

Forest Owners' Organizations in Portugal: Are the infant going to survive?

Américo M. S. Carvalho Mendes¹

ABSTRACT

In a country where 93.4% of the forest land is privately owned and often fragmented in small scale holdings, one of the major recent structural changes has been the emergence of forest owners' organizations during the 90's. For the most part, their start up was not directly supported by a specific forest policy, even though it was related to changes in this policy and benefited from public incentives.

It is an intriguing issue why, for so long, Portuguese forest policy has not given appropriate attention to small scale private forestry, especially through adequate support to the start up and development of forest owners' organizations. The first part of this paper proposes some explanatory hypotheses for this fact.

The second part deals with the challenges these organizations are currently facing, in a situation where some policy reforms are undertaken in response to the magnitude forest fires, especially since 2003. One of these reforms was the creation of a Forest Fund financed by part of the tax on fuels. This fund could have been a very important source of support for these infant organizations, paying for the public goods they are aimed to

provide. Some of the money coming from this fund is going in this direction. However, this is done in the absence of appropriate mechanisms to cope with inefficiencies in its uses. Also a substantial part of the Fund is deviated to the municipalities also in ways that may conflict with the development of the collective organization of forest owners. If appropriate measures are not taken to cope with these problems this associative movement may be at risk.

1. HIGH SALIENCY OF PRIVATE FORESTRY IN REALITY, BUT NOT IN FOREST POLICY

Portugal is one of the countries in the world with the highest share of private ownership in total area of forest land: 93.4% in 1995. Communal forests represent 5.4% and State owned forests only 1.2%.

As data in Table 1 show, this is not a recent phenomenon. The situation was already like this at the end of the first quarter of the XXth century. Even though we cannot find quantitative data for an earlier period, the reality was probably the same in the XIXth century when the Forest Services were created.

TABLE 1: Distribution of the area of forests and other wooded land by types of ownership (ha)

Types of owners	1928		1959		1974/82		1995	
	Area	%	Area	%	Area	%	Area	%
State forests	53662	2,3	58000	2,0	78000	2,6	40000	1,2
Communal forests	55954	2,4	145000	5,0	380000	12,4	180000	5,4
Private forests	2221824	95,3	2697000	93,0	2598000	85,0	3129000	93,4
TOTAL	2331400	100,0	2900000	100,0	3056000	100,0	3349000	100,0

Source: Mendes et al. (2004)

¹ Faculty of Economics and Management, Portuguese Catholic University, Rua Diogo Botelho, 1327, 4169-005 Porto – Portugal. Email: amendes@porto.ucp.pt

TABLE 2: Area of forests and other wooded land by types of ownership and tree species in 1995 (1000 ha)

Types of owners	Total		Maritime pine		Eucalyptus		Cork oak		Other forests and wooded land	
	Area	%	Area	%	Area	%	Area	%	Area	%
State forests	40	1,2	27	2,8	0	0,0	2	0,3	11	1,1
Communal forests	180	5,4	116	11,9	14	2,1	1	0,1	49	5,0
NIPF	2910	86,9	822	84,2	470	69,9	690	96,8	928	93,9
Forest industries	219	6,5	11	1,1	188	28,0	20	2,8	0	0,0
TOTAL	3349	100,0	976	100,0	672	100,0	713	100,0	988	100,0

Source: Mendes et al. (2004)

TABLE 3: Area of forests and other wooded land by type of ownership and regions in 1995 (ha)

Regions	Total	Private forest land	%	State owned forest land	%	Communal forests	%
North West	352263	302484	85,9	133	0,0	49646	14,1
North East	315154	223277	70,5	0	0,0	92877	29,5
Other regions	2681583	2603239	97,1	39867	1,5	37477	1,4
TOTAL	3349000	3129000	93,4	40000	1,2	180000	5,4

Source: Mendes et al. (2004)

TABLE 4: Size classes distribution of forest holdings, by regions, in Continental Portugal, in 1995

Regions		Distribution by classes of forest land size (%)						Total
		0-4 ha	5-9 ha	10-19 ha	20-49 ha	50-99 ha	100 ha and more	
North West	Number of holdings	89,7	6,4	2,2	1,2	0,2	0,3	100,0
	Forest land	34,4	13,6	9,0	10,2	4,1	28,7	100,0
North East	Number of holdings	90,6	6,6	2,2	0,4	0,1	0,1	100,0
	Forest land	53,7	19,9	13,2	5,4	3,4	4,4	100,0
Central West	Number of holdings	91,5	5,8	1,7	0,8	0,1	0,1	100,0
	Forest land	53,1	18,4	10,7	10,8	2,4	4,6	100,0
Central East	Number of holdings	73,1	14,3	7,3	3,9	0,7	0,7	100,0
	Forest land	18,1	13,8	14,1	15,3	5,9	32,8	100,0
Ribatejo & West	Number of holdings	84,8	6,5	3,6	2,5	1,1	1,5	100,0
	Forest land	8,3	3,8	4,1	6,6	6,7	70,5	100,0
Alentejo	Number of holdings	23,8	12,0	15,6	14,9	11,3	22,4	100,0
	Forest land	0,5	0,9	2,5	5,4	9,2	81,5	100,0
Algarve	Number of holdings	58,9	14,2	11,6	9,5	3,5	2,3	100,0
	Forest land	7,5	7,5	12,5	23,2	17,9	31,4	100,0
Total	Number of holdings	85	8	3	2	1	1	100,0
	Forest land	15	7	7	9	7	55	100,0

Source: INE (1997)

There are no quantitative data available about the size distribution of forest ownership, and there are very few available about the size distribution of forest holdings. These data refer to 1995 and is presented in Table 4. They clearly show the regionally contrasting situation, in Continental Portugal, concerning forest ownership:

- the Northern and Central regions are the home of small scale forestry, with about one half or more of the forest land in holdings up to 10 ha;
- in the southern regions (Ribatejo & West, Alentejo and Algarve) especially in Alentejo, forest holdings are mostly above 100 ha.

This regional differentiation in land ownership distribution in Continental Portugal is also very old. This regional differentiation is combined with another one in terms of tree species composition of forests. As data in Table 5 show, maritime pine is located mostly in the Northern and Central regions, whereas cork oak is in the Southern regions. Eucalyptus has been planted in the western regions, both in the North and in the South, in some cases substituting for the pine forests that have been destroyed by forest fires.

Considering especially the Northern and Central regions, their forests are under threat of damage by forest fires since the process of decline in rural population started in the beginning of the 1950s. Given the small scale of forestry in those regions, such threat cannot be coped with effectively without a very strong movement of collective organization of private forest owners.

The reality of forest policy since the Forest Services were created at the beginning of the

XIXth is that the main challenges that private forestry has been facing since then have not been on the top of the priorities of the forest policy for which that agency was created (Mendes, 2005b; Mendes et al., 2004). This situation started to change only very recently, but we haven't reached yet a point where that priority has been fully and appropriately addressed.

2. SOME HYPOTHESES ABOUT THE LOW SUPPORT TO THE ASSOCIATIVE ORGANIZATION OF FOREST OWNERS IN PORTUGUESE FOREST POLICY

2.1. Reasons pertaining to the Forest Services

Part of the reasons for the low support to the associative organization of forest owners in Portuguese forest policy until recent years may have to do with the nature of the Forest Services. This agency was created in 1824 with the mission of protecting and managing the Crown forests. As a very good case of "path dependence", throughout most of its life, this agency remained very attached to a model of forest management possibly adequate to public forests, but ineffective to deal with the realities of private forests.

When this agency extended its mission beyond the intervention in the State owned forests, the kind of domain they looked for were the communal lands belonging to local population in the hilly

TABLE 5: Regional distribution of forests by tree species composition in Continental Portugal

		NW	NE	CW	CE	R&W	Alentejo	Algarve	TOTAL
Maritime pine	1000 ha in 1995	138,9	120,4	350,7	246,2	111,4	55,3	6,3	1029,2
	% variation 68/78-95	-49,5	5,7	-24,8	-5,3	-21,5	77,3	43,0	-20,4
Eucalyptus	1000 ha in 1995	139,2	12,3	156,0	76,8	152,9	125,8	32,1	695,1
	% variation 68/78-95	495,2	1315,4	181,4	460,2	122,7	206,6	202,7	225,2
Cork oak	1000 ha in 1995	0	23,9	0,1	27,5	149,9	479,0	40,3	720,7
	% variation 68/78-95	-100,0	33,6	-56,5	10,8	-10,5	14,2	52,8	9,8
TOTAL	1000 ha in 1995	345,9	312,7	561,3	432,0	457,4	1139,3	110,2	3358,8
	% variation 68/78-95	1,3	41,0	3,4	13,7	12,9	12,2	76,1	13,2

Source: Direção Geral dos Recursos Florestais (data updated in the web site on September 30, 1999)

areas of Northern and Central Portugal. The kind of afforestation and forest management carried out there under the direct intervention of the Forest Services, especially since the 1930s until the 1970s, was as if those forests were owned by the State.

After this period, in the 1980s, when some external sources of funds (World Bank before the EEC accession and the EEC structural funds after that) became available, the Forest Services finally made a move towards incentives to private forestry in a large scale. In the programme funded by the World Bank (1981-88) there was still a component of direct intervention by the Forest Services: they were responsible for preparing the plans and doing the afforestation works in some of the private lands (the rest was afforested by one pulp and paper company funded by this programme), being repaid for this later on, by the owners, through the proceeds of the sales of the timber coming out from these plantations. In the next programme which was co-funded by the EEC (PAF-Programa de Acção Florestal, 1987-95), they abandoned this form of intervention and stucked only to the provision of financial incentives.

In these two programmes there were funds available for the creation of a public forest extension service. In the two cases nothing was done. Even if it may not have been the only reason for this failure, the difficulty to change the old culture of the institution more oriented to the management of public forests was very likely part of the causes for that (Mendes, 2005a; Mendes et al., 2004).

2.2. Reasons pertaining to the profession of forester

During most of the life the Forest Services until now, forest engineers have been the leading and, often, exclusive profession in charge of this agency. They have also had a leading role in the technical staff of the most influential forest industry in the country, that is, the pulp and paper companies.

One relevant feature in the education of these professionals is that the schools where they were trained gave no room, or a minimal room, in their

curricula to social sciences, forest policy and forest extension. This is probably the reason why many of them tend to see the problems of forestry and their solutions essentially in terms of silvicultural or industrial technologies, without paying due attention to socioeconomic aspects.

2.3. Reasons pertaining to the political system

During most of the life of the Forest Services, Portugal lived under non democratic political regimes. These regimes, especially the one that was overthrown in 1974, did not favour, and were even actively against the free collective organization of rural people. In these circumstances as part of the Public Administration of this kind of regimes, the Forest Services were not active in promoting that kind of organization among private forest owners. It was only some years after the institution of democracy that things started to change.

2.4. Reasons pertaining to the private forest owners

Collective organization of forest owners totally spontaneous and with no external support is very difficult to happen. In the Southern part of the country, because many forest owners have large forest estates, they don't feel very much the need to organize collectively. Historically landowners from this part of the country have been a very influential group in forest and other rural policies.

In the Northern and Central regions, because forestry is of small scale, collective organization of forest owners is more needed, but it faces very high transaction costs. For forest owners with very small holdings those costs are far above what they may gain by getting collectively organized. For those with larger holdings these costs are still high, but a good number of them can cope with them if they get some external support, financial and in kind (technical support). The problem is that, for many years, this kind of support has not been available. When it finally came, even if it was not completely adequate to their needs, they started to respond positively.

2.5. Reasons pertaining to the forest industries

Forest industries in the three main segments of the Portuguese forest sector (pine, eucalyptus and cork oak) have not been very active in promoting the collective organization of private forest owners. One reason for this is obvious, since that would have increasing the market power of those to whom they have to buy the main input of their activities.

However, they are now becoming more and more concerned by the need for that kind of organization due the following reasons:

- a) the pressure for certification of their products in the international markets;
- b) the risk of shortage in timber and cork due to the damages caused by forest fires.

To these reasons there is another one that should be added concerning more specifically the pulp and paper industries. As was said before, they have been an influential interest group in Portuguese forest policy. So they could have played an important role in fostering policies favourable to the associative organization of private forestry, if they wanted to. One reason they haven't done so in the past, besides the ones already mentioned, is that it was possible to establish a good part of the eucalyptus plantations in the Southern part of the country where landownership is less fragmented. So this industry has had closer ties to the landowners from that part of the country, than with the interests of the Northern and Central regions. However, this situation is starting to change for reasons which include not only the ones mentioned above (certification and fires), but also for another one. The new reason is that, in the Southern regions, the eucalyptus plantations have reached the higher limit of their physical productivity. Since the expansion of these plantation in terms of area is restricted, if the industry needs to increase the supply of pulpwood it has no choice other than paying more attention to the Northern and Central regions where current productivities are often below one half of what they could be with more intensive management. Realistically this cannot be done without going through some forms of collective organization of forest owners.

3. TRIGGERING AND SUPPORTING FACTORS OF FOREST OWNERS' ORGANIZATIONS START UP AND GROWTH IN PORTUGAL

3.1 Triggering factors

Possibly for the reasons presented in the previous section, forest owners' organizations in Portugal got started relatively late, more precisely only in the 1990s. The two main triggering factors for this may have been the following:

- a) the programmes co-funded by the EEC providing generous financial incentives for the afforestation, reforestation and the improvement of existing stands;
- b) the increasing risk of forest fires.

The reasons why these events may have played a triggering role in the start up of forest owners' organizations are the following:

- a) to apply for financial incentives the forest owners had to fill in applications and present a forest management plan for which they needed technical support;
- b) once the application was delivered they needed further support for the often complicated contacts with the public agencies in charge of reviewing them;
- c) also, once the grant was approved, the forest owners continue to need technical support for the hiring and supervision of the contractor doing the forestry works;
- d) the Forest Services were incapable of providing this kind of support not only for the reasons presented before, but also because they were involved in the process of reviewing and monitoring these applications;
- e) since substantial incentives to private forestry were a new thing in the country, the private supply of these kinds of services was insufficient in many places, or didn't inspire enough trust by the forest owners;
- f) finally, more and more forest owners wanted to reduce the risk of fires in their forests by carrying out preventive silvicultural works and by motivating their neighbours to the same;
- g) also here the private costs of hiring personnel for doing this kind of job were high.

Possibly for these reasons, private forest owners, especially those with a medium sized forest estate, became more and more open to join an association, once some small group among themselves, in a totally spontaneous way or with some external push, decided to move ahead in that direction. Also possibly for the reasons presented above, most of the associations that got started in this way oriented their activities mostly for the provision of technical support to their members in their application for public financial incentives to forestry. The group of forest owners that were more willing to demand this kind of support were not the ones with very small holdings, nor the ones with large holdings, but the ones in the middle range of holding sizes. Since this group can be found more often in the Northern and Central regions, it is possibly the reason why the associative movement spread more rapidly in that part of the country, as data presented in table 6 show.

In a recent document, the Forest Services (DGRF-Direcção Geral dos Recursos Florestais) updated the total number of organizations as it appears in Table 7. Part of the differences in the two tables may be due to the fact that data in Table 6 does not include the organizations representing the communal forests, as is the case of data in Table 7.

In their by-laws these local organizations cover territories that, all together, embrace almost all the forest land existing in the country. However, this doesn't mean that they already got the membership of all the forest owners with holdings in their territory of action. So, after a period of growth in terms of number of associations, the time is coming for stabilization and consolidation of this kind of growth and for increasing the membership of each of the existing associations.

3.2. Supporting factors

3.2.1 The role of federative organizations

A) Overview

According to the Forest Strategy document recently put out for public discussion by the Forest Services, the current number of forest producers' organizations is distributed by affiliation to a national federative organization as it appears in Table 8.

These data show that half of the existing associations have an affiliation to one of the three federative organizations which are disputing representativeness in this domain:

TABLE 6: Number of local forest owners' organizations by regions and by years

Years	Regions							Total
	NW	NE	CW	CE	R & W	Alentejo	Algarve	
1977	1	1	9	1	4	3	0	19
1998	12	6	13	14	8	6	6	65
1999	13	40	15	20	10	4	6	108
2000	15	40	19	24	10	6	6	120
2002	21	25	28	28	11	8	6	127
2004	21	24	28	33	12	9	6	133

Source: Direcção Geral dos Recursos Florestais

TABLE 7: Total number of local forest producers' organizations as it appears in the Forest Strategy document

Year	Number
1977	26
1998	75
2002	137
2004	148
2005	170

Source: Direcção Geral dos Recursos Florestais (2006)

TABLE 8: Distribution of the number of forest producers' organizations by affiliation

		Number of affiliated forest producers' organizations
Confederations	CAP	5
	CONFAGRI	2
	CAN	1
Federations	FENAFLORESTA	11
	FENAFLORESTA/FORESTIS	1
	FENAFLORESTA/PPFP	1
	FORESTIS	27
	PPFP	30
	BALADI	9
Sub-total		87
Non affiliated		86
TOTAL		173

Source: Direção Geral dos Recursos Florestais (2006)

- a) FORESTIS – Associação Florestal de Portugal;
 b) PPFP – Federação dos Produtores Florestais de Portugal affiliated with CAP – Confederação da Agricultura Portuguesa;
 c) FENAFLORESTA – Federação das Cooperativas de Produtores Florestais affiliated with CONFAGRI – Confederação das Cooperativas Agrícolas e do Crédito Agrícola de Portugal;
 d) BALADI - Federação dos Secretariados dos Baldios affiliated with CNA – Confederação Nacional da Agricultura.

Table 9 presents the distribution of the forest owners' organizations by type of legal status. The organizations with statutes under the Civil Code ("associations") predominate by far. Cooperatives were only 31 out of 130, in January 2002.

What these data reveal is that most of these organizations were created independently from the three national organizations disputing the representativeness of farmers and forest owners:

- a) CAP;

- b) CONFAGRI;
 c) CNA.

86 organizations have no affiliation with a federation and 27 are affiliated with FORESTIS which is independent from those three confederations. FORESTIS was created in 1992 by a group of people independent from those confederations, with the purpose of creating local forest owners' organizations initially in the northern and central regions, and later on in the rest of the country. Because of several cases of mismanagement in farmers' cooperatives, the denomination "cooperative" was not attractive for some of the potential members to be attracted to these new organizations. For others with more conservative ideas, the word "cooperative" had a leftist connotation. Therefore, "association" was a better denomination. Also, an association was a much more flexible legal status, regulated by the simple rules of the Civil Code. An association can be very easily created, with a relatively few number of initial members, and very small initial capital. It can also be very easily shut down, if

TABLE 9: Forest owners' organizations by type of activities and legal status

Activities	Forestry		Agriculture and forestry		TOTAL
	Associations	Cooperatives	Associations	Cooperatives	
2000	73	3	22	10	110
2002	71	5	28	26	130

Source: DGRF

things go wrong, without charges impending on the members and directors. It does not have the same tax benefits as a cooperative, but this is not a problem in the initial years of activity of this kind of organizations when the provision of taxable commercial services is not important yet.

In the southern regions where large scale forestry is predominant, most of the existing associations have a different origin. They were promoted and are currently affiliated with FPPF which is a member of CAP.

FENAFLORESTA, the federation affiliated with the confederation of farmers' cooperatives, is the late comer to this group since it was established only in July 2000. Its creation was triggered by the implementation of a Forest Advisory Council in the Ministry of Agriculture whose composition was a matter of heated discussion among these national organization disputing the representation of farmers and forest owners.

B) Forest owners' organizations affiliated with FORESTIS

The large majority of forest owners' organizations affiliated with FORESTIS has the legal status of an association, under the rules do the Civil Code. They are located mostly in the Northern and Central regions where small scale forestry is predominant. Besides these characteristics, there are others deserving to be mentioned for this group of organizations. One has to do with their territory. The ones whose creation was directly promoted by FORESTIS cover an area corresponding to what once was designated in the territorial administration of the country as a "grouping of municipalities" (*agrupamento de municípios*). This is a territory made up of several contiguous municipalities (usually 5 or 6), with some homogeneity in terms of natural and socio-economic conditions. Experience has proved that this may be an efficient scale for the provision of most of the services these organizations deal with.

Another interesting feature of this group of organizations has to do with networking. One form of networking consists in meetings held on a relatively regular basis between the foresters working in the organizations affiliated with

FORESTIS. These meetings have been a useful means to share experiences and information and to prepare common projects. On a less regular basis, but whenever it is necessary, there are also meetings of the board of FORESTIS with the boards of the affiliated organizations, besides the formal and statutory general assemblies.

C) Forest owners' organizations affiliated with FPPF

The forest owners' organizations affiliated with FPPF don't have the same type of homogeneity, in terms of territorial basis, and the same type of networking mechanisms as the ones affiliated with FORESTIS. As was mentioned in the previous section, FPPF is a federation of forest owners' organizations which came out of CAP. The strongholds of this confederation are in the southern regions where large scale farming and forestry are predominant.

Since FPPF has been eager to claim the representativeness of most of the forest owners in the country, it tends to included in its membership different sorts of local organizations, some of which are mostly in the agricultural sector.

D) Forest owners' organizations affiliated with FENAFLORESTA

The forest owners' organizations affiliated with FENAFLORESTA, the forestry federation created by the confederation of agricultural cooperatives, includes organizations with the legal status of cooperatives. In many cases, these are forestry sections of existing agricultural cooperatives and their territorial basis does not go much beyond the limits of the municipality corresponding to the agricultural cooperative which they belong to.

3.2.2 Public funding of forest owners' organizations

A) Situation during the 1980s

As was said before, forest owners' organizations emerged in the 1990s probably in response to the demand of forest owners for the technical

assistance they needed in order to apply for the financial incentives available in EU co-funded afforestation programmes which started to be implemented in 1987. The first of these programmes (PAF-Programa de Acção Florestal), as well as another one which was implemented from 1981 to 1988 with World Bank funding, provided financing for the establishing of forest owners' cooperatives, assisted by a public forest extension service also to be established with these funds. In both programmes there was no implementation of these two components. Coming from a secular tradition of direct intervention of forestry and almost total neglect of the need for the collective organisation of private forestry, the Forest Services lacked the expertise and the will to implement those measures (Mendes, 2005a, 2005b).

Since PAF introduced a major change in forest policy by providing generous incentives for afforestation to private forest owners, leaving entirely to them the initiative to apply for those incentives and to mobilize all the necessary technical assistance for that, this situation benefited the forest owners with larger holdings who could afford to pay for that kind of assistance. Gradually the forest owners' organizations started to appear in order to respond to that demand, but this did not happen until the early 1990s. So, during the 1980s, there was a need for the establishment of forest owners' organizations, and there were public funds available for that, but the Forest Services in charge of using them lacked the expertise and the will to do so.

B) Public incentives during the 1st Common Support Framework (1989-93)

Most of the public support to forest owners' organizations during the 90s was provided by programmes included in the Common Support Framework (CSF) regulating the transfers of EU structural funds since Portugal's accession:

- the 1st CSF, which ran from 1989 to 1993;
- the 2nd CSF, which ran from 1993 to 1999;
- the 3rd CSF, which started in the year 2000 to last until 2006.

In the 1st CSF there was a programme called PROAGRI designed and managed by the Ministry

of Agriculture supporting the installation of farmers' organizations, mainly through matching grants for investment and operating costs lasting for 5 years. These grants supported the creation or development of 132 organizations, but only one of these was a forest owners' association (Costa, 2002). This association was located in the Ribatejo & Oeste region.

Others that got started during this period, namely FORESTIS and the first local associations created with the technical support of this organisation, were funded by programmes for regional development, not managed by the Ministry of Agriculture, but by the regional commission of the Ministry of Territorial Administration for the Northern Portugal. These programmes normally paid about 75% of the installation and operating costs of these organizations during the horizon of the programmes (1989-93 and 1994-99).

The main conclusion we can state for this period again is a lack of capacity or will from the Public Administration in charge of forestry (Ministry of Agriculture) in terms of promoting and supporting the take off of forest owners' organizations with specific incentives especially tailored to their needs. These organizations started to develop in this period, but they had to look for public support somewhere else.

C) Public incentives during the 2nd Common Support Framework (1994-99)

The PROAGRI programme continued throughout the 2nd CSF, but with less favourable grants than in the previous CSF. In fact, after 1996, by imposition of the European Commission, a modulation was introduced in the matching grants supporting personnel costs going from 85% of those costs in the 1st year, to 35% in the 5th year.

Even though this programme, like the previous one, did not include any special provisions for forest owners' organizations, the demand for funds from this type of organizations finally got started with 39 new or existing organizations supported by the programme. As we can see in the following table, one of the major players in this rise of the forest owners' organisation movement in this

period is FORESTIS. In fact, 24 out of the 39 forest organizations supported by PROAGRI during this period were from the Northern and Central West regions where FORESTIS has been more active. So, in brief, we can say that this 2nd CSF, through PROAGRI, played an important role in supporting the take off of the local forest owners' organizations in the regions of small-scale forestry, even though this programme was designed for the farmers' organizations and not specially tailored for forest owners' organizations.

D) Public incentives during the 3rd Common Support Framework (2000-06)

In the 3rd CSF there is finally a special programme to support forest owners' organizations in two ways:

- a) support for the creation of new organizations;
- b) support for the creation of extensions of existing organizations, in other locations of their territory, outside their headquarters in order to improve their outreach to the forest owners.

As in previous programmes, the support takes the form of 5 years modulated matching grants:

- 100% of the personnel and operating costs in the 1st year declining gradually until 60% in the 5th year;
- 85% of the investment costs.

Until the month of May 2002, the number of applications approved for this programme reached 74, which shows a substantial increase, compared to the previous programme. Again the regions of small-scale forestry have been the most active in this process, in terms of number of applications. One interesting conclusion we can draw from Table 11 is the following:

- in the North-western region, the current generation of applications for funds is mostly for extensions of the associations created during the 2nd CSF;
- in the Central region, the current programme is mostly for the creation of new organizations.

So the movement of creation of forest owners' organizations in the regions of small scale forestry originated in North-western Portugal during the period of the 2nd CSF, mostly through the action of FORESTIS and is now moving southwards.

E) Other incentive schemes for forest owners' organizations since 1999 until the big fires of 2003

Besides this incentive scheme, there is another worth to be mentioned for this period. It was established by a governmental decree of 1999 and has been financed entirely with national public funds, outside the framework of the EU co-funded programmes. Its aim is to support the installation and operating costs of brigades of forest sappers composed of 5 persons each, which are supposed to

TABLE 10: Forest owners' organizations supported by PROAGRI during the 2nd Common Support Framework (1994-99)

Regions	Cooperatives		Associations		Other forest organizations	TOTAL
	Forestry	Agriculture & Forestry	Forestry	Agriculture & Forestry		
NW		1	9		2	12
NE		1	5			6
CW	1	1	3	1		6
CE		1	5	1		7
Ribatejo & W			2		2	4
Alentejo			3			3
Algarve			1			1
TOTAL	1	4	28	2	4	39

Source: Costa (2002)

TABLE 11: Applications approved or for approval for funding by the 3rd CSF in May 2002

Regions	Continuation of support from the PROAGRI programme	Creation of new organizations	Creation of a forestry section in an existing cooperative	Creation of an extension in an existing association	TOTAL
NW	9	3	2	8	22
NE	1	5	2	2	10
CW	2	12	3		17
CE	2	10	2	1	15
Ribatejo & W		2			2
Alentejo		2		3	5
Algarve	1	2			3
TOTAL	15	36	9	14	74

Source: Costa (2002)

carry missions of surveillance and first intervention in the extinction of forest fires, during the Summer, and silvicultural works reducing the risk of fires during the rest of the year. The State budget pays about 75% of the labour costs for a period of 5 years, accompanied with a support in kind in terms of a 4WD vehicle and some other equipment whose maintenance is then left to the participating organizations.

A good number of forest owners' organizations participated in this programme by applying for one or more brigades. The problem is that some of them did not manage to get the co-funding necessary to match the public financial support. Considering the total operating costs of one brigade, the public financial support does not cover more than half of the costs. So if these brigades don't provide services for which it makes sense to collect a payment from the forest owners, or if the forest owners' organizations in charge of these brigades don't establish partnerships with municipalities or other institutions to cover for the necessary matching funds, these brigades are not financially sustainable. An additional problem is the fact, that for several times, there were long delays in the payments of the public aids which put many forest owners' organizations under very serious financial stress. The result if this was that some of them dropped out from the programme. The ones that managed to continue fall mostly in two categories:

- they have a stable partnership with some municipalities to cover for the matching funds;
- during part of the year, they put the brigades to

the direct service of their members who want silvicultural works done in their forests in order to reduce the risk of fire and who are willing to pay for that.

F) Overall assessment of the public funding of forest owners' organizations

Without the support of public incentives, forest owners' organizations probably would not had taken off in Portugal, even though the incentives they initially got were not specially tailored to their needs. This situation improved a little bit, but through the addition of a diversity of schemes targeting very specific actions, with different procedural rules and not very flexible in the way the forest owners' organizations can adjust the public support to their real needs. The result is that they have to bear relatively high transaction costs to obtain those incentives which are essential to their survival. Mostly of them depend on those incentives to pay for 2/3 to 3/4 or more of their costs. This is a justifiable rate of public support given the fact that in the primary functions of these organizations there is a great deal of provision of services with a public goods nature. Also the cases of good practice in terms of use of public incentives show that these organizations can gradually reduce the dependence on public incentives up to the range between 1/2 and 2/3 of their total operating costs, but it is very hard to go beyond that in the current stage of their development. Also the experience show that they

would very much benefited if the set of public incentives were consolidated in a single programme, with enough flexibility in its eligibility conditions to accommodate the different needs of these organizations at each stage if their development, without the very specific constraints they actually impose on them.

3.2.3. Services provided by the forest owners' organizations

A) Types of services delivered

The existing forest owners' organizations deliver services which can be classified as follows:

- a) **club goods** (excludable and non rival):
 - representation of the collective interests of their members;
 - preparatory work for the implementation of certification schemes;
- b) **public goods** (non excludable and non rival):
 - raising society's awareness for the importance of forest public goods;
 - diffusion of information among their members and also among the rest of the population relevant for forest development;
 - increasing provision of forest environmental services and other forest public goods by better management of the forest holdings of their members;
- b) **private services** (excludable and rival):
 - technical advice;
 - preparation of forest management plans;
 - preparation of applications for public financial incentives and support in the contacts with the public agencies in charge of reviewing and monitoring the applications;
 - hiring and monitoring of forest contractors to carry out afforestation and forest management works in the holdings of their members;
 - silvicultural works reducing the risk of forest fires carried out by brigades of fire sappers.

In the case of these private services forest owners' organizations are responding to some market failures:

- filling in an inexistant supply of services with a supply at prices low enough that the forest

owners can afford to pay, especially in a domain where there are significant externalities (prevention of forest fires);

- coping with asymmetric information problems, namely in the deals between forest owners and the forest contractors or the public administration.

Finally there are three more areas where the existing forest owners' organizations are absent:

- harvesting of forest products;
- marketing of forest products;
- forest industries.

Harvesting of forest products is an activity for which there is a supply from private contractors. It is also an activity requiring equipment for which the forest owners' organizations don't have the necessary financial means. In this context, the position of most of the forest owners' organizations has been to stay away from these activities, and simply assisting their members in terms of advising them about the fair prices for their products and in scaling the amount of forest products they are willing to sell.

The same thing happens with the marketing of forest products. This is an activity often organized in terms of spatial oligopsonies held by merchants who are capable of making the life very hard to those who want to jump into their business.

Holding shares in forest industries or even holding the full ownership of this kind of firms is also very far away from the capacities of the existing forest owners' organizations. To our knowledge there is one case where one of these organizations tried to invest downstream, in an industrial activity. It is the case of an association grouping a relatively small number of large cork producers in the southern part of the country. This organisation invested in the establishment of a cork plank factory. The project did not stay very long in the only hands of the cork producers. The company ended up being sold to a foreign group with interests in the cork business until being finally bought by the major industrial group in the cork industry.

Briefly, what we can say about the current state of primary functions of the existing forest owners' organizations is that those functions tend to

develop in areas where there is some kind of **strategic complementarity** between the services provided by the organizations and the capabilities of their members (Mendes, 1998, 2001):

- a) forest owners, specially in the middle ranges of forest holding sizes, have some demand and willingness to pay for technical assistance to apply for public incentives to forestry and for services reducing the risk of forest fires, but left on their own, it would be very difficult for them to go forward in these directions;
- b) forest owners' organizations have a staff capable to respond to those demands and which can be sustained by the fees paid by the members they assist combined with the public financial support organisation can get.

With their current dimension and capabilities the forest owners' organizations hardly can go much beyond these two kinds of primary functions (technical assistance in forest investments and management, and preventive silvicultural works).

B) Governance structure

One factor that is probably responsible for a great deal of the differences in performance among the existing organizations has to do with the quality of the elected boards of these institutions and the (des)incentives they provide to their staff. Some board members take their job with an attitude of public service and regularly take care of the orientation and monitoring of the activities of their staff. They are also able to strike an appropriate balance between monitoring, delegation of responsibilities and incentives with the foresters and other staff members. Finally they are active enough to find new opportunities for developing the services and the sources of funding of the organisation. When this happens the organisation manages to survive and to grow. When the elected board members don't have this kind of characteristics, the organisation tends to be stagnant, or even to become actually inactive.

4. CURRENT CHALLENGES FACING FOREST OWNERS' ORGANIZATIONS RESULTING FROM CHANGES IN FOREST POLICY

4.1. Recent changes in forest policy

Even though the tendency for the escalation of forest fires existed since the 1960s, in 2003 they reached a magnitude the never had before: 286040 ha burnt of forests (8,5% of the total forest land) and 139661 ha burnt of scrublands.

This event was bound to have impacts on forest policy. We will deal here with the following ones:

- a) the disposition of the Forest Policy Law of 1996 to create a Forest Fund aimed at compensating private forest owners for the positive externalities of their forests, if appropriately managed, was finally enacted;
- b) municipalities were committed with more responsibilities in fire prevention, supported by additional human and financial resources.

4.2 Potential conflicts between the new roles of municipalities and the development of forest owners' associations

Part of the current drive to promote municipalities as an important agent in fire prevention and also in other areas of forest development is a reincarnation of the old model of forest management which was embodied in the action of the Forest Services for many years since their creation. Since, for political and budgetary reasons, it is impossible to go back to the old days when that agency had a strong hierarchical structure, for some time also authoritarian, with operational capacities at the local level, the responsibilities for carrying out the old project of direct public intervention in private forests are now being committed to the municipalities. For many people inside and outside the Forest Services, direct public intervention is the best way to overcome the bad management existing in private forestry which is deemed to be responsible for most of the forest fires. In brief, the local public administration is substituting for what

the central public administration could not do and cannot do.

To promote municipalities to this stronger position of intervention in forest management a substantial share of the Forest Fund was allocated to them for two purposes:

- a) to hire foresters or other qualified personnel for their technical staff to take care of fire prevention and other forest management matters;
- b) to carry out silviculture works preventive of forest fires.

Some of what the municipalities are doing with these new means substitutes for what the forest owners' organizations in their territory are doing, or should be doing. In several cases the foresters they hire came directly from existing forest owners' organizations, attracted by the possibly plus stable job in a public administration.

If some municipalities have a clear understanding of the need to promote an autonomous collective organization of forest owners and are doing a good job in this direction, others are more easily driven by myopic electoral motives. In some cases, these motives make local politicians afraid of the development of an organization which they fear may dispute their influence in their territory. In other cases, they may spend these new means in actions which give them visibility, but have doubtful effects for effective forest development.

These political factors should not be forgotten in this case, given the way the public administration is organized in Portugal. It is a country with a centralized administration where municipalities are the only focus of democratic power alternative to the central administration and closer to the local populations. So, mayors tend to be relatively powerful people in their territories. Naturally they do whatever they can to be re-elected. So if they decide to get actively involved in forestry in a way that is detrimental to the development of forest owners' organizations they can do it and be effective in doing so. As was said before, there are good cases of mayors who do the opposite, but the risk is there anyway.

It is out of question that municipalities have some indispensable roles to play in this area. Just to name a few:

- they are responsible for harmonizing and regulating the uses of the territory through land planning and zoning;
- they are responsible for waste management services which if done appropriately reduce the risk of fires due to the fact that forests are damaged by illegal dumping of waste;
- they are responsible for roads, including forest roads, water reservoirs and other infrastructures necessary to fire fighting.

To carry out these and other missions, municipalities need human and financial resources. The problem is when these resources are allocated to them in the following conditions:

- they are not taken from the normal sources of funds for municipalities (local taxes, or transfers from the State budget under the rules of the Law of Municipal Finances), but from the Forest Fund which was supposed to be used for paying private forest owners for the environmental services of their forests, if they were appropriately organized to improve the management of their forests;
- the allocation of these funds to the municipalities is not conditioned by their active engagement in the promotion of the collective organization of private forest owners.

Finally there is another possible source of inefficiencies here. Many of the things that should be done in fire prevention and improvement of forest management needs planning and implementation at a spatial level that goes beyond the territory of a municipality. There would no problem if cooperation among mayors of neighbouring municipalities was easy. Unfortunately, it is not the case. Since many forest owners' organizations have an intermunicipal scale, this is a problem because it is often hard for them to find on the side of the municipalities a partner to work with which is effectively organized at the same scale. One possibility to reduce this problem would be to make to funds allocated to the municipalities conditional on their use in a coordinated way, at the intermunicipal level.

4.3 Potential inefficiencies of forest owners' organizations

Forest owners' organizations which got started and continue to be sustained mainly by public financial incentives are very vulnerable to inefficiencies. Here are some of these inefficiencies:

- a) these organizations can be taken over by directors who are only interested in having access to public funds which they use in opportunistic ways, without appropriate monitoring by the members of the organization and by the public administration;
- b) some of the organizations that are supported by public incentives work in a territory that is too small to allow them to become self-sustained in the long run;
- c) there are cases where public funds are allocated to an organization that comes to compete with an existing one not for the sake of improving performance, but simply because the new comers have good lobbying power with respect to the public agencies in charge of these incentives;
- d) the capacities of forest owners' organizations to do self-evaluation of their performance is very weak and the public agencies in charge of the public incentives they receive is also weak in doing that kind of evaluation.

For these reasons, public incentives to forest owners' organizations may not necessarily go to the ones who are more efficient in using them. The experience of the first years of existence of the Forest Fund, in that part that is going to the funding of projects proposed by forest owners' organizations, calls for urgent measures to prevent these kinds of inefficiencies.

5. CONCLUSIONS

In country with a very high percentage of private forestry and where this kind of ownership is very fragmented in the regions with forests more vulnerable to risks such as forest fires, the collective organization of forest owners is an indispensable step for forest development. For many years forest policy has neglected this goal, for the sake of pushing forward a model of direct intervention of the public administration in

forestry. For many years it was the central administration, through the Forest Services, which was attempting to be the main agent of this kind of policy. Nowadays this role is switching to the municipalities. If it is beyond doubt that municipalities have some indispensable roles to play concerning forestry (regulation of land zoning and waste management, infrastructures for fire fighting), it is also necessary that the human and financial resources they need to do this are used at an efficient scale (often intermunicipal) and in a way that is not substituting and is not detrimental to the development of the collective organization of forest owners.

About the public support to forest owners' organizations, it is justifiable at this stage of their existence given the importance of public goods provision in the mix of services they produce and the difficulties of jumping into the marketing of forest products when their bargaining power and membership base is not strong enough yet. The main problems that have to be solved in this matter are the following:

- need to lower the transaction costs these organizations have to bear in order to apply for the public financial incentives;
- need to put in place effective schemes for monitoring and evaluating the organizations that benefit from public support.

If there is no substantial progress in these directions these infant organizations may be at risk.

REFERENCES

- Costa, Zita. 2002. Instrumentos Financeiros de apoio às organizações florestais: passado e presente. Paper presented at the Seminar "Associativismo e Cooperativismo Florestal" organized by FORESTIS and FENAFLORESTA, Viseu, 24 May 2002.
- Direcção Geral dos Recursos Florestais. 2006. Estratégia Nacional para as Florestas. Versão Preliminar para Discussão Pública. 21 de Março de 2006. Lisbon: Direcção Geral dos Recursos Florestais.
- INE-Instituto Nacional de Estatística. 1997. A floresta nas explorações agrícolas 1995. Lisbon: Instituto Nacional de Estatística.

- Mendes, Américo M. S. Carvalho. 1998. Forest owners' organizations as a case of joint production of public goods and private services: a game-theoretical approach. In FORESEA Miyazaki 1998. Proceedings of the International Symposium on Global Concerns for Forest Resource Utilization - Sustainable Use and Management, October 5-8, 1998, Seagaia, Miyakaki, Japan. Vol I. Atsushi Yoshimoto & Kiyoshi Yukutake (eds.). Miyazaki (Japan): Department of Agricultural & Forest Economics, Myazaki University. pp. 186-196.
- Mendes, Américo M. S. Carvalho. 2001. Forest owners' collective action against the risk of forest fire: a game theoretical approach. In *The Economics of Natural Hazards in Forestry*, 7-10, June, 2001, CTFC-EFI, Solsona, Catalonia, Spain. IUFRO Division 4. 4.04.02 - Managerial Economics in Forestry, 4.13.00 - Managerial, Social and Environmental Accounting. Padua: Padua University Press. 2001. pp. 137-141. (http://www.forestry.utoronto.ca/socio_economic/conference/carvalho.pdf)
- Mendes, Américo M. S. Carvalho. 2005a. Implementation Analysis of Forest Programmes: some theoretical notes and an example. Paper accepted for publication in *Forest Policy and Economics*.
- Mendes, Américo M. S. Carvalho. 2005b. The role of institutions in forest development: the case of Forest Services and forest owners' organizations in Portugal. Paper presented at the International Conference "The Multifunctional Role of Forests – Policies, Methods and Case-Studies", University of Padova, 29 April.
- Mendes, Américo M. S. Carvalho, Diana Feliciano, Marisa Tavares & Rafael Dias. 2004. *The Portuguese Forests. Country level report delivered to the EFFE Project – Evaluating Financing of Forestry in Europe*. Porto: Faculty of Economics and Management – Portuguese Catholic University.