



UNIVERSITÀ
DEGLI STUDI
FIRENZE

DISEI
DIPARTIMENTO DI
SCIENZE PER L'ECONOMIA
E L'IMPRESA

Synthesis of the main results from the Costs & Benefits analysis

Authors:

Andrea Marescotti, Giovanni Belletti and Matteo Mengoni (University of Florence, Italy)

Table of Contents

1. Introduction.....	2
2. Synthesis of results.....	2
2.1. The qualitative assessment on producers.....	2
2.2. The quantitative assessment on producers.....	7
2.3. The qualitative assessment on consumers (focus groups).....	10
3. Main conclusions.....	12



1. Introduction

The present document is an excerpt from the Deliverable 2.2 “Report on costs and margins from the case studies” drafted within the COACH project, and it synthesises the main results from the costs & benefits analysis performed within the project. The full Deliverable 2.2 can be downloaded from the “Useful Documents” section of the Learning Module on Costs & Benefits.

2. Synthesis of results

2.1. The qualitative assessment on producers

Figure 1 shows the perceived (by interviewees) average weighted impacts of the CSAFC and the longer/conventional distribution channel (benchmark) on the set of economic, social and environmental aspects analysed. Since the number of interviewees in each beacon was not homogeneous, we first computed the average weighted impacts within each beacon, and then calculated the overall weighted impacts as an average of those of each beacon.

Beacon/Case study	Country	SFSC/CFN	Driver	N° of interviewed actors
GranPrato - filiera cerealicola a km 0	Italy	SFSC	Collaborative	4
ConServe Project	Italy	SFSC	Farmers-driven	2
Adamah BioHof	Austria	SFSC	Buyer-driven	3
Farmer-miller-baker Network	Hungary	SFSC	Buyer-driven	1
Nyíregyházi Kosár Közösség	Hungary	CFN	Collaborative	1
Bizkaigane Elkartea	Spain	SFSC	Farmers-driven	3
Reintroduction of forgotten crops by Elkana	Georgia	SFSC	Farmers-driven	8
Pipers Farm	United Kingdom	SFSC	Buyer-driven	2
Tierra-papel-tijera	Spain	CFN	Farmers-driven	1
Netzwerk Solidarische Landwirtschaft	Germany	CFN	Collaborative	4
Les Paniers Marseillais*	France	CFN	Collaborative	3
Feldon Forest Farm**	United Kingdom	SFSC	Farmers-driven	1
Tamar Grow Local	United Kingdom	SFSC	Buyer-driven	1

Table 1. List of beacons participating to task 2.2 C&B. SFSC = short food supply chain; CFN = civic food network.

* *Les Paniers Marseillais* is part of the COACH beacon *Miramap Accessibility Working Group*.

** *Feldon Forest Farm* is not a COACH beacon, but kindly agreed to participate in this exercise to support the project’s work in developing and testing out the methodology.

From the graphic, we can see that CSAFCs are perceived to have a very positive impact on all the aspects analysed, in all the three sustainability dimensions (economic, social and environmental). On the contrary, the conventional supply chain appears to have a negative impact on the majority of aspects considered. In the economic sphere, the impact of CSAFC, as well as the difference between the two channels, are particularly high for aspects that deals with economic autonomy (4.4), diversification of sales (4.5, 4.6), risk sharing and risk coping (4.7, 4.8) and equitable distribution of economic gains (4.9, 4.10).

In the social sphere, CSAFC is widely perceived as performing particularly better than the conventional one in aspects related to trust, cooperation and social relationships between stakeholders (4.13, 4.14), personal/community empowerment and wellbeing (4.17, 4.18, 4.19),

preservation and sharing of traditions and knowledge (4.20, 4.21). The difference between the two channels is lower (but still positive for the CSAFC) for aspects such as job creation and preservation (4.15, 4.16, 4.23), and affordability for low-income consumers (4.22).

In the environmental sphere, the impact of the CSAFC is extremely better than that of the conventional supply chain in every aspect considered, especially in pollution and food waste reduction (4.24, 4.25, 4.26).

With respect to Covid-19 pandemic, the CSAFC seems to be more socially and economically resilient than conventional value chains, but the difference is not so stressed, and the conventional chain have a positive impact on this aspect too (4.12, 4.23, 4.31).

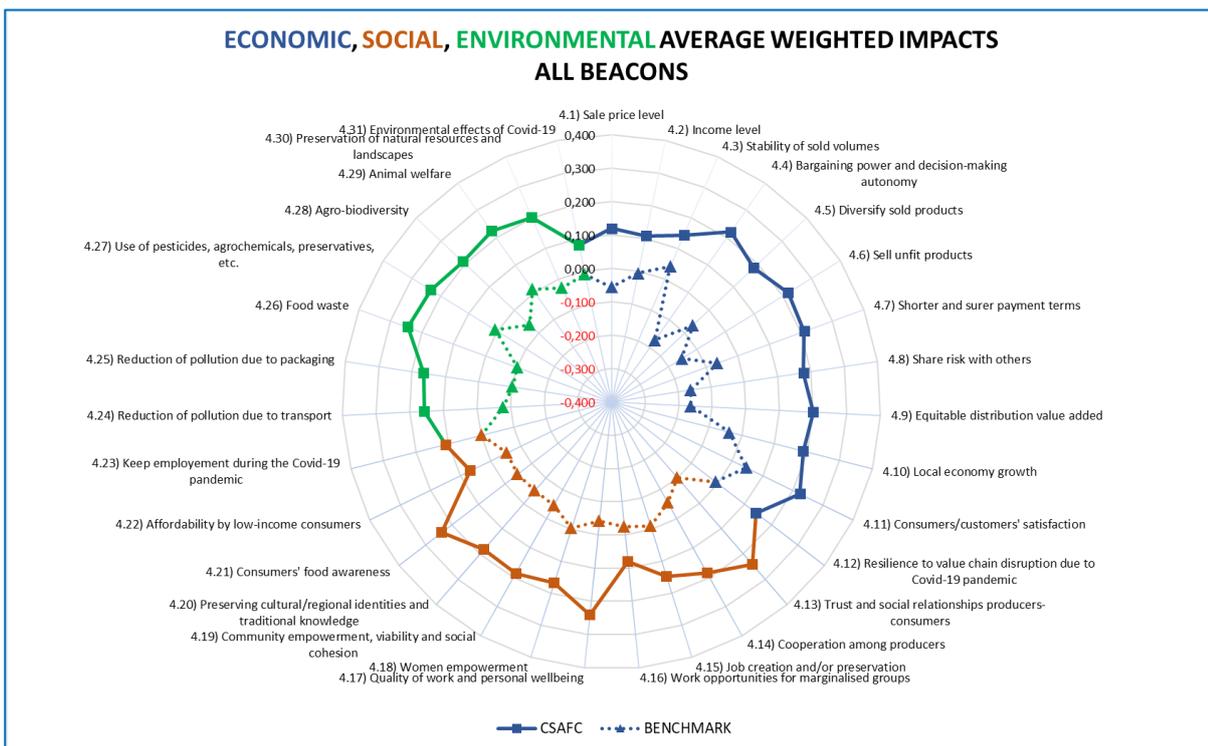


Figure 1. Average weighted impacts of CSAFC and Benchmark. Average of all beacons.

Typologies of actors: farmers VS “rest of the world”

Figure 2 shows the average weighted impacts of CSAFC initiatives perceived by the actors interviewed, distinguishing between “farmers” and “other kind of actors” (i.e., processors, retailers, etc.). Both typologies of actors have a similar positive perception of the impact of CSAFC on all the three dimensions. However, it is interesting to notice how “farmers” give a higher evaluation than “other actors” to the impact of CSAFC on private economic aspects: price and income levels (4.1, 4.2), stability of sold volumes (4.3), sell unfit products (4.6), risk sharing and coping (4.7, 4.8). On the other hand, “other actors” give a higher evaluation than farmers to the impact of CSAFC on the community and the territory: equitable distribution of value added (4.9), local economic growth (4.10), community empowerment and social cohesion (4.19), preservation of traditional identities and knowledge (4.20), reduction of pollution (4.24, 4.25, 4.27), preservation of rural areas (4.28, 4.30). This difference in perception could partially reflect a real difference in the impact of CSAFCs on the two typologies of actors, but it probably reflects also a “perceptive difference”. Indeed,

downstream actors in the value chain (e.g., retailers) are closer to consumers and more in a position to perceive societal and territorial impacts than farmers and, in general, upstream actors in the value chain.

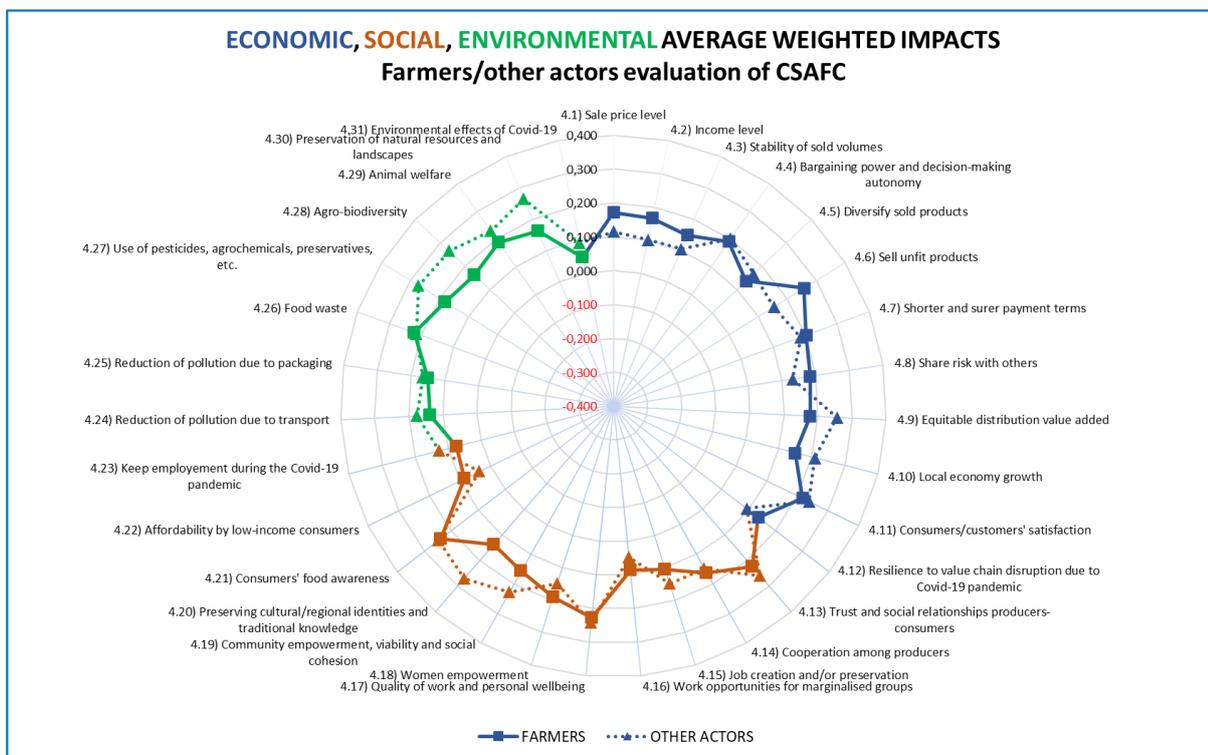


Figure 2. Average weighted impacts of CSAFC: farmers VS other actors.

Typologies of CSAFCs: Short Food Supply Chains VS Civic Food Networks

Figure 3 represents the average weighted impacts of the CSAFC in Short Food Supply Chains initiatives (SFSCs) and Civic Food Network initiatives (CFNs). From the graphic, we can see that CFNs actors perceive as higher the impact of CSAFC on most of the aspects across the three dimensions (economic, social and environmental), compared to SFSCs actors. This is especially visible for economic aspects such as stability, decision-making autonomy and risk coping (4.3, 4.4, 4.6, 4.7, 4.8), social aspects such as quality of work, wellbeing and people empowerment (4.17, 4.18, 4.19), and environmental aspects such as reduction of pollution and animal welfare (4.24, 4.25, 4.29).

This overall higher satisfaction of CFNs actors regarding the impact of CSAFCs probably reflects a lower orientation towards the market of such initiatives, which often experience a more proactive role of consumers and civil society components. This could explain why the perception of societal and territorial aspects is higher, and why more in general the satisfaction for the impact of CSAFC is higher, as such kinds of initiatives are exactly built to unhook producers and agriculture from global markets, attaching them to local territories and communities. Moreover, CFNs often see the participation of small-size producers, for which CSAFCs are a fundamental and sometimes the only way to access the market. Vice versa, some of the SFSCs initiatives we analysed are led by medium-size producers, already well established on local markets, for which the CSAFC is perhaps less vital, although still very important.

Another interesting difference is related to the perception of the economic and social resilience of CSAFCs to the Covid-19 pandemic (4.12, 4.23), higher in CFNs actors than in SFSCs ones. On one hand, this can be explained by the fact that CFNs actors perceived more the resilient effect of CSAFC during the pandemic, due to their weaker position in conventional markets. On the other hand, CFNs themselves are characterised by stronger solidarity relationships among the actors involved than SFSCs, and their importance was perceived a lot during the pandemic.

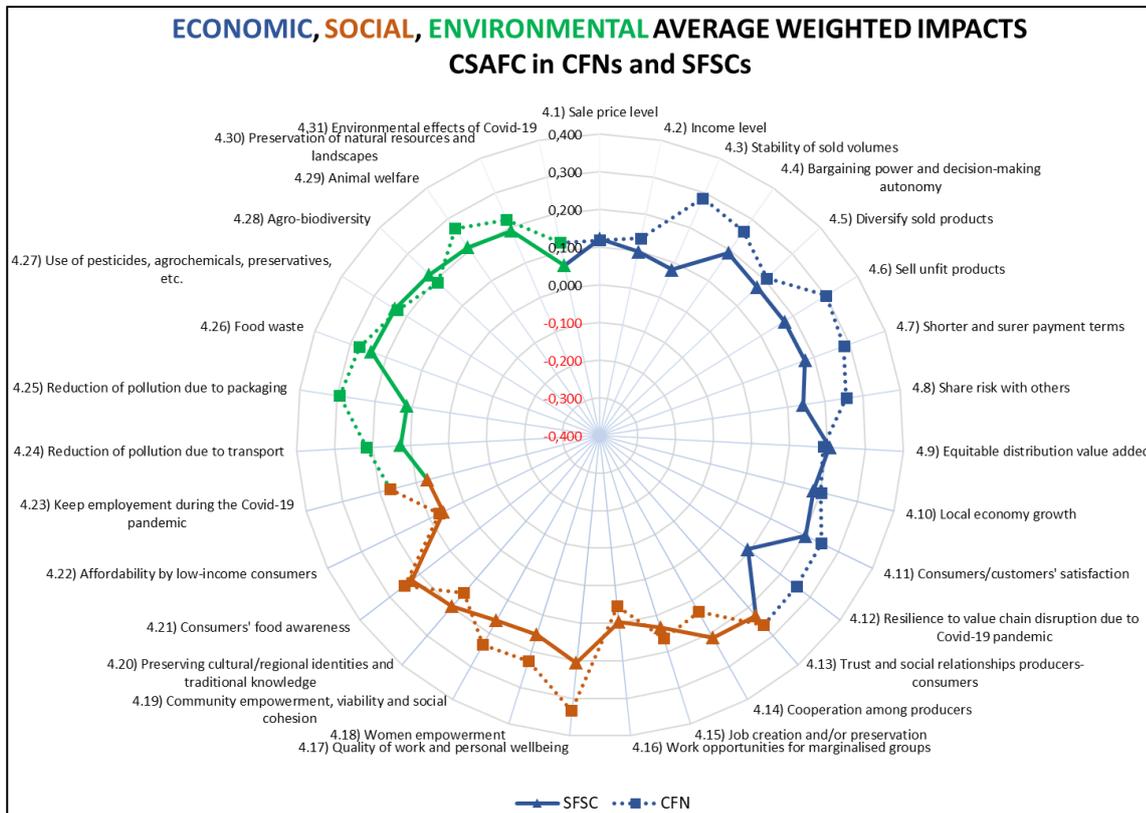


Figure 3. Average weighted impacts of CSAFC: Civic Food Networks (CFNs) VS Short Food Supply Chains (SFSCs).

Typologies of drivers: Farmers-driven VS Buyers-driven VS Collaborative initiatives

Figure 4 represents the average weighted impacts of CSAFCs according to the different typology of stakeholder leading the initiative, distinguishing between farmers-driven, buyers-driven (i.e., retailers or downward actors in the value chain) and collaborative initiatives. As we can see from the graphics, there is no significative difference between the initiatives characterised by the three different drivers. This suggests that the typology of driver leading the initiative does not affect significantly the impact of the CSAFC on either of the aspects analysed.

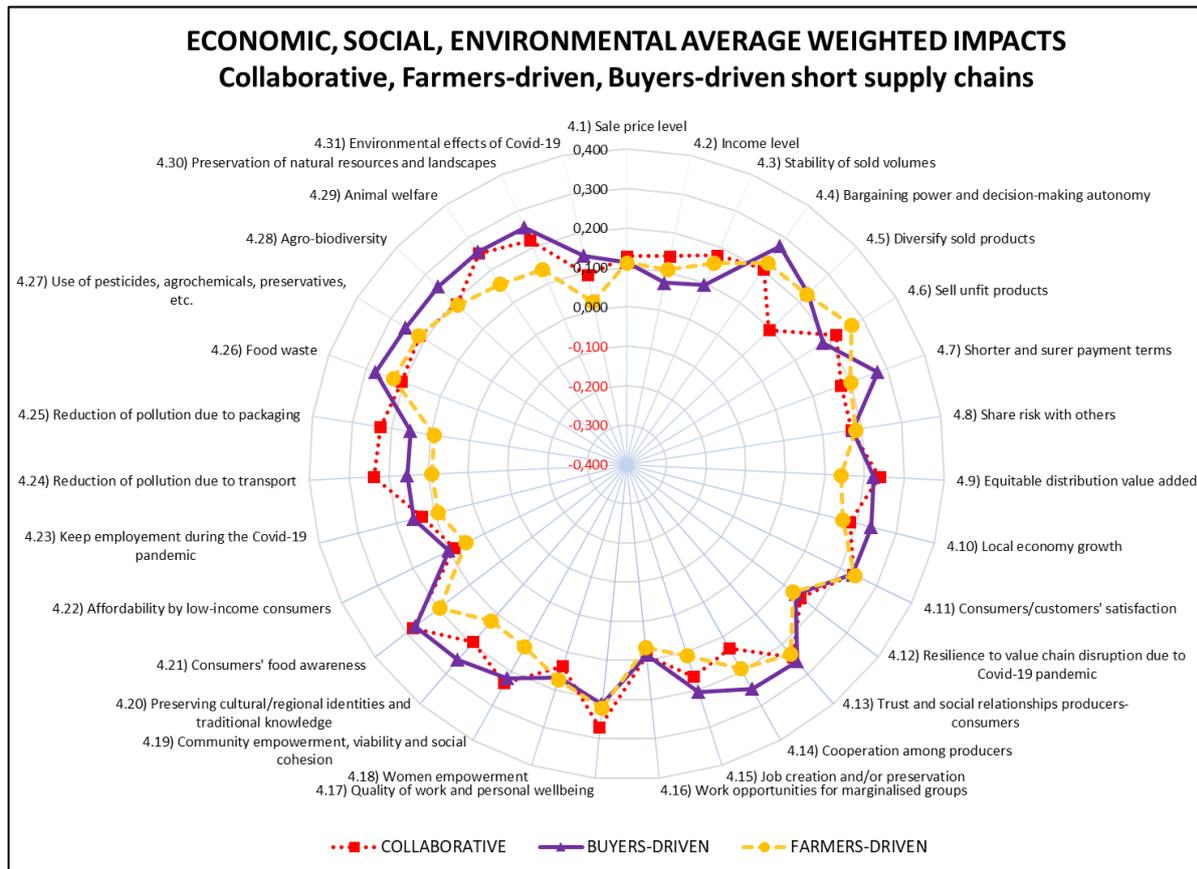


Figure 4. Average weighted impacts of CSAFC: Collaborative VS Farmers-driven VS Buyers-driven initiatives.

2.2. The quantitative assessment on producers

The results of the quantitative analysis largely confirm the results of the qualitative analysis. Quantitative analysis was conducted on 8 beacons, for a total of 15 interviews. Due to the unavailability of data, it was not possible to calculate the planned indicators for all the 8 cases.

Table 2 gives an overview of the results by comparing the economic results obtained from CSAFC and conventional supply chains. For each economic indicator and for each beacon, the table reports the relative percentage difference between the CSAFC and the conventional supply chain (benchmark), calculated as follows: $[(X_{\text{CSAFC}} - X_{\text{BENCHMARK}}) / X_{\text{BENCHMARK}}] * 100$.

The calculation is made on unit prices, referring to the unit of measurement appropriate to the product and the case analysed - e.g., quintal of wheat, or predetermined basket of fruit and vegetables.

BEACON	Feldon Forest Farm	Adamah BioHof	Adamah BioHof	Pipers Farm	Pipers Farm	Gran Prato	Gran Prato	ConServe	Les Paniers Marseillais	Tierra-papel-tijera	Bizkaigane Elkartea
TYPE OF FIRM	farmer	farmer	cheese-maker	butcher/dispatch	farmer	farmers *	miller	farmers*	farmers**	farmer	farmer
UNIT REVENUE	10%	96%	12%	39%	13%	87%	76%	479%	23%	204%	108%
UNIT COST	292%	n.s.	10%	6%	77%	46%	74%	152%	16%	n.s.	2728%
Of which: workforce	n.a.	n.s.	34%	0%	n.s.	23%	76%	n.s.	44%	n.s.	n.s.
TRANSF. VALUE	n.s.	44%	104%	571%	8%	97%	65%	411%	187%	143%	34%
VALUE ADDED	-14%	81%	46%	128%	13%	91%	86%	978%	30%	178%	70%

Table 2. Comparison between economic aggregates of CSAFCs and conventional chains (benchmarks).

Legenda: n.a. = not available; n.s. = not significant; * = average of two farmers; ** = average of three farmers. Transformation value = total revenues – total costs. Value added = transf. value + workforce + machinery and equipment + buildings/sale facilities

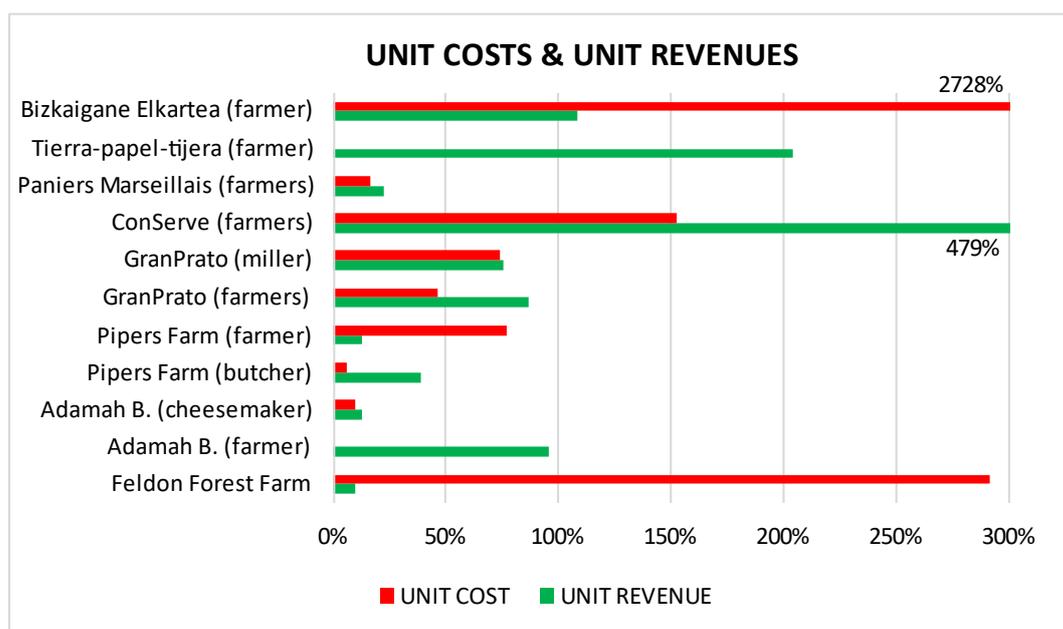


Figure 5. Comparison of revenues and costs of CSAFC and the conventional supply chain in percentage terms.

First of all, in all the cases unit Total revenues and unit Total costs are both higher in the CSAFCs than in the conventional chains: accessing CSAFCs allows producers to get better prices, but at the same time requires more resources and higher production costs. However, in all cases analysed but one, revenues increase more than costs (figure 5), which is reflected in increased transformation value.

The transformation value calculated for farms measures the contribution margin of the marketing activity to the coverage of agricultural production costs. It can be calculated for 10 cases (7 beacons). Concerning the agricultural stage (7 cases), the transformation value is always largely better for the CASFC than for the conventional benchmark. Even in the case of the three processors, CASFC performs vastly better than the conventional; in this case, the transformation value measures the contribution margin of the marketing activity to the coverage of processing and distribution costs (Figure 6).

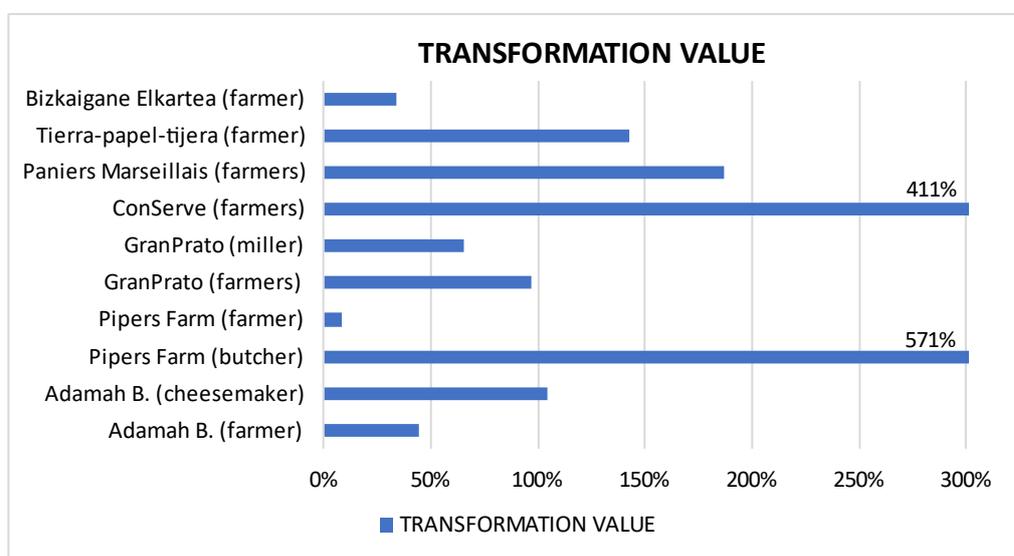


Figure 6. Comparison of transformation value in percentage terms.

The value added is a key economic variable. As pointed out by the Commission of the European Communities (2009), the value-added of a sector is the difference between its gross output (total production value of the sector) and its intermediary inputs (costs of production inputs). It measures the amount of value created by the sector, to be then shared between labour (wages and compensations), capital (remuneration of capital and profits) and taxes. Value-added of a sector is a good proxy for its economic importance and its evolution provides insights on the sector's economic health. Moreover, within a supply chain, the value-added of the different sectors are linked since gross output of the upstream sector is a component of intermediate inputs of the downstream sector. Comparing evolution of the repartition of value-added along the food supply chain can then be informative on the evolution of bargaining power along the chain and on the inability for a sector to maintain its value-added faced with an increase of costs of intermediate inputs. It is worth reminding that this analysis considers only the value added of the valorisation activity through market, therefore it does not consider the value added generated in the farming activity.

As far as farming activity is concerned, out of the 8 available beacons, 7 present a higher or significantly higher value added than the benchmark. The range is from +13% (the Pipers Farm

farmer) to +143% (Tierra Papel Tijera) and with an outstanding value of +978% (figure 7), which is due to the fact that in this case the CSAFC allows for recovering a commercial value on a product (tomato) almost exclusively destined for waste because not compliant with the market standards for fresh products. A similar result is obtained for the three firms operating downstream in the supply-chain.

The increase in value added depends on the increase in labour costs too, as in most cases the valorisation process through CSAFC is more labour-intensive than the benchmark (more activities to be carried out by producers involved in the CSAFC).

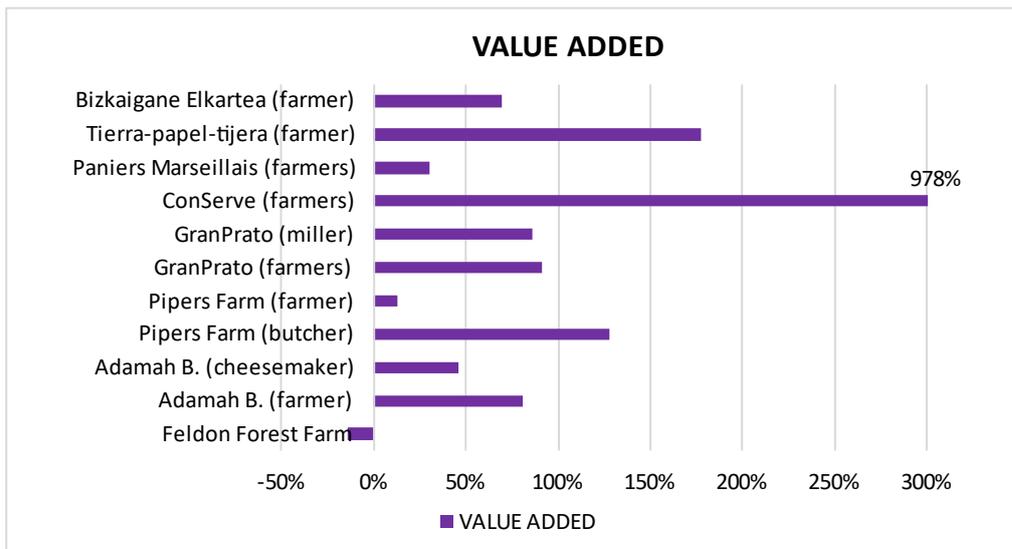


Figure 7. Comparison of value added in percentage terms.

In general, the better performance of CSAFC compared to conventional is evident, notwithstanding the margins of uncertainty linked to the difficulty of allocating fixed, common and general costs.

There are significant differences in performance between the various cases, which depend on many factors, one of the most important of which is given by the characteristics of the firms. “CSAFC is for many, but not for all”. Participating in CSAFC often requires the availability of internal resources not always accessible (e.g., availability of work, knowledge and skills, equipment, etc.). Within the cases analysed, there is a variety of typology of farms ranging from very small almost subsistence ones to more structured farming activities. Moreover, the benchmarks considered for the analysis are not always a conventional/long/modern channel. In fact, one of the criteria for choosing conventional was that it should be truly accessible to the farm in question, and since these were often small farms it was often a matter of local and short marketing channels. Therefore, in some cases the benchmark is still a quite short chain operating with conventional criteria.

2.3. The qualitative assessment on consumers (focus groups)

Four focus groups have been organized (see full Deliverable, *Annexes Pub010* and *Pub011*):

1. Pipacs bakery (farmer-miller-baker network) - focus group 14th October 2021
2. Pipacs bakery (farmer-miller-baker network) - focus group 19th October 2021
3. Solawi beacon - focus group 13th December 2021
4. Solawi beacon - focus group 13th December 2021

Consumers participating in the focus groups expressed their opinion and ideas about costs and benefits from their participation to the initiatives. A particular attention has been paid to the issue of access to food for low-income consumers. Main results can be summarized as follows:

Product quality: All consumers expressed their appreciation about the quality of the products (bread for Pipacs, mainly vegetables for Solawi). In particular, it was underlined how nutritional and organoleptic quality, as well as durability of the product in time, was higher than products bought on conventional marketing channels (supermarkets).

Products availability and variety: On the other hand, especially for vegetables, consumers pointed out how products cannot be available all year round as in alternative channels, and especially during wintertime there is a lack of variety of products (that might not allow for a balanced diet), together with a limited quantity available for certain products due to the scale of production of the farmers (Solawi) and the bakery (Pipacs). Indeed, the advantage of supermarkets is that they have always availability of products and a higher variety.

Information and learning: All participants agreed on the higher access to information in these CSAFCs about the quality attributes of the products provided, and also on the characteristics of the production process, and raw materials used (both quality and provenience). This is due to the direct contact and trust relationships with producers and the friendly atmosphere created within the initiatives, which allows consumers to acquire more knowledge about producers' problems and appreciate better how much work is needed to produce such a food (Solawi), or to benefit from producers' knowledge (bread-baking courses and information on how to bake bread at home in Pipacs).

Social relationships and participation: Thanks to the friendly atmosphere and consumers' commitment and direct participation, social relationships are enhanced, and exchange between consumers, and between consumers and producers, can be established.

Transformative value and solidarity: One of the most important issues inspiring consumers' participation (especially in the case of CSA Solawi) is the possibility to contribute to transforming dominant industrialized production model, which shows up in many aspects of the relations with producers ("Transformation in agriculture would be that the farmers can produce good food at a fair price for themselves, so that they can live well from it. That is the transformation that must take place. And I think that's where support is needed. In my opinion, we have to move away from supporting factory farming, large-scale agriculture, where chemical giants are supported that destroy the soil"). The emphasis put on organic production, the use of more traditional production methods, the preference granted to regional materials (solidarity towards local community), the attention paid to the quality of work, and more in general the higher environmental consciousness of consumers are all signals of this commitment. More important, the possibility to co-produce and co-determine the transformation is the core of the initiatives: "I believe that what is radically

different is co-determination and participation in the production process, which removes consumers from this dichotomy between production on the one hand and shopping, consumption on the other, because I co-produce what I also consume in the end. And through that, I get a different relationship to it and a change of consciousness takes place”.

Low-income consumers: During the focus groups, a special attention has been devoted to the access to food for low-income consumers. In general, consumers are conscious that on average prices of products are higher in these CSAFCs than benchmark long channels (supermarkets), also considering that often products are organic, but mainly because “in the supermarket the costs are passed on to the community”, while in these CSAFCs initiatives higher prices reflect the higher care of the environment and fairness in working conditions. Higher prices may cause more difficult access for many people. This problem may be partially overcome by solidarity mechanisms (such as those used in the CSA), where better off consumers contribute to lower the prices of products for low-income consumers. At the same time there is the issue of selecting and involving low-income consumers: low-income consumers may not show-up on a voluntary base (“I suspect that there is “shame” to enter into it...”), and a high number of low-income producers may menace the financial stability of the initiative, increasing prices too much for more affluent consumers. On the other hand, prices cannot be lowered without menacing the fairness of price for producers. Prices are not the only barrier to access. Information, time availability, education and knowledge make it difficult for some people to access the initiative. As a CSA participant put it, “how do you manage to distribute the burdens well so that they are spread over as many shoulders as possible, and you don't get into a problem where a few do too much and take on too much?”.

Some limits: Most consumers agree that participating to these CSAFCs is more time-consuming than alternative marketing channels, due not only to voluntary participation in the organization of the initiatives themselves, but also to the need of preparing, cutting and cooking products. This may limit citizens’ participation and involvement (“certain people simply don't have these opportunities to get involved in such structures and invest time in everyday life. And that is a bit of a model question, because the model is based on participation”), and asks for some solidarity mechanisms where some participants offer higher amount of their time, although this may generate some tensions within the group due to unbalanced efforts. Other limit evidenced during discussion was the lack of financial resource and the greater logistical effort due to the small scale of the operations. It has been proposed that the public, especially the EU through the CAP, could insert these initiatives within the beneficiaries of public funds.

3. Main conclusions

Results of both qualitative and quantitative analysis showed how on average CSAFCs perform better than selected benchmark/conventional marketing channels.

Economically, prices for producers are often higher, as producers are able to act as “price makers”, but both transformation value and value added are higher, too. Moreover, CSAFCs show a higher stability of incomes and market sales, thanks to more stable and direct relationships with customers and/or end consumers.

Notwithstanding, participating in CSAFCs normally implies additional costs to cover, especially labour and transport/logistics, and producers assume responsibility for additional supply chain functions, such as processing, distribution, and marketing, to capture revenue that would otherwise go to a third party.

Moreover, the size of the market is still insufficient. The too small volumes marketable increase average fixed costs per unit of product sold, thus limiting profitability of these channels. Multiple marketing channels are therefore put in place by producers, to diversify their sales. However, for some small producers, CSAFCs are the only possible way to “stay on the market”, due to the lower barriers to entry and solidarity mechanisms.

CSAFCs have been recorded as performing very well also in the social sphere (higher autonomy, cooperation and social relationships between stakeholders, trust and solidarity, etc.) and in the environmental sphere (reduction of pollution and food waste).

Some general considerations can be drawn in relation to transversal aspects characterizing CSAFCs.

On average, the economic sphere was considered less important than social and environmental ones, and even within it, attention was paid more to stability rather than income increase.

For many interviewed producers CSAFCs are just one of the multiple marketing channels used, all being useful for many reasons (limited capacity of CSAFCs to absorb all productions, different quality requirements, etc.). Even when the CSAFC performs better than the conventional ones, the complete shift in the short term is often impossible (and may not be desirable). Moreover, for producers, the assessment of the cost-effectiveness of participation in CSAFCs quite often transcends the mere calculation of economic marginality and involves more strategic dimensions, such as the synergy with other commercial channels and the search for an overall coherence of the company. It is also worth emphasizing that for many of the producers and other supply chain actors in our sample, the underpinning motivation is really concerned with transforming socio-economic relationships in order to support farming and supply chains which protect and regenerate nature and deliver fair livelihoods and ‘good’ food. In these cases, participants often stressed that the success of their initiatives could not be reduced to economic indicators. Moreover, they could not be compared to ‘conventional’, industrialised and larger scale supply chains. Some participants would not or could not identify a benchmark comparison for this reason because they argued it would be comparing very different things (‘apples and oranges’) and would risk portraying their initiatives as performing ‘poorly’ in economic terms, not least because the synergy between their economic activities was not captured. There was also a concern that the methods used would neglect their socio-environmental benefits and not convey the status of the beacons as ‘works in progress’ and innovations which are still unfolding. In many cases, CSAFCs become a niche for social innovation, a “political arena” where advocacy activities can take place in order to inform and influence policy-makers in their decisions, with the aim of promoting sustainable agri-food systems.