animal welfare regs</i>	49.4%	Y= In areas where tourist markets are significant	High investment req
2. Cooperative Arrangements and Associations	<i>Producer cooperatives, farmers associations</i>	46.2%	Y= When organised around a key product, holding national monopoly	Low Cooperative Participation
3. Climate Adaptation Governance	<i>National adaptation frameworks</i>	N/A	Y= Provides new sources of funding	Maladapted to small farm conditions
4. 'Alternative' or 'Traditional' Agri-Food Networks	<i>Local Food Movements/Valorisation, Food Assembling, Virtual Markets</i>	N/A	Y= When there is sufficient consumer demand. When there is a critical mass	Economies of scale,
5. State Subsidies and Financial Support	<i>Direct Payments, State Insurance Programmes, Food Aid</i>	73.1%	Y=for all farm types, but esp. subsistence farms	Transaction costs for small farms
6. Rural Development and	<i>CAP Pillar 2 (young farmers, small farms)</i>	N/A	Y=Almost universally seen as enabling	May be maladapted to regional conditions

Agricultural Policy	scheme), International Aid			
7. Farm Advisory and Extension	Climate Adaptation Support	70.2%	Y=focus on production enhancements	Accessibility for small farms
8. Mutual Farming and Food Sharing	Labour sharing, food swap	54%	Y=More significant where subsidy uptake is lower, and cooperative participation is lower	
9. Public Policies and Programmes	Public Health Progs, Public Procurement agreements		Y	Public will and finances, SF capacity

Table 4: Governance arrangements at a glance

There are, however, several important areas in which the quantitative and qualitative results differ. We suggest these occur precisely where **factors such as power imbalances prevent peoples participating in and benefiting from enabling governance forms**, and we highlight these disparities as research findings to be taken into account in future studies. First, **quantitative data shows that subsidies and farm advisory services have the highest level of participation across regions, and cooperatives have the lowest**. Yet, **qualitative data shows that while cooperative participation is low, this governance form was evidenced by research participants as the most enabling form of governance arrangement for small farms**.

We suggest that this conflict in the data is explained by two key findings. First, maps based on the quantitative data (see figures 12-15) suggest that subsidies may be the key governance arrangement around which participation in other arrangements is influenced. This is evidenced in two trends:

1. Where participation in subsidy schemes is higher: i) participation in cooperatives is lower; ii) dependance on support from neighbours is lower; and iii) the influence of regulations is higher.

This is broadly true, except in the Spanish case studies (RR 26 and 27) which show high levels of both subsidy uptake and cooperative participation.

2. Where participation in subsidies is lower: i) participation in cooperatives is higher; ii) dependance on support from neighbours is higher; iii) and the influence of regulations is lower.

This is broadly true, except in the case of the Norwegian case study (RR18) which shows high levels of both subsidy uptake and support from neighbours.

Within these trends, we identify complexities in the low levels of cooperative participation as the primary explanans of the disparity between the quantitative and qualitative data. Two main complexities were evident: **a) qualitative data shows that while cooperatives could offer critical support for small farms, socio-economic factors restrict the establishment of, and access to, cooperatives in some regions; and, b) qualitative data suggests there may be a pattern of resistance to cooperative forms of governance in**

regions that have lived under totalitarian regimes. In regard to point a), lack of access was mainly an issue in the African case studies (RR2, RR7, RR13).

In an example from RR2 (Santiago Island, Cape Verde):

FG participants confirmed that there are not producer cooperatives and they emerge greater importance for SFs from RR to create an important cooperative to organize, coordinate, support, collect, protect and to market the banana production from local RR SFs. (RR2, Cap Verde, Santiago Island, Food System Regional Report)

Reports from Ghana suggest that small farms would benefit across some of the dimensions of production that cooperatives have proven to support:

...the small-scale nature of farms creates productivity related problems and unfavorable marketing prospects which undermine its potential. For example, assembling produce from small farmers dotted across large geographical areas with bad road networks is a challenge. The scale of production is a reflection of the financial capacity of farmers. Thus their access to certain facilities like farm equipment is restricted or denied due to lack of funds. (RR7, Ghana, Gushegu, Food System Regional Report)

The Kenyan report (RR13) points to the importance of cooperatives in protecting small producers from exploitation:

It is not easy for farmers to form and strengthening of farmer cooperative due to low farmer capacity. The sub county is producing significant amount of produce but farmers are being exploited by the business brokers because they don't have a cooperative to support them access regular support from the department of cooperatives and development partners.' (RR13, Kenya, Ugunja, Regional Workshop Report)

In regard to point b), maps based on the quantitative data (see figures 12-15) showed that low levels of participation in cooperatives in the European context exist in the Portuguese (RR22), Latvian (RR15), and Polish (RR19, RR20, RR21) case studies. Qualitative data evidenced both resistance to and lack of access to cooperatives based on socio-political-historical contexts. Data from RR23 (Alentejo Central, Portugal), for example, evidenced a resistance to involvement in the post-revolution cooperatives formed under the Portuguese Agrarian Reform: ¹

Small farms did not participate in the agrarian reform processes and stayed out of the social and economic convulsions during this period. Nonetheless, they have in many cases profited from the services provided by the consumption cooperatives, namely on items for household consumption and farm input products.' (RR23, Portugal, Oeste, Food System Regional Report)

¹ We refer to the 1974 revolution against the fascist regime *Estado Novo*.

Examples from Poland show that state cooperatives collapsed after the fall of communism following the 1989 election, and that there is resistance to participation in newly established cooperatives that are associated with a loss of independence:

After 1989 the state system (including state “cooperatives”) of purchasing of agricultural production – raw materials nearly ceased to exist. The void was gradually filled with private entrepreneurs, dairy cooperatives or slaughterhouses. The way of products and raw materials from farms to consumers in general became longer, resulting in higher prices of food for consumers and lower share of “gate prices” in the final price of food.’ (RR19, Poland, Rzeszowski, Food System Regional Report)

Farmers do not want associate or cooperate in any way. They very highly value their independence even if it means problems with marketing or higher costs of input. (RR20, Poland, Nowosdecki, Food System Regional Report)

mostly big and medium farms are involved in the cooperatives. Small farmers are much less often cooperative members; none of the interviewed small grain producers was a cooperative member. (RR15, Latvia, Pieriga, Food System Regional Report)

Latvian examples showed possible lack of access to cooperatives, but also that those small farms operating in the agro-industrial system could benefit from collective bargaining:

...several dairy cooperatives (Piena Ceļš, Pienene, Braslava), big processors (Tukuma piens, Limbažu piens, Rīgas piena kombināts, Jaunpils pienotava), retailers and middlemen who are linked to export/import markets characterise the sector’s agro-industrial subsystem in the region...Very few of the interviewed small dairy farms operated in the agro-industrial system; those who did were selling milk to big regional processors. According to some stakeholders, direct delivery to processors can even be disadvantageous for small farmers because they tend to receive a lower price. (RR15 Latvia, Pieriga, Food System Regional Report)

We suggest these findings further explain low levels of participation in cooperatives, but in doing so also highlight the importance of cooperative forms of governance for enabling SF and SFB to contribute to FNS. In some regions with high numbers of subsistence farmers, continued low levels of participation in cooperatives could further destabilise the food system in that region (e.g. Ujunga, Kenya). This is particularly so under climate change scenarios. Lastly, while we emphasise the need for further investigation into these findings, the data analysed here makes a strong case for supporting cooperative capacity and participation, in regions where this is low.

5.2. Environmental Change: a gap in governance for small farms

Alongside subsidies and cooperatives, **climate adaptation governance stands out as a third key governance arrangement that qualitative data shows is enabling, or is needed to enable, small farms.** Small farms are particularly vulnerable to the effects of climate change. This is especially so in areas already experiencing rainfall and temperature anomalies, and extreme weather events (Greece RR8, RR9, RR10; Italy RR11, RR12.) It is even more so in low latitude regions (Cape Verde RR2, Ghana RR7 and Kenya RR13) where ecological and human vulnerability to the effects of climate change are highest. A recent report by the Food and Agricultural Organization of the United Nations (FAO) contextualises this challenge within the international climate change and food security context, stating that under future environmental change scenarios '[p]roducing more [food] with less [resources], while preserving natural resources and enhancing the livelihoods of small-scale family farmers, will be a key challenge for the future' (FAO, 2018. Pp xii-xiii)

The qualitative data in our study showed that, while adaptation governance frameworks exist at the national scale in both European and African reference regions, climate adaptation governance is poorly integrated into the governance frameworks, policies, and practices that influence and concern small farms, at any scale of governance. In some cases, this was tied to a devolved system of government. Evidence did, however, show that in regions experiencing extreme weather small producers are highly concerned about the impacts of climate change on current and future planting and harvesting cycles, but have no local support from state-level adaptation governance frameworks. In the European context, regions where climate change was raised as a concern were limited to Italy and Greece. In the African context, however, environmental change was a key concern of small farmers, across reference regions. These concerns centred around the effect of extreme weather events on access to water (e.g. drought and flood events). An example from Kenya shows that with rainfall anomalies interrupting planting and harvesting practices, farming practices have become increasingly spontaneous, in response to rainfall:

the farmers have diversified the crops to adapt to the extremes associated with weather and climate change. Local and indigenous varieties like vegetables and cereals like millet and sorghum are being adopted. Also, the farmers use local weather predication and monitoring methods like looking at the behaviours of birds and ants and reaction of trees through flowering and emergence of green leave, which indicates expected rainfall. (RR13, Kenya, Ugunja, Regional Workshop Report)

As further evidence from Kenya shows, this adaptive strategy is not reliable, and places further preasure on an already vulnerable and unstable food system. Subsistence farmers, which make up a large proportion of farms in the region are particularly at risk:

The farming system in Ugunja majorly involves subsistence farming, which is primarily mixed rain fed crop-livestock farming systems; small farm sizes (averaging less than 1 ha) and low agricultural potential. This is compounded by the low and erratic rainfall, high levels of poverty, massive environmental degradation, including declining tree cover, extensive soil erosion and declining soil fertility, inconsistent provision of farm inputs, markets, agro-services, and poor supply systems making farmers vulnerable to exploitation by the middlemen.

there has been irregular rainfall distribution although sometimes there is no difference in the total annual amounts. This brings about long dry spells, drought and floods. (RR13, Kenya, Uaunia. Reaional Workshop Report)

And, a report from Ghana highlights the impact this can have on harvests:

Farm lands have lost and continue to lose fertility hence the need for application of fertilizers without which yields are very badly affected. In the event of poor distribution of rainfall, almost nothing is harvested. (RR7 Ghana, Gushegu, Regional Workshop Report)

In the African context, public/private partnerships have enlisted non-government and other civil society organisations in an attempt to fill the policy gap left by state-based adaptation frameworks. In the European context policy gaps are also evident, and urgently need to be addressed. An example from the case study in Pisa, Italy, (RR12) reports three climate change related 'shocks' impacting the area:

The uncertainties brought by climate change affect the quantity, the quality, the variety and the regularity of local agricultural productions. It makes crop planning more difficult for farmers because of rising costs and market uncertainties. The need to contrast new pests implies new forms of pollution in the rural areas.'

The effects of climate change on agriculture such as the introduction of new pests and, therefore, the need to increase further inputs such as pesticides, and in some case the lack of solutions to contrast those pests (RR12, Italy, Pisa, Regional Workshop Report)

The increase of uncertainties on production and production costs related to climate change and the investments needed to adapt (especially on the fruit sector);' from Italy, Pisa RR report (p. 8)

Reports from the Imathia region in Greece also show concern for the effects of extreme weather and the need for climate change resilient crops:



...adverse weather phenomena have already caused serious damages to fruit production in the region. These climate-related changes highlight the need for the introduction of new protection systems, as well as of new tree varieties. However, due to the lack of research as a consequence of the economic crisis, new varieties are imported without any assurance that they are able to be acclimated in the local environmental conditions. (RR8, Grece, Imathia, Regional Workshop Report)

Importantly, **while climate adaptation governance is identified in this analysis as 1 of the 9 governance forms that are enabling for SF and FNS, there is no evidence in the primary data of current examples of locally scaled adaptation governance in any of the reference regions.** Moreover, while research participants showed high levels of concern regarding environmental change in areas more effected by extreme weather events, there was no mention of concern for the future impacts of climate change expressed by research participants in areas that are less impacted by extreme weather. **In response to these findings, we make two policy recommendations: first, that adaptation governance is prioritised as a matter of urgency for the sustainability of small farms within the food system; secondly, that lessons are drawn from those regions experiencing environmental change to inform the development of adaptive strategies elsewhere.**

6. Conclusions

There are a number of governance arrangements that impact if and how SFs and SFBs to contribute to Food and Nutritional Security. These arrangements vary depending on the type of farm as well as the scale at which food and nutritional security is explored. This report has explored the most significant of these forms in detail, and revealed the great variability in how SFs and SFBs interact with governance structures.

The SFs and SFBs that were sampled for the SALSA project identified a whole array of interactions with insitutional, regulatory, market, and social structures that impact upon their farms and businesses. These structures provide the important contexts that determine whether small farms can a.) continue to operate in a territory, b.) if they can produce the right kind of food and in sufficient quantities, and c.) if this food can make its way to consumers through market or extra-market channels. For SFs and SFBs to effectively contribute to FNS at the scale of the regional food system, there must be enabling conditions in all these three contexts. Yet, there are also some particular vulnerabilities within some regions and among certain types of farms which demand our attention.

Fundamentally, SFs must be able to continue farming if they are to at least maintain their current contribution to household Food and Nutritional security. Thus for subsistence or semi-subsistence farmers, the various governance arrangements that **support SF incomes and land access are the most crucial for FNS.** Put plainly, many subsistence farmers would go hungry if not for the current levels of state and non-state financial support. The loss of these farms would have immediate negative impacts on FNS at the regional scale.

Although commerical, export-oriented, and some non-commercial (or hobby) SFs and SFBs also rely on these forms of support, they **currently exist in a state of 'potential'** in terms of their contribution to regional FNS. There is potential because there is capacity and will on the part of many of these small

producers to be net contributors to the regional food system. However at present, **this contribution is limited by factors that inhibit production, processing, and distribution, and/or by limited market reach.** These challenges are at time, the result of governance mechanisms that are maladapted to the needs of SFs and SFBs, and which fail to support the needs of SFs and SFBs across all three of these contexts.

At present, Small Farms and Small Food Businesses rarely see themselves as central players in regional food systems. Instead, many of these small farms believe their viability and the future of small farms is in question. If this is the case, it raises very serious questions about what the loss of small farms and small food businesses would mean for regional Food and Nutritional Security.



7. Appendices

7.1. Governance Questions from SALSA Farm Survey

Question	Yes (%)	No / Yes (n)	Not applicable / blank (n)
Q39 - Have access to subsidies or public financial support	73.1	230 / 626	8
Q42 - Member of co-operative or association	46.2	444 / 382	38
Q43 - Receive support from neighbours or relatives	54.0	393 / 462	9
Q44 - Have access to production/marketing advice or training	70.2	246 / 580	38
Q45 - Government or other regulations affecting production/marketing	49.4	428 / 418	18

7.2. Results from Quantitative Analysis

Results across all reference regions

Question	Yes (%)	No / Yes (n)	Not applicable / blank (n)
Q39 - Have access to subsidies or public financial support	73.1	230 / 626	8
Q42 - Member of co-operative or association	46.2	444 / 382	38
Q43 - Receive support from neighbours or relatives	54.0	393 / 462	9
Q44 - Have access to production/marketing advice or training	70.2	246 / 580	38
Q45 - Government or other regulations affecting production/marketing	49.4	428 / 418	18

Note that the 'Yes (%)' is calculated from the total number of No and Yes responses – not applicable values are excluded.

Results by reference region: Q39 - Have access to subsidies or public financial support

Note that the 'Yes (%)' is calculated from the total number of No and Yes responses – not applicable values are excluded.

		Yes or No responses (n)	Not applicable / blank (n)	Yes (%)
R01	Bulgaria/Montana	5	0	100.0

R02	Cap Verde/Santiago Is	35	0	34.3
R03	Croatia/Varazdinska	6	0	100.0
R04	Czech. Rep	5	0	60.0
RR05	France/Ille-et-Vilaine	10	0	70.0
RR06	France/Vaucluse	10	0	20.0
RR07	Ghana/Gushengu District	40	0	35.0
RR08	Greece/Imathia	38	0	86.8
RR09	Greece/Larisa	38	0	94.7
RR10	Greece/Ileia	42	0	92.9
RR11	Italy/Lucca	30	2	26.7
RR12	Italy/Pisa	24	0	54.2
RR13	Kenya/Uganja	26	2	15.4
RR14	Latvia/Latgale	33	3	100.0
RR15	Latvia/Pieriga	30	0	90.0
RR16	Lithuania	10	0	90.0
RR18	Norway	31	0	93.5
RR19	Poland/Rzeszowski	39	0	100.0
RR20	Poland/Nowosadecki	52	0	96.2
RR21	Poland/Nowotarski	57	0	96.5
RR22	Portugal/Alentejo	37	1	54.1
RR23	Portugal/Oeste	36	0	47.2
RR24	Romania/Bistrita	60	0	93.3
RR25	Romania/Giurgiu	26	0	73.1
RR26	Spain/Casetllon	27	0	85.2
RR27	Spain/Cordoba	40	0	92.5
RR28	Tunisia/Haouaria	23	0	8.7
RR29	UK/Perth Kinross	15	0	46.7
RR30	UK/ Lochaber, Skye	31	0	67.7

Results by reference region: Q42 - Member of co-operative or association

Note that the 'Yes (%)' is calculated from the total number of No and Yes responses – not applicable values are excluded.

		Yes or No responses (n)	Not applicable / blank (n)	Yes (%)
R01	Bulgaria/Montana	5	0	20.0
R02	Cap Verde/Santiago Is	35	0	28.6
R03	Croatia/Varazdinska	6	0	100.0
R04	Czech. Rep	5	0	60.0
RR05	France/Ille-et-Vilaine	10	0	70.0
RR06	France/Vaucluse	10	0	60.0
RR07	Ghana/Gushengu District	40	0	0.0

RR08	Greece/Imathia	38	0	86.8
RR09	Greece/Larisa	38	0	63.2
RR10	Greece/Ileia	42	0	64.3
RR11	Italy/Lucca	29	3	75.9
RR12	Italy/Pisa	24	0	70.8
RR13	Kenya/Uganja	24	4	33.3
RR14	Latvia/Latgale	36	0	38.9
RR15	Latvia/Pieriga	29	1	31.0
RR16	Lithuania	10	0	60.0
RR18	Norway	13	18	23.1
RR19	Poland/Rzeszowski	39	0	7.7
RR20	Poland/Nowosadecki	50	2	30.0
RR21	Poland/Nowotarski	57	0	31.6
RR22	Portugal/Alentejo	34	4	41.2
RR23	Portugal/Oeste	36	0	61.1
RR24	Romania/Bistrita	60	0	36.7
RR25	Romania/Giurgiu	25	1	20.0
RR26	Spain/Casetllon	24	3	70.8
RR27	Spain/Cordoba	40	0	80.0
RR28	Tunisia/Haouaria	22	1	72.7
RR29	UK/Perth Kinross	15	0	33.3
RR30	UK/ Lochaber, Skye	30	1	56.7

Results by reference region: Q43 - Receive support from neighbours or relatives

Note that the 'Yes (%)' is calculated from the total number of No and Yes responses – not applicable values are excluded.

		Yes or No responses (n)	Not applicable / blank (n)	Yes (%)
R01	Bulgaria/Montana	5	0	60.0
R02	Cap Verde/Santiago Is	35	0	57.1
R03	Croatia/Varazdinska	6	0	16.7
R04	Czech. Rep	5	0	80.0
RR05	France/Ille-et-Vilaine	10	0	100.0
RR06	France/Vaucluse	10	0	40.0
RR07	Ghana/Gushengu District	40	0	25.0
RR08	Greece/Imathia	38	0	44.7
RR09	Greece/Larisa	38	0	55.3
RR10	Greece/Ileia	42	0	19.0
RR11	Italy/Lucca	30	2	40.0
RR12	Italy/Pisa	24	0	41.7
RR13	Kenya/Uganja	26	2	38.5
RR14	Latvia/Latgale	36	0	91.7

RR15	Latvia/Pieriga	29	1	89.7
RR16	Lithuania	10	0	70.0
RR18	Norway	31	0	77.4
RR19	Poland/Rzeszowski	39	0	51.3
RR20	Poland/Nowosadecki	52	0	53.8
RR21	Poland/Nowotarski	57	0	61.4
RR22	Portugal/Alentejo	37	1	81.1
RR23	Portugal/Oeste	36	0	61.1
RR24	Romania/Bistrita	60	0	63.3
RR25	Romania/Giurgiu	26	0	46.2
RR26	Spain/Casetllon	27	0	25.9
RR27	Spain/Cordoba	40	0	15.0
RR28	Tunisia/Haouaria	21	2	61.9
RR29	UK/Perth Kinross	15	0	66.7
RR30	UK/ Lochaber, Skye	30	1	70.0

Results by reference region: Q44 - Have access to production/marketing advice or training

Note that the 'Yes (%)' is calculated from the total number of No and Yes responses – not applicable values are excluded.

		Yes or No responses (n)	Not applicable / blank (n)	Yes (%)
R01	Bulgaria/Montana	5	0	40.0
R02	Cap Verde/Santiago Is	35	0	60.0
R03	Croatia/Varazdinska	6	0	66.7
R04	Czech. Rep	5	0	80.0
RR05	France/Ille-et-Vilaine	10	0	100.0
RR06	France/Vaucluse	10	0	10.0
RR07	Ghana/Gushengu District	40	0	0.0
RR08	Greece/Imathia	38	0	94.7
RR09	Greece/Larisa	38	0	92.1
RR10	Greece/Ileia	42	0	78.6
RR11	Italy/Lucca	31	1	48.4
RR12	Italy/Pisa	24	0	37.5
RR13	Kenya/Uganja	26	2	69.2
RR14	Latvia/Latgale	36	0	100.0
RR15	Latvia/Pieriga	30	0	100.0
RR16	Lithuania	10	0	100.0
RR18	Norway	31	0	93.5
RR19	Poland/Rzeszowski	39	0	100.0
RR20	Poland/Nowosadecki	52	0	98.1
RR21	Poland/Nowotarski	57	0	94.7
RR22	Portugal/Alentejo	36	2	41.7

RR23	Portugal/Oeste	36	0	52.8
RR24	Romania/Bistrita	60	0	53.3
RR25	Romania/Giurgiu	26	0	53.8
RR26	Spain/Casetllon	27	0	96.3
RR27	Spain/Cordoba	40	0	55.0
RR28	Tunisia/Haouaria	21	2	14.3
RR29	UK/Perth Kinross	15	0	80.0
RR30	UK/ Lochaber, Skye	0	31	NA

Results by reference region: Q45 - Government or other regulations affecting production/marketing

Note that the 'Yes (%)' is calculated from the total number of No and Yes responses – not applicable values are excluded.

		Yes or No responses (n)	Not applicable / blank (n)	Yes (%)
R01	Bulgaria/Montana	5	0	60.0
R02	Cap Verde/Santiago Is	35	0	31.4
R03	Croatia/Varazdinska	6	0	0.0
R04	Czech. Rep	5	0	100.0
RR05	France/Ille-et-Vilaine	10	0	80.0
RR06	France/Vaucluse	9	1	11.1
RR07	Ghana/Gushengu District	40	0	0.0
RR08	Greece/Imathia	36	2	63.9
RR09	Greece/Larisa	38	0	42.1
RR10	Greece/Ileia	42	0	31.0
RR11	Italy/Lucca	29	3	69.0
RR12	Italy/Pisa	24	0	62.5
RR13	Kenya/Uganja	26	2	23.1
RR14	Latvia/Latgale	36	0	69.4
RR15	Latvia/Pieriga	29	1	62.1
RR16	Lithuania	10	0	70.0
RR18	Norway	31	0	58.1
RR19	Poland/Rzeszowski	39	0	41.0
RR20	Poland/Nowosadecki	49	3	49.0
RR21	Poland/Nowotarski	57	0	59.6
RR22	Portugal/Alentejo	36	2	47.2
RR23	Portugal/Oeste	36	0	58.3
RR24	Romania/Bistrita	60	0	43.3
RR25	Romania/Giurgiu	25	1	60.0
RR26	Spain/Casetllon	26	1	53.8
RR27	Spain/Cordoba	40	0	65.0
RR28	Tunisia/Haouaria	22	1	9.1
RR29	UK/Perth Kinross	15	0	46.7

RR30	UK/ Lochaber, Skye	30	1	90.0
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Results by reference region: Q40: Approximately what percent of your farm income do these subsidies represent?

This data shows the average (mean and median) percentage of farm income from subsidies, for those who have access to subsidies or other public financial support. Only cases where the answer was “Yes” to question 39 were included in the calculation. It seems that some respondents who have access to subsidies or other public financial support gave a value of 0%.

		Mean	Median	n	Not applicable / blank (n)
R01	Bulgaria/Montana	41.0	40	5	0
R02	Cap Verde/Santiago Is	23.5	7.5	12	0
R03	Croatia/Varazdinska	36.7	35	6	0
R04	Czech. Rep	7.7	5	3	0
RR05	France/Ille-et-Vilaine	54.0	50	5	2
RR06	France/Vaucluse	17.5	17.5	2	0
RR07	Ghana/Gushengu District	16.1	20	14	0
RR08	Greece/Imathia	22.4	13	32	1
RR09	Greece/Larisa	27.4	18	35	1
RR10	Greece/Ileia	27.6	20	39	0
RR11	Italy/Lucca	8.0	5	8	0
RR12	Italy/Pisa	28.0	17.5	12	1
RR13	Kenya/Uganja	60.0	60	2	2
RR14	Latvia/Latgale	40.3	40	33	0
RR15	Latvia/Pieriga	37.8	45.5	22	5
RR16	Lithuania	8.5	0.4	5	4
RR18	Norway	33.5	38	28	1
RR19	Poland/Rzeszowski	25.2	20	31	8
RR20	Poland/Nowosadecki	32.5	30	49	1
RR21	Poland/Nowotarski	38.4	30	55	0
RR22	Portugal/Alentejo	18.8	12	17	3
RR23	Portugal/Oeste	10.0	5	17	0
RR24	Romania/Bistrita	34.7	30	48	8
RR25	Romania/Giurgiu	26.3	30	19	0
RR26	Spain/Casetllon	12.0	7	20	3
RR27	Spain/Cordoba	20.3	20	37	0
RR28	Tunisia/Haouaria	0.1	0.1	2	0
RR29	UK/Perth Kinross	22.8	6	6	1
RR30	UK/ Lochaber, Skye	35.4	30	17	4



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