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MULTIFUNCTIONAL AGRICULTURE: CHALLENGES AND AVENUES FOR ITS DEVELOPMENT

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Abstract: *This paper identifies the challenges of local multifunctional agriculture and ways to develop it. A review of the relevant literature shows that the competitiveness and sustainability of farms are the main issues in adopting a multifunctional agricultural model. In addition, financial assistance granted to farmers by the local public authority in the form of flexible contracts, and the development of specific markets could well be the two credible economic instruments for financing such agriculture. The deployment of these instruments is constrained by the characteristics of externalities and/or public goods, recognised in the non-market functions of agriculture.*

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1. INTRODUCTION

The multifunctionality of agriculture (MFA) is a relatively recent concept that stems from the long-standing notion of 'amenities'. The term multifunctionality reflects the fact that agriculture generates benefits that go well beyond the production of food and raw materials, and which are often referred to as 'rural amenities' (Jean, 2000). This concept was formally introduced in 1992 and is one of the themes addressed in Agenda 21. It is mentioned at the same time as the concept of sustainable development, to which it is often wrongly assimilated. Be that as it may, multifunctionality, like sustainability, is assessed on three dimensions: economic, social and environmental. However, authors such as Lang (2001) add agronomic

and cultural functions to this notion, which are sometimes integrated into the economic and social dimensions.

Multifunctionality in agriculture is often understood in two ways (OECD, 2001). The first, known as positive, is the one often used by economists. In this, any production process generates, in addition to the main product, secondary non-market products which have positive (amenities) or negative (pollution) external effects on the well-being of the population. Multifunctionality is equated with positive external effects. Here, multifunctionality is not specific to agriculture, but is a characteristic of all economic activity. The second or normative meaning is the one adopted by politicians. This approach sets agriculture new objectives that correspond to the functions it must fulfil.

Alongside these two approaches, a third has developed, known as the integrated approach. This seeks to reconcile the two previous approaches in response to the traditional opposition that is often made (Van Huylenbroeck *et al.*, 2007). Several authors (e.g. Renting *et al.*, 2003; Van der Ploeg and Roep, 2003; Wilson, 2001) have studied this approach, which links supply (positive approach) and demand (normative approach).

Different from pluriactivity or diversification, MFA reflects the fact that each farmer must simultaneously fulfil economic, social and environmental functions, using his farm as the sole support. To do this, they must adopt responsible agro-ecological practices, which unfortunately depend on their motivation. The farmer's motivation to adopt one cultivation practice rather than another has two essential components (Bonnemaire, 1988). The psychosocial aspect focuses on the individual's point of view, influenced by the norms produced by society; while the technical-economic aspect focuses on production processes in an agro-ecological context, with constraints to which the farmer will be able to adapt to a greater or lesser extent.

If, as we have seen in the paper by Genang, (2017), the notion of MFA is strongly criticised and contested by certain countries (in particular the opponents of multifunctionality), what could be the reasons that, despite everything, lead other countries to develop multifunctional agriculture? How can they achieve this without infringing the free trade policy of the World Trade Organisation (WTO)?

Providing answers to these questions means analysing the challenges of multifunctional agriculture and identifying avenues for its development**.**

2. THE CHALLENGES OF MULTIFUNCTIONAL AGRICULTURE

One of the reasons why the multifunctional approach to agriculture is struggling to really take hold in both developed and developing countries is directly linked to the global trade policy negotiated within the WTO.

Within this organisation, the group of countries opposed to multifunctionality, which includes many developing countries, base their scepticism on the fact that the notion of MFA is being misused for purely protectionist purposes by some, and is being used as a pretext for direct support for agricultural production and prices by others. In fact, they are opposed to any direct payment of subsidies to producers in the name of support for multifunctionality, which will ultimately have distorting effects on trade. In their view, subsidies paid in this way undermine the free trade policy defended by the WTO (UQCN, 2002).

How can we blame them? When we know that international trade negotiations are like a political game in which interests must be protected and strategies developed to serve this aim. This category of countries sees multifunctionality as just another strategy used by the countries that support this approach to continue subsidising their agriculture in order to gain market share internationally and restrict access to their domestic markets. It should be noted, however, that most of the countries opposed to multifunctionality have comparative advantages in terms of unit production costs.

To satisfy the parties, the WTO decided to classify the aid granted to support the MFA in the category of aid that must not have any distorting effect on prices (green box aid). These subsidies must therefore be decoupled from food production. This means that they must not be used to boost agricultural production directly for purely commercial purposes (increased competitiveness), nor to support farmers' incomes, but only to finance the production of the necessary social and environmental amenities.

On this point, Barrio and Vounouki (2002) assert that *"a change of conception and mentality must be introduced once and for all: the support offered in the context of the green*

box is not compensation for any reduction in income, but payment by society to the agricultural sector for the production of a certain number of goods for which there is a market problem (low or zero payment, non-existence of a market, public good nature)". However, it is very difficult to fully decouple this aid from agricultural production as such, as recommended by the WTO. In fact, the amenities we want to support are produced in conjunction with agricultural commodities and are therefore linked (inseparable). In other words, supporting these amenities produced by farmers also means supporting agricultural production to a certain extent.

Be that as it may, despite their opposition, the defenders and detractors of the MFA nonetheless recognise that agriculture has considerations other than commercial ones that need to be preserved. In so doing, they are implicitly acknowledging that agriculture has not just a purely economic vocation, but much more than the productivist model can't unfortunately guarantee.

Speaking of the reasons justifying the development of multifunctional agriculture, it should be noted that, contrary to what is generally accepted, several empirical studies have shown that multifunctionality is not contrary to economic efficiency, but even reinforces it in certain cases (Van Huylenbroeck *et al.*, 2007; Van Huylenbroeck and Durand, 2003). In fact, multifunctionality enables farmers to seek out other market segments in which they have a comparative advantage, because of their encouraging socio-environmental results (this is the case, for example, with markets for organic and terroir products, or food products sold to agro-tourists). Genang *et al.* (2022), for example, found that the social functions of agriculture in contributing to food security and the social life of local populations had a significant positive influence on the economic performance of horticultural farms in Cameroon.

The second reason, which is part of the productive and socio-economic dimension, is that of securing food supplies, both quantitatively and qualitatively, in a context of regional, national and local self-sufficiency. This means preserving the existence of production potential, even if it cannot be used for competitive purposes (UQCN, 2002). Indeed, the specialisation inherited from the productivist model, which is based on absolute and comparative production advantages, is a risk factor for those who adopt it without taking the necessary precautionary measures.

Disruption of supplies or a food embargo on international markets are risks faced by most major oil-producing countries with little diversification, such as Chad, making them particularly vulnerable to commercial blackmail because of their over-dependence. It is therefore necessary to develop domestic agriculture, and to support it in the name of food security. However, even if some believe that the solution lies in diversifying supply sources (Aumand *et al.*, 1999), this does not solve the problem of high dependency. However, it is not a question of developing a productivist local agriculture that is totally disconnected from society's real expectations.

The third reason, linked to the social and cultural dimension, is that multifunctional agriculture helps to re-establish the link between agriculture and society (Parent, 2001), and to reconnect with local know-how. In fact, the productivist agricultural model that began in the mid-20th century, characterised by a quest for economic competitiveness at all costs, was sometimes accompanied by underdevelopment in certain rural areas far from major centres (Vachon and Coallier, 1993). This shows how disconnected such agriculture is from its social environment (Delgado *et al.*, 2003). The multifunctional agricultural model, on the other hand, re-establishes the link with society that existed in the past (in traditional agriculture) and goes further (Van Huylenbroeck *et al.*, 2007).

Multifunctionality constructs a new social contract between agriculture and its territory, through the recognition of "new" functions for agriculture (Parent, 2001). These functions include: maintaining and creating jobs; maintaining a social fabric in disadvantaged areas; occupying and revitalising territories; social cohesion between farmers (solidarity) and between farmers and other local players; preserving and promoting a cultural heritage (local know-how, local produce) and genetic heritage (local species); preserving the landscape; renewing and protecting natural resources (soil, water, air, biodiversity, etc.) and ecosystems.

Seen from a purely social and landscape angle, the MFA can be seen as a symbol of the quest for harmony between agricultural work, social life and the organisation of the countryside (Cayre *et al.*, 2004).

The fourth reason, related to the environmental dimension, is that multifunctional agriculture preserves natural and genetic resources and produces positive amenities (UQCN, 2002). The most significant criticism levelled at the productivist model is that it has serious

consequences for the environment. This model of agricultural intensification involves excessive use of agrochemical inputs (fertilisers, pesticides), which have a negative impact on biodiversity and natural resources such as surface and groundwater, air and soil. The degradation of these resources reduces their sustainability and, in turn, the sustainability of farming itself.

Multifunctional agriculture, on the other hand, involves agro-ecological farming practices that reduce the pressure of farming on natural resources (Waszkiel, 2002). In this type of agriculture, organic fertilisers (less polluting) are preferred to chemical fertilisers (highly polluting), biological pest control techniques replace phytosanitary products, water resources are used rationally, soils are maintained and subjected to a crop rotation system, crops are diversified, riparian strips are developed, farms are maintained and developed (farm buildings, water points, footpaths, shade points), etc. These practices result in environmental benefits such as improved soil, water and air quality, reduced soil erosion, preservation of biological and genetic diversity, construction and/or conservation of landscapes, preservation of certain natural habitats, improved pollination, etc. All these environmental services provided by multifunctional agricultural activity contribute to protecting the environment and renewing natural resources, which are essential to the sustainability of the activity and the survival of the human race. Multifunctionality is therefore a necessary condition for agricultural sustainability (Genang *et al.*, 2022).

For all these reasons, and in view of the enormous stakes that such an agricultural model represents for the present and the future, it is important to promote it at all territorial levels, in both developed and developing countries. All that remains is to develop such an approach in practical terms.

3. AVENUES FOR DEVELOPING MULTIFUNCTIONAL AGRICULTURE

Like sustainability, the development of multifunctional agriculture requires certain preconditions to be met. These are the population's attachment to its local agriculture and the farmers' responsibility and motivation. In most cases, the existence of multifunctional farming in a locality stems from the societal demands made by the local population on their agriculture. They attach a great deal of importance to the various roles that agriculture is

supposed to play and are strongly attached to their local values. Farmers are therefore forced to adopt such a model if they want above all to win the trust of the local population (by responding to the societal demands made of them).

Moreover, the formulation of a societal demand for agricultural activities is not enough to guarantee the development of multifunctional agriculture. Farmers also need to be responsible and have a real motivation for such farming. This last point is essential, given that many farmers in both developed and developing countries reject this type of agriculture, for the simple reason that they see no motivation in it (essentially economic) and are even worried about the consequences that such a model could have on their income (reduction).

There are two ways of guaranteeing the development and maintenance of multifunctional agriculture:

(i) The first method, which involves state intervention, is the most widely used and favoured by governments. It consists of a set of regulations and laws setting out the terms and conditions for granting aid or support for multifunctionality to eligible farmers. It is in fact a social contract (the CTE in France, for example) between farmers and the authorities, which involves farmers fulfilling a set of specifications defined in advance by the authorities (in consultation with civil society and farmers) in return for financial or material support for services rendered. All these measures form part of the agricultural policy defined by a government, which often takes the form of an agricultural orientation law (AOL), and which also provides for penalties for any offenders. These measures operate on the *bonus-malus* principle.

(ii) The second method, which is less widely used, is more of a market solution. It involves creating a specific local market on which certified products from multifunctional agriculture can be sold, following the example of the organic produce market (see Fig. 1).

The main advantage of this type of instrument is that civil society directly finances multifunctionality, which reduces the risk of misappropriation in the allocation of subsidies. Such a measure is also supported by Wunder *et al.* (2008), who see it as an alternative to payments for environmental services (PES) financed by government programmes. Madelin

(1994) was already of the same opinion when she stated that *"the environmental services of agriculture should be remunerated directly by the users whenever possible..."*.

In addition, the operation of such a market will enable the development of certification companies (see Figure 1). It will also enable local authorities to make savings while achieving their sectoral and even territorial sustainability objectives. However, they will have to focus on the task of checking the conformity of products and certificates, which unfortunately entails significant transaction costs.

In any case, whether it is the first or the second means of developing multifunctional agriculture, they all generate transaction costs. The question is therefore: which of the two minimises these transaction costs and/or is the most effective in achieving the objectives?

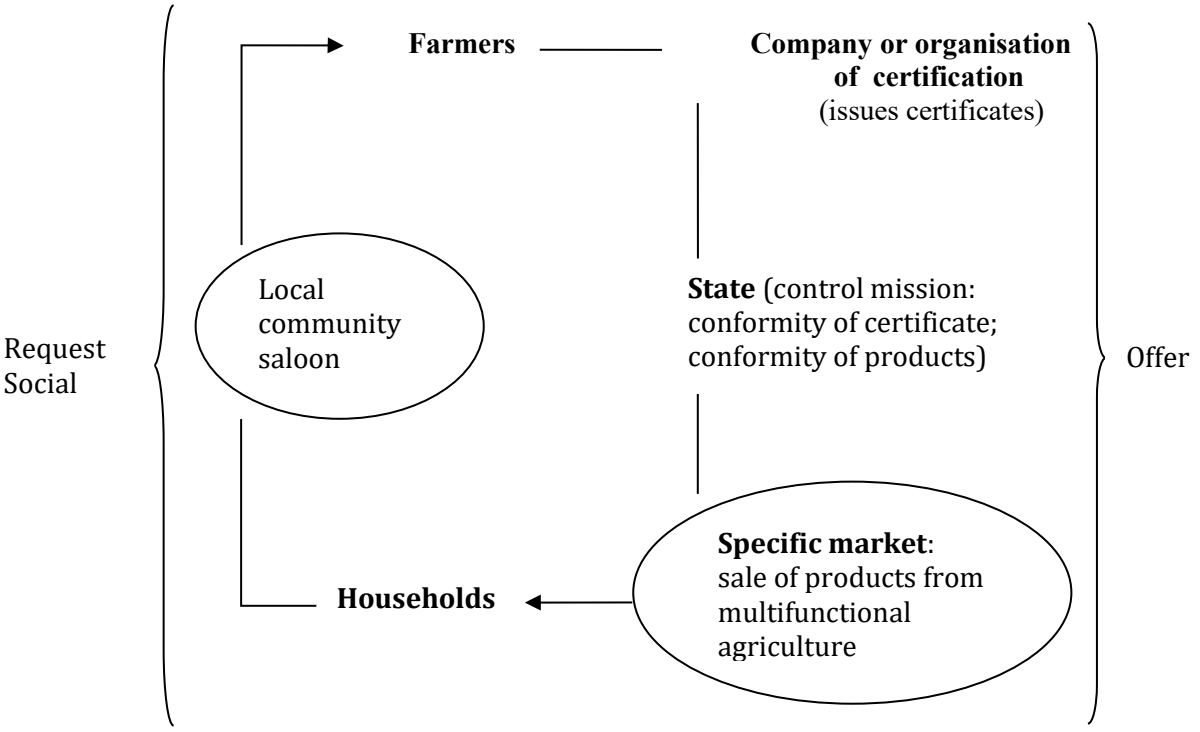

Fig. 1- Specific market mechanism

Source: Author

CONCLUSIONS

This paper presents the paradigm of multifunctional agricultural development, analyses the issues involved and identifies the instruments that local authorities can use to develop this agricultural model. It emerged that multifunctional agriculture could reconcile economic competitiveness with sustainability, which is often seen as contradictory. Local authorities can therefore use both mechanisms to support multifunctionality, but should favour the market mechanism, which is less distorting of the principle of free trade.

CONFLICTS OF INTEREST AND PLAGIARISM

The author declares no conflict of interest and plagiarism.

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