

[Paper]

Sustainable Rural Livelihoods to Analyse Family Farming Dynamics: A Comparative Perspective

Pierre-Marie BOSC^a and Jean-Michel SOURISSEAU^b

^aUMR Moisa, CIRAD

^bUMR Art-Dev, CIRAD

Abstract

The very nature of family farming makes it a complex scientific subject, being at the same time a social form of production and an economic agent. Its nature challenges disciplines that most of the time overlook dimensions that do not fit in with their own framework leading to partial views in anthropology, sociology, political science or economics, just to mention the most common disciplinary focus on rural societies.

We suggest exploring the well-known Sustainable Rural Livelihood framework as a comprehensive and open conceptual design to address the evolution of family farming. While the entry point concerns individuals, it also considers the social structures and institutions in which they are embedded. It also contemplates natural, social and human assets in addition to physical and financial ones. The activity system developed by each individual within its social setting goes beyond sectorial approaches; the strategies developed are contextualized and influenced by policies. To illustrate how this framework can be implemented, we developed a case study approach in contrasting rural contexts ranging from Argentina, Brazil or Nicaragua for Latin American situations, to Indonesia, China or India for Asia, or to Mali, Cameroon or Mozambique for African illustrations. The cases will not be extensively presented here as we choose to highlight some of the main findings and crosscutting themes as ways and means of adapting to changing contexts.

We also discuss the challenges and perspectives faced by family farming from other forms of production and provide some insight into “blind” issues: the social drawbacks and political dimensions linked to agriculture related to broader territorial and national concerns.

Introduction

Our contribution relies mainly, but not exclusively, on a collective book published in early 2015 “Diversité des agricultures familiales de par le monde” [Diversity of family farming across the world]. The book¹ is based on 18 case studies centring on six crosscutting themes: self-provision and non-market issues, mobility, family business farms, in and off farm diversification of activities, social issues and political territorial dimensions. The aim of the book, and therefore of this article, is to describe family farm diversity reflecting three objectives.

¹Bosc, P.-M., Sourisseau, J.-M, Bonnal, P., Gasselin, P., Valette, E., and Bélières, J.-F., 2015. Diversité des agricultures familiales de par le monde. Exister, se transformer, devenir, Collection Nature et société, Éditions Quæ.

The first objective is to produce evidence of the diversity of what is hidden behind the meta-category “family farming” and to provide a picture of that diversity by characterizing “real” farms and their dynamics in contrasting contexts. The second objective is to test, under a variety of situations, the capacity of the “Sustainable Rural Livelihood” framework to characterize family farms, their diversity, and the way they offer perspectives for rural household development. The third objective is to use complexity analyses of farms around the world to justify specific and context-adapted policies, taking into account the role of diversity and family-based functioning in development.

The book comes with a subtitle of three verbs: to exist, to transform and to become. Hence, this paper is structured around the following positions:

- Family farms do exist and this is a massive fact on a world scale.
- Family farms do transform, they are not a relic from the past and are able to cope with contemporary challenges.
- Family farms do have a future. But what will family farms become in a complex and unstable world? Their future needs to be based on new sets of innovative policies moving away from standard and mere sectorial models.

These three sections will follow on from a brief section dealing with the conceptual framework.

1) The Sustainable Rural Livelihood framework and the diversity of contexts for the case studies

The project reflected in this collective book arose from deliberations started a few years ago coming from dissatisfaction with how to name farming structures and how to provide evidence of their transformations (Sourisseau et al., 2014 and Sourisseau, 2015). From these initial perspectives we decided to open up the scope through a call for contributions, which made it possible to extend the number of cases representative of contrasting contexts. The unity of the approach arose from the choice to focus on a single-family farm type, regardless of any representativeness or “mean family farm” type in a given territory. Its unity also came from the choice of a common framework, which we revisited and combined with a rigorous definition of family farming.

Why choose SRL? Firstly because it takes into account changes in the environment (physical, social, economic and institutional) on various scales, enabling a study of structural changes at holding level, but also the diversity of agricultural practices and the place of agri-

culture within the activity and income system developed by the individuals within the social unit running the farm (Sourisseau et al., 2014).

This SRL framework also offers undeniable prospects for going beyond the usual criticism of methodological individualism. It involves introducing the notion of capabilities (Sen, 2000), which refers explicitly to the keystone role of social structures, organizations and institutions, which in turn paves the way for taking into account policies. It recognises that farming (and non-farm activities) is based on several types of assets / resources, the importance of which depends on the social relationships, institutions and organizations in which families structure their strategies. The institutional dimension is clearly an invitation to study and link family / holding levels with other levels of organizations or institutions as products of collective action. This is especially relevant for smallholder producers to improve their capacity to increase their access to assets, to gain power in market relations and to have a louder voice in public arenas.

These perspectives fit in with current concerns to characterize the contemporary forms of

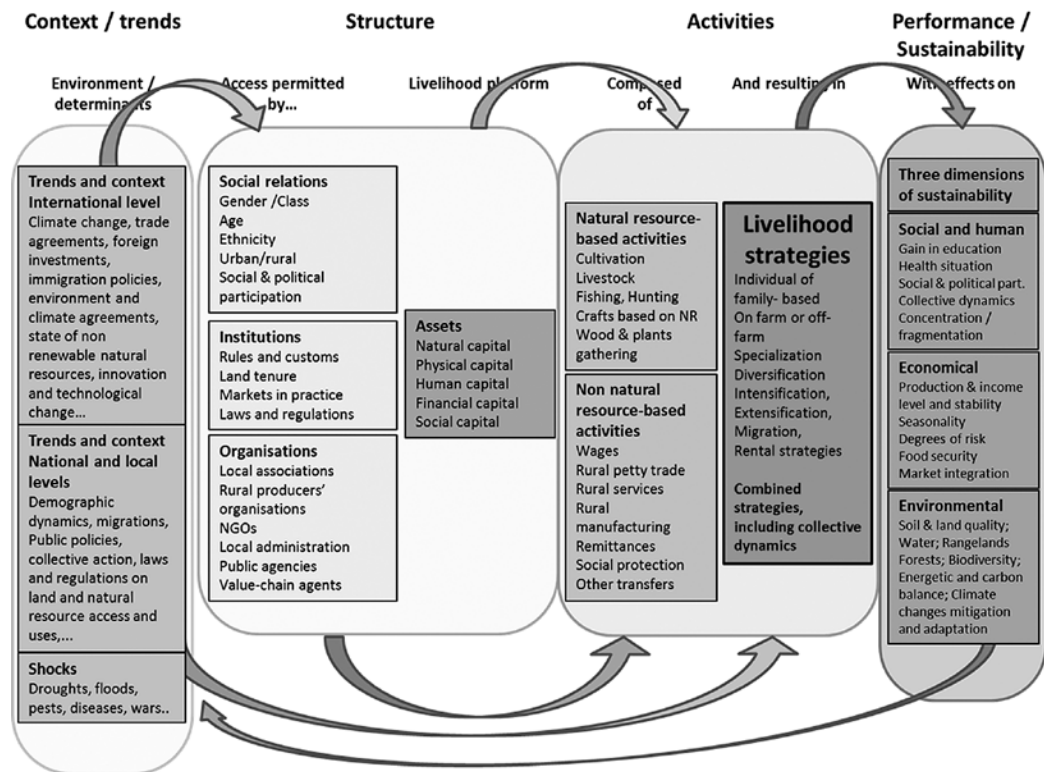


Fig 1. Summarized glimpse of the SRL approach (according to Ellis 2000)

Source: Authors based on Sourisseau et al. (2014)

agricultural production, especially by including the diversity of non-farm activities, which is a major trait of agriculture in both northern and southern countries. Lastly, it combines a certain degree of standardisation and essential adaptability to the diversity of contexts.

To sum up, the SRL framework offers a diversified vision of the assets that can help in breaking away from size as the main driver for progress in agriculture: not only does land matter but social and human assets and access to investments (financial assets) are also of importance.

It is highly compatible with farming system approaches and encompasses agriculture as one of a diversity of agricultural activities.

And lastly it makes it possible to engage in asset accounting (which can of course be criticized and improved) to allow a comparative perspective.

2) How can family farming be defined?

For this purpose, our aim was to draw up a definition that would work in identifying family farming independently from the context, be it in Senegal, Argentina, France, USA, Poland, China or Mozambique, etc.

Why? The first objective of such a definition is to assess the importance of this type of farming on a world scale, but also within each country. This form of farming is challenged both at ideological level and on the ground with the wave of so-called “investments” in the agricultural sector. The latter refers more to a huge land-grabbing process led by a variety of old and new players in the agricultural sector and the former is more a short-cut that identifies the partial product of a long-term evolutionary process (large-scale farms in western countries) with a “ready to use” model to “modernise” agriculture independently from the context (large-scale farms with hired workers as a model). Consequently, the first challenge is a precise definition, so as to be able to count the numbers (social weight) and thereby assess the contribution of this form of production. The second challenge is to avoid confusion stemming from policy-oriented definitions used to identify the recipients of policy measures. Lastly, the ideological dimension is another threat that can be fully understood when referring to “peasant” farming, which basically refers to “family farming” but carries a lot of ideological representations and is by no means operational (Bosc et al., 2015; Bélières et al., 2015).

We therefore propose to define family farming through a combination of two main fea-

tures. The first is the existence of organic links between the family as a social unit and the production unit as an economic organization. The second one is the exclusive reliance on family labour excluding permanent hired labour.

The correspondence between the family patrimony and the economic assets of the farm explains to some extent the resilience of this form of farming. In contrast, “Enterprise farm” types, in which the owners of the economic assets and the workers belong to different worlds without any organic linkages, appear to be more vulnerable to shocks. In the long run, family farming has proven more efficient, more resilient and the “Estate” or entrepreneurial model could not cope for tropical agriculture (Daviron, 2002). This position also holds for the western developed agricultural world despite the confusion brought into the debate by the legal status of many large-scale farms that adopt an “enterprise” or “business” status for fiscal or management reasons. They remain fully owned and managed by the family and, as in southern countries, they stay in the landscape when “corporation” or “enterprise” types fail (Friedmann, 1978).

Then, for practical and analytical reasons, we choose to limit the family farm type to those farms relying exclusively on family labour. Starting from one hired worker, we propose to consider them as family business farms: they remain family owned and managed, but they introduce the wage relation into the model. Such an evolution tends to make it less flexible compared to the family model represented by Chayanov (1990), where the remuneration of the family is “what remains when all charges have been paid”. The wage relation tends to reduce flexibility since the family can accept a reduction in their earnings, while wages have to be paid. Last but not least, in order to easily produce statistics on family farming, the restriction of family farming to those farms relying on family labour only is a way of rapidly identifying and counting family farms, if data on the type of labour have been correctly collected - which is not always the case in national censuses².

We then estimated that using labour as a core discriminating variable is a more robust method for identifying family farming across contexts than, for example, size, be it in ha, head of animals/cattle or gross margin. This definition brings out the role of labour, which is the main source of investment in most agricultural systems around the world (Mazoyer, 2001; HLPE, 2013). Labour in agriculture is largely outside social protection concerns (HLPE, 2012) while it generates the highest share of world food production and supply (see below).

² Further development should lead to define workers categories, in order to identify precisely the type of “contract” considered as a wage relationship between farmers and workers. Many situations remain ambiguous (slavery, recurrent mutual help in the long run, informal and non-monetary long term contracts, etc.). In the same vein, a specific attention should be paid to high level and recurrent temporary employment that can be assimilated to permanent labor (see Darpeix et al. (2013) for the case of France).

	Entrepreneurial Agricultures		Family Agricultures
	<i>Enterprise farm</i>	<i>Family business farms</i>	<i>Family farm</i>
Labour	Exclusively hired labour	Hybrid: family labour and presence of permanent hired labour	Family labour No permanent hired labour

Fig 2. Exploring family farm diversity: a typology

Source: Bélières et al. (2015)

Each of the case studies presented helps to describe the diversity of family farms around the world. This choice, along with others (Brookfield and Parsons, 2007), helps to highlight the wide diversity, and at the same time the unity, of the family-farming model. The book presents 18 case studies in highly contrasting contexts ranging from EU situations (Poland) to world giants for family farming such as India and China (Tibet). All the continents are represented with, African³ cases (9) including Egypt and Madagascar, and cases from Latin America⁴ (4), Asia⁵ (3), and Europe and Oceania⁶ with one case each.

Before returning to the lessons learned from these cases, we highlight some aggregated data that demonstrate the importance of this form of production on a world scale.

3) Family farms are a massive fact: What should a worldwide model be?

Data to identify family farms are scarce since no definition of family farming was available at the FAO before 2013 so it could not be used to produce statistics. We therefore have to rely on a proxy and the variable most commonly used is farm size expressed in ha. Based on these data, we can consider that there are 570 million farms worldwide in developed and developing countries with two major countries in terms of large numbers: India 25% and China 35% with East and South-East Asia accounting for another 15%, meaning that Asia represents around three quarters of all family farms around the world. Sub-Saharan Africa (SSA) population will rise quickly in the coming decades. In comparison, high-income countries account for only 4% of the total number of farms (see figure below).

Consequently, family farmers do exist; they are not a mere concept but a massive reality worldwide.

Each region of the world has its own specificity as far as 'farm size' is concerned and "small

³ Egypt, Mali, Benin, Mozambique, Senegal, Cameroon, Madagascar, Burkina Faso and Niger.

⁴ Nicaragua, Ecuador, Brazil and Argentina.

⁵ India, Tibet/China and Indonesia.

⁶ New Caledonia.

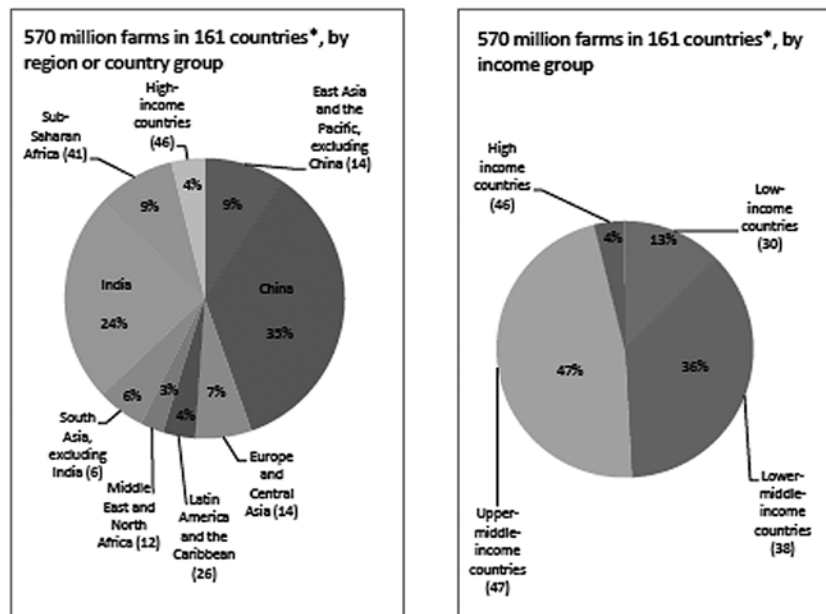


Fig 3. Share of farms worldwide, by country group

Source: Lowder et al. (2014)

size” or “smallholder” agriculture is not limited to developing countries. In the EU 80% of the total number of farms are under 10 ha and in the US the smallest farm categories account for 91% of the total number of farms. So, in terms of population employment and livelihoods, as well as the territorial “footprint”, and even if precise statistics are missing, small farms that are mostly family farms are far from negligible!

In terms of employment, Asia is again a key continent with 78% of the world total share of agricultural employment, with the dominant weight of China (38%) and India (20%). In 2012, Africa accounted for 15% of total world agricultural workers, far beyond the “Rest of the world” (7%), and notably Europe (1% only). However, regarding labour, it is important to consider the future demographic trend since Africa has not yet entered its demographic transition, which means that this continent will experience a significant population increase in the coming decades. Based on UN demographic prospects, Losch (2016) calculates that sub-Saharan Africa’s labour force will increase by nearly 800 million by 2050. This increase will account for 62% of the world’s total labour force expansion, and at least 80% of labour force expansion in agriculture.

According to D’Odorico et al. (2014), ETC (2009) and their estimates, mostly based on FAO data (FAO, 2014), the share of total world food produced by family farms ranges from 70 up to 90% of the food produced and consumed on a world scale. Based on an appraisal by

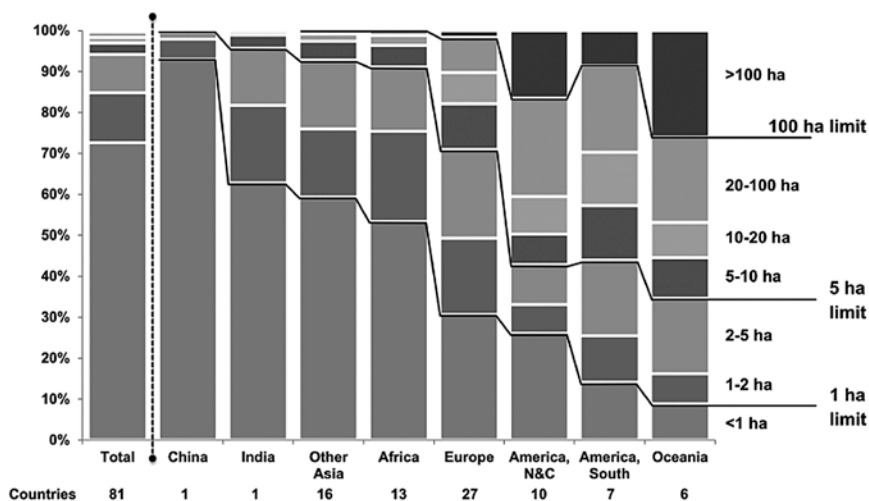


Fig 4. Regional diversity of holding size patterns (81 countries set)

Source: HLPE (2013) based on FAO data sets

researchers in different value chains, Cirad estimated the family farm's contribution to global world production of rice, plantains, roots and tubers, coffee, cocoa or cotton at up to 80% (Sourisseau, 2015).

As shown by all these data, these strong features portray a world social and economic phenomenon: family farms do exist and are essential to world food security. However, our collective book provides a contradictory and paradoxical picture: when feeding themselves and the world, they do it with limited assets which reveal the difficulty of investing, when feeding the family or providing care for the family is the top priority. It also shows that in the majority of cases, agriculture is usually part of an activity system that derives livelihood from other sectors. This leads us to question the large-scale and market-oriented type of model that is promoted, as we found that specialized and market-oriented farms are just a tiny share of the world farms' population. Should it therefore be a universal model?

4) The capacity of family farming as a whole to transform and display resilience

The domination of family farms around the world demonstrates their capacity to adapt. They are not just static and a kind of relic from ancient times that should be preserved in eco-museum type reserves. They can take advantage of harsh environments where corporate farms would not venture. They face up to and adapt to natural and anthropic changes such as

climate change or animal diseases, but also economic, social and political changes. But jointly, they maintain the organic links between the family as a social unit and the farm as an economic entity. They change, but they succeed in maintaining both a certain level of solidarity among the family members (and more widely with the local community) and the fungibility of productive and domestic assets. Here, the key factor is the prevalence of family labour and its flexibility, as described in the early 20th century by Chayanov (1990): under-payment and over-exploitation during hard periods and over-payment and possible accumulation during more favourable times.

Family farm transformations are diverse. Sometimes they result in the wide scale disappearance of one form and the emergence of another (the development of irrigation schemes in North Senegal on lands used by livestock grazing systems), with real bifurcations and a radical change in the agrarian system (from extensive root and tuber shifting cultivation to extensive cocoa production in South-West Côte d'Ivoire, see Ruf (1984)). Sometimes, the changes may be reversible – in the short and medium terms – and express specific forms of resilience with limited impacts in the global farming system. The 18 case studies enlighten these diverse pathways of transformation and adaptation.

In the short run, pluriactivity is often a way of coping with limited incomes from agriculture: temporary paid employment, craft production and petty trade or diverse service activities, within a local territory or through the mobility of one or more family members. In a generic sense, these adaptations show that family farmers' strategies do not only rely on agriculture but also include labour force mobility. Agriculture also plays a buffer role as illustrated by the Polish case, when family farms welcome urban members of the family facing periods of unemployment due to an industrial crisis (Chevalier, 2015). Movement of the labour force may be reversed, and many examples exist in rural history, in South-East Asia, in Africa, or in Latin America, of work force flows back to agriculture during low price periods in the mining sector, shocks in the tourism industry or political instability and wars. In specific places in Europe, some authors document that a neo-peasantry movement of marginalized people, or conversely workers disillusioned by their working environment, is developing around organic farming and short-circuit markets (Van Der Ploeg, 2014).

Long-term transformations are also diverse. The introduction of a new cash crop may modify the intra-family relationship, especially between elders and younger members, and between men and women. It may also lead to rapid youth emancipation and a radical change in the capacity of the family head to satisfy the family's growing social needs. In Burkina Faso, in Sahelian West Africa (Bainville, 2015), cotton has deeply changed the social conditions and profoundly impacted the sizes and shapes of families. Long-term or permanent mi-

gration of part of the family is another way of adjusting. It requires changes in labour force management and organization that results in complex and multi-localized systems of activity, balancing local and distant activities and transfers. Flows of cash, food, clothes, services and other material and symbolic goods, but also immaterial exchanges between local communities and distant places of emigration, are part of family farm functioning and strategies in the cases studied in Nicaragua (Freguin-Gresh, 2015), Ecuador (Vaillant, 2015), Mozambique (Mercandalli, 2015), Cameroon (Pédelahore, 2015) and Senegal (Hathie and Ba, 2015).

Land issues are also relevant drivers of transformation. Land tenure and land use changes impact short- and long-term strategies, as illustrated by transhumant-rearing dynamics in Benin (Droy and Bidou, 2015) and in Niger (Bonnet, 2015). Pressure on land leads to a reorganization of cattle movements. Family members' responsibilities, tasks and skills have to adapt to the new situation. Progress in education for the younger generation, and therefore the employment hopes and needs of the family work force, may be a structural change and a driver too. When investing in agriculture, well-educated young people have different views. They usually rely on their social and family network, as illustrated in Cameroon, and have smaller families (Cameroon and Brazil). In Brazil they tend to compensate the loss of family labour - due to the reduction in family size and urban migrations - by the development of labour-intensive practices (Da Souza Osmar et al., 2015). In Cameroon the situation depends on the local situation: family farms and solidarity ties in Obala maintains small holdings, while large scale holdings based on hired labour are in development in Talba (Pédelahore, 2015).

Demographic trends and their impacts on natural resource management, employment, and food and nutrition security are significant drivers of transformation. At the interface between the Malthus and Boserup theories, in the face of demographic pressure family farms seek to gain new production assets and means, intensify their practices, and/or migrate. The case studies in our book document these adaptations: Egypt (Daburon et al., 2015), Senegal, Burkina Faso, Mali (Soumare et al., 2015), Cameroon, Mozambique, Madagascar (Andriani-rina, 2015), or India (Landy, 2015). On the other hand, low demographic pressure combined with physical accumulation and growing labour productivity, can lead to a process of separation between domestic and productive assets. Consequently, farm transmission becomes problematic (South of Brazil, Da Souza Osmar et al., 2015).

More widely, it would be wrong to consider that family farms have an infinite capacity for transformation. Many family farms are in decline and many farmers remain poor and economically insecure. It is doubtful in most developing countries, especially in sub-Saharan Africa, that the same agricultural transformation as that experienced in developed countries could occur within the coming decades. The massive rural exodus of vanishing family farm-

ing in the classical industrialization pathway will certainly not happen yet. The conditions for such a mechanism do not exist and they may not be desirable given the impacts of such transformations. Nevertheless, family farms both in developing countries where they concentrate most of the labour force, and in developed countries where they are still responsible for landscape management and food production, are facing strong pressure. They will have to find new responses and solutions. We provide evidence that all around the world family farms are changing in diverse and multidimensional ways, but their fundamental traits, i.e. the organic link between the family and the farm, remains. Their future, which in itself is diverse and full of various opportunities, should be regarded taking into account these organic links.

5) What does the future hold for family farming?

In 2014, a year dedicated to the topic by the United Nations, the future of family farming mobilized part of the scientific community, international organizations such as the FAO and IFAD, civil society and, in particular, most of the organizations representative of family farming in different countries and at international level. Bringing this issue to the forefront of the international agenda was, by itself, a break with the dominant thinking of recent decades. Family farming, perceived as "small-scale farming", was considered above all as a category destined to become residual, lagging behind, and in decline, whose main function was to provide by using some of the assets needed by other sectors to grow, mainly land and labour especially for industrial and urban development. With others, and through this book, we strongly argue that family farming will continue to exist on a massive scale and its contributions are and will remain essential to the social, economic and environmental functioning of many countries.

While we are still far from reaching a consensus on these issues, the representations of many national and international political and economic actors in family farming have changed. Family farming could potentially provide answers to contemporary global challenges of food security, social and economic development and even for sustainable management of natural resources and the environment. If the disappearance of family farming is no longer an inescapable scenario, what might the future hold for the millions of family farmers settled in all the ecosystems of the planet?

So what might be the possible futures for family farming?

The first position would be to recognize that the future of family farming will depend on the policies to be defined and implemented in each country. Although the family character has its advantages, particularly in terms of efficiency and resilience, it cannot, on its own, respond to all the challenges faced by farmers, and more broadly by the societies they are part of. Farmers and their families are fully part of those societies and, as such, are legitimate in taking part in defining and implementing policies that enable them to respond effectively to contemporary challenges

Nevertheless, the capacity of family farmers' representatives is unequal across countries and, depending on the balance of powers, several scenarios can be identified. The first scenario would be a kind of business as usual policy, thus maintaining family farming under conditions more or less identical to those we all know today. The second scenario would favour the transformation of a limited share of family farmers into family business farmers. A third one would see the progressive disappearance of family farming without a capacity to retain youth from migrating to urban centres leaving behind the rural areas. All three scenarios would see the strengthening of corporate farming alongside a limited number of family business farms. Last but not least, a fourth one would see the strengthening of family farming through adequate and innovative policy support taking into account all the services provided by this model (environment and natural resource management, territorial dynamics and pluriactivity patterns). These different scenarios may well coincide in the same or in different spaces and, if not properly regulated, could lead to social unrest because resources become scarce and employment in agriculture remains the main option for many countries. Family farming represents a much more inclusive form of production than any other corporate or entrepreneurial form.

Family farming calls for specific policies, as experienced by many countries such as Brazil followed by a large group of Latin American countries, but also in India. Neither should it be forgotten that the agricultural successes of Western European countries, but also of Japan or the USA, are based on the success of their family farmers who continue to benefit from support policies. This may or may not imply political recognition of family farming as a category: for instance, it was not the case in France, but Brazil chose to define "family farming" as a policy target for support. In France, it has been largely implicit, and the recognition was collective through "The Syndicate", having a unique voice until the early 80s (FNSEA, 2010), which marked an opening up to a plurality of views (Martin, 2005).

The exploration of public policies for agriculture (Bélières et al., 2015) and the case studies of this book, call for coordinated sets of policies that go clearly beyond the conventional agricultural policies to address the complex nature of family farming:

- The family as a social entity requires public goods provision in rural areas to reduce the urban-rural divide in terms of the uneven distribution of public goods
- Family farming is an economic activity for which new models are still to be imagined and crafted according to local constraints and potentialities.

This also requires recognition of the multiple functions of farming, within regulated market conditions and outside the markets, the multi-localized nature of rural households characterized by their pluriactivity, their contribution to collective goods through collective action in natural resource management and in territorial development dynamics.

Lastly, these decisions to strengthen the capacities of family farming need to be supported by a public debate engaged in by all sectors of society and not only the agricultural sector, along with strategic debates about citizenship and rights, for example.

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