



From Hegemony to Ashes:

The Political Economy of Portugal's Forest Fires

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Forest fires are acts of nature, but they are paired with the work of societies which can deter or activate them. Portugal's relationship to its forest and forest management is linked to its history. In the 1500s Portugal sailed to and colonised locations on the Asian, African, and Latin American continents. The story of Portuguese forests was the story of Portuguese colonialisation. In the 20th C, Portugal was an undisputed semiperipheral country. Here I tell the story of how Portuguese forests became the story of external debt and agro-exports.

Key words – developing nations, agro-exports, global markets, debt, forestry

Introduction

Fires are the work of nature, part of a forest's natural cycle. "On Earth, something is always burning" (NASA 2017). In the 2017 fire season, wildfires erupted in Indonesia, Turkey, Canada, and Chile, to name a few. In the United States, twelve Western States fought multiple massive fires. Scientists say that around the world, the amount of land being burned in wildfires is declining (Harvey, 2017). Ironically, it is because agriculture has left less biomass available to burn. But the Portuguese fire is being called the worst in decades. The fire which began in the mountainous area of Pedrógão Grande (district of Leiria) on June 17, 2017, left at least 64 dead, 250 injured, 500 houses totally or partially destroyed, and dozens of villages evacuated. It was estimated that about 40,000

hectares burnt. Immense devastation and deforestation.

Nature endowed Portugal with trees, climate, and location. Fifteenth-century Portugal was described as "A vast intertwined forest" (Oliveira Marques, 1971). Located on the south-western edge of Europe, it is warm and fanned by strong Atlantic winds. Therefore, nature endowed Portugal with a high fire risk, and now (scientists say) a "wildfire season" extended by climate change.

Fires are also the work of societies which can deter or activate them. My goal is to consider some of the public policies which contributed to the devastating June fire and to contextualise those in terms of Portugal's political economy in the *longue-duree*. For Portuguese forests, global hegemony and external debt were the important driving forces.

Following the June conflagration, blame was placed on an inadequate fire-prevention strategy. Blame was directed toward individual land owners who ignored the required preventative measures of clearing and cutting vegetation within 50 meters of the habitations. The accumulation of brush is particularly problematic on privately absentee-owned plots. In some rural areas, emigration, beginning in the 1960s during the Salazar regime, led to unattended plots. Blame was also directed at government agencies which ignored the need for safety lanes" creating a break between dwellings. Such lanes would have enabled firefighters to focus on fighting fires rather than

evacuating people. The government was criticised for lacking long-term territorial management. Lack of staff may have contributed to this. The Director of Forestry (DGF) had been folded into the Minister of Agriculture, Forestry, and Rural Development (2004) and the number of forest functionaries reduced - 540 compared to 10,470 in Spain (Carvalho, 2017). In confronting the recent fire there were water shortages, insufficient firefighting equipment, and an inadequate emergency response system – lacking communication and coordination among the multiple emergency services. During the first couple months of 2017, fourteen (of thirty-six) district commanders were dismissed from their posts, and five others were relocated. A RTP investigative report charges that they were replaced by individuals who lacked necessary firefighting qualifications and regional knowledge. Furthermore, the fired commanders charged the Socialist government with politicising those appointments (“Operacionais substituídos por “boys” do PS) (2017). Questions were also raised about the origin of the fire. In a July 4th press conference the Portuguese Institute of the Sea and Atmosphere (IPMA) presented evidence to show that there was only a 5 percent probability that the ignition was caused by thunderstorms. The cloud-to-ground discharges that were detected near the site of the fire occurred hours after the beginning of the fire. In the end, however, it was the expanse of highly combustible materials that mattered.

Portuguese Hegemony Depended on Forests

Maritime trade, fisheries, and Atlantic exploration were the core of the 15th century economy. Portugal was the only European nation that had holdings in both the North and South Atlantic before 1492, and on both the Eastern and Western shores of the Atlantic by 1500. As one author wrote, the “empire literally floated on the vessels that connected the outposts with the capital.” Forests were fundamental, and Leiria (the location of the 2017 fire) is frequently mentioned.

Although King Denis (1279–1325) was not the

first to attend to forestation, he ordered the plantation of pines in the coastlands of Leiria to protect agricultural lands from the advancing coastal sands. In 1450 the Monarch recognised the need for a constant and safe source of timber (oak and pine were preferred) and created a new office. The Woodman (*mateiro*) was charged with the administration of the fellings in the Royal Forest of Leiria. Declining domestic wood production led to the 1471 Royal prohibition of timber exports “to Castile and to other parts.”

Portugal was not the first to link ships with forests. Ships were so important to the Roman emperors that they offered privileges and tax incentives for their construction; and many of the colonial activities were aimed at securing timber supplies (Williams, 2006: 72). The Portuguese Prince, Henry the Navigator (1394–1460), launched explorations down the western coast of Africa. By 1500, Portuguese overseas explorations were part of the national fabric. Explorations were paired with a series of Crown laws that promoted reforestation. A few are mentioned here. In the 1565 “Law of Trees”, King Dom Henrique ordered officials “of all cities, towns and villages to plant and create pine forest on their waste lands within its boundaries... And further that in the places where there are no waste lands or where these are not so large that one can grow the mentioned timbers and forests on them, or where it is impossible to guard them well, that here they force the masters of land, estates, farms and properties to have planted the mentioned trees on the sites where they least occupy the mentioned areas.” In 1597, King Philip II ordered the reforestation of his land near Leiria and appointed a Chief Warden of the Royal Forests. Eventually forest administration was transferred to a branch of the Ministry of Marines. In 1628, the Portuguese East India Company joint stock company was established, and the Company gained rights to the timber for shipbuilding from the Royal pine groves of Leiria.

By the 1700s, despite having fallen from its hegemonic apex, Portugal still retained colonies in Africa, Latin American, and India. Colonial management required forest management. Colonies meant ships for trade and for protection of merchant cargo. A long-distance trading cargo ship, for example, required

from two to four thousand trees. Furthermore, warships were needed to protect the colonies from ascending European powers, such as the Dutch who had occupied part of Brazil in 1624. Difficulty in obtaining oak compelled the extensive use of the less durable pinewood in shipbuilding, especially for planking and masts. Because the empire's shipbuilding needs expanded more quickly than reforestation, it was often necessary to import timber. Timber, including hard wood was imported from the East, Flanders and the Baltic. The ships for the overseas voyages were generally constructed in the Riberia das Naus (the Royal dockyard at Lisbon). However, facing wood shortages, the King turned to Calicut, which for centuries had been known as a great centre of shipbuilding and navigation. The Portuguese established a fortress and settlement there. In 1514, Afonso de Albuquerque ordered two ships to be built at that shipyard taking advantage of India's facilities and timber. By the time Napoleon invaded Portugal (1807), the Portuguese fleet was much reduced. Only with the aid of the British Royal Navy could the Braganza Royal family and its court of 15,000 flee from Napoleon's army to safety in Brazil. By the end of the 19th C, forests were paired, not with shipbuilding, but with pulp and then with paper.

Portugal the Semiperiphery: Agro Exports and External Debt

The recent fire involves eucalyptus. Portugal has the largest area of planted eucalyptus in Europe and 5th worldwide (ejatlas, 2015). Various accounts place the introduction of the eucalyptus sometime after 1850. The eucalyptus "boom," however, dates from the 1960s when the forests provided wood to recently established pulp mills. Eucalyptus globulus has advantages for the pulp and high-quality paper industries. Trees more grow quickly than oak, cork or pine, and can regenerate from stumps: three times for a single tree. The pulp has shorter fibres, producing stronger and higher-quality papers. These characteristics make it highly profitable, and explain how monoculture tree plantations grew at the expense of forest biodiversity. By 1995, Portugal accounted for 14 percent of the eu-

calyptus-pulp world market. In the 1970s, the boom was met by protests against the eucalyptisation of Portugal. Protesters complained that industrial eucalyptus plantations displaced diversified forests and subsistence agriculture, killed nearby grass, sapped the soil of nutrients and water, and left animals without edible leaves. There are no koalas in Portugal. Protests against municipal agreements to plant eucalyptus continued. In 2012, Portuguese Radio and Television (RTP,pt, 2012) reported that 1,800 volunteers were gathering to "clean" several areas in Portugal of its "invasive" species.

Brief history of the Pulp/Paper industry

The forest industries (pulp and paper) evolved through mergers, acquisitions, the creation of new holding companies; and also through shifts of ownership from private to state, and then to state-private. Government Forest Services and forest industries have been the major stakeholders in forest management. The industry grew in 1952 with pine pulp. In 1964, the pulp industry moved into paper making, and an additional mill was constructed. By 1967, the new mill combined a pulp production unit with an integrated papermaking operation. After the 1974 Carnation Revolution, the Portuguese paper industry was nationalized and benefitted from state funds. In 1993, the government listed some 13 percent of Portucel's shares on the Lisbon Stock Exchange while maintaining control of some 55 percent of the shares. Portucel and Soporcel merged to form Portucel Soporcel Group (listed as Portucel S.A.) in 2001. In 2003, the state, in a move to privatisation, accepted bids for part of its stake, allowing foreign investors to buy up to 30 percent of Grupo Portucel Soporcel. In 2006, this company was responsible for 180,000 hectares of woodland and some 70 percent was planted with eucalyptus. In short, the industry's growth promoted the advance of eucalyptus plantations.

Debt and Agro-Exports

Who owns the forests? Globally, states own about 76 percent. In 2015, only 2 or 3 percent belonged to the Portuguese state (Carvalho, 2017). Many authors and government agencies have analysed and evaluated Portuguese forestation and forest management programs (Mendes, 2004 & World Bank, 1992 offer detailed summaries). Certainly some of the government programs did attempt to address fire management through forest diversification and the construction or improvement of fire breaks, roads, and water points. Nevertheless, a brief description of some of these programs shows how the importance of the exports led to the spread of eucalyptus.

The forest management policies linked agro-exports and debt. In 1976, Portugal requested assistance from the IMF. The 1977 bailout was needed to cope with public and external deficits. Several years later, a balance of payments crisis along with a trade deficit of 17.3 percent of GDP led to the 1983 IMF bailout. Loan conditions included currency devaluation (Portugal adopted the euro in 1999). Reforms required austerity: this meant reductions in public service expenditures. And Portugal would need to increase exports. Export growth was concentrated in traditional sectors e.g. textiles and clothing. Furniture and wood products virtually exploded in 1979 (Resende, 1984: 44). In 2011, the IMF returned. Portugal's sovereign debt rating was downgraded and IMF-EU loan-negotiations advised additional fiscal reforms to streamline the functioning of the public sector.

Contemporary Forest Policies in Brief

Throughout the years, special laws were created for the expansion of forest plantations. The dictatorship of Salazar promoted forestation of the maritime pine (Plano de Povamento Florestal (PPF)). Between 1935 and 1972, the Forest Services promoted somewhere between 350,000 and 408,000 hectares (often on common lands (baldios)). In 1954 a "First Development Plan" (1º Plano de Fomento, Law 2069) sought to promote forestation on private lands. In the early 70s, Portugal was fighting expensive wars in three

African countries. Defence expenditures represented 27 percent of the national budget in 1960, 45 percent in 1966-1968, and 30 percent in 1973. Trees helped. In 1975, forest wood and forest products (excluding cork) accounted for 17.7 percent of exports (down to 10.2 percent in 2000) (Mendes, 2004: 37).

In the 1980s, the World Bank encouraged pine and eucalyptus-planting as part of a social forestry program with the general goal of integrating agriculture and forestry with local communities. A World Bank loan of US\$50.0 million was approved in 1980 (World Bank, 1992: 7). Specific targets were: to increase foreign exchange earnings (and savings); to promote economic growth by increasing forest production on marginal lands; to promote the establishment of a Forestry Extension Service; to develop a long-term integrated strategy for the forestry sub-sector; and to improve incomes of poor, smallholder forest owners. The project anticipated 150,000 hectares of new plantation forests. The Portuguese Directorate General of Forests (DGF) would be responsible for 90,000 hectares and the Cellulose and Paper Company of Portugal (PORTUCEL) for the rest. The loan would be accompanied by technical assistance and training, the establishment of a Project Coordinating Unit, and credit for a pilot project to facilitate associations or cooperatives of small private owners.

Eighty-seven percent of the revised target (130,000 ha.) was eventually achieved, but with financial shortfalls. "The project achieved most of its afforestation objective after a three year extension, but institutional achievements were limited and the credit component failed. On balance, the project is rated marginally satisfactory. However, its sustainability is uncertain" (World Bank, 1992: 3).

From the World Bank perspective, patterns of land ownership hindered the outcome. About 80 percent of the existing forests were owned by some 800,000 individual smallholders with average holding sizes of about 3 ha. The rest was owned by baldios, wood processing industries, and the State (World Bank, 1992: 15). Fragmented ownership complicated planning, road construction, timber harvesting, and marketing. The high number of small non-industrial private forest owners (NIPFO) also hindered the creation of as-

sociations or cooperatives. Even if it weren't for the fractionalized ownership (and, as some argue, an erosion of "community" due to the years of dictatorship), most lacked the technical skills to manage their lands. Project implementation also suffered from cuts in public sector expenditures and hiring freezes. From the perspective of "mother nature," however, the project was successful. The monocultural expanses of eucalyptus and pine offered plenty of fuel for a fire.

The World Bank loan for the Portuguese Forest Project (PFP) proposed favourable treatment for pine and eucalyptus in an attempt to overcome a projected shortfall in timber supplies for sawmills and the export-oriented pulp and paper industries. The implementation was to help establish commercial forest plantations (Mendes, 2004: 103). The pulp industry took advantage of the opportunity to grow and buy lands for eucalyptus planting all over the country (Carvalho 2017). The advance of eucalyptus over pine was a trend that would continue. The World Bank noted that their revised objectives were only achieved by combining the European Community's (EC) grant funds and those of the World Bank.

Since Portugal was about to join the EC in 1986; it was eligible for pre-accession structural funds. The problem of forest fires was worsening and environmental awareness was rising, leading to criticism of the type of projects supported by the previous PFP. For those reasons, incentives (with EC money) were offered to the small NIPFOs and forest contractors. There was also an emphasis on non-eucalyptus broadleaves (including cork oak forests).

These programs were followed by the Forest Development Plan (1994-99) which intended to promote the reforestation of burnt forestland, as well as the afforestation of other suitable land. It too drew from EU structural funds. The main beneficiaries were the NIPFOs but eucalyptus plantations continued to expand even though they received reduced public support (Mendes, 2004). The forest industries continued to claim shortages. In the mid-1990s, the paper industry, facing serious competition from Latin American countries, wanted a major public commitment in order to reduce costs and increase the supply of timber. Furthermore, they objected to the power

given to local city councils in the licensing of eucalyptus plantations (Mendes, 2004: 184). The paper industry continued to be a driving force in the national economy. In 2007, the EU granted the Portuguese government permission to offer a tax rebate of 38 million euros to the Portucel-Soporcel Group for the construction of a new paper mill in Setubal.

Developing Nations: Promises and Dilemmas

European commitments for forest management are incorporated in the Portuguese National Forest Strategy (NFS), which was updated in 2015. Among its objectives are to enhance forest productivity through sustainable forest management; to internationalize the forest sector and increase the value of forest products; and to enhance the sector's efficiency and competitiveness. Shortly after the June 2017 fire, a News Online headline proclaimed "Portugal bans new eucalyptus forests." The Agricultural Minister clarified that the proposed forestry reform would prohibit new eucalyptus plantations except in areas of existing plantations and where there were previously approved management plans.

Certainly the Portuguese economy is more diversified than some developing economies which depend to a much greater extent on raw material or minimally processed exports. For all of them, the question is whether such export-oriented enclaves (be they bananas, eucalyptus, coffee, salmon, or palm oil) can be the motor of economic advance. And will those resources be sustainable? Forest products account for about 7 percent of Portugal's exports. Reducing eucalyptus plantings would harm the export economy, reducing the flow of foreign exchange. Similarly, reducing pine plantings would depress the income for small firms, costing thousands of jobs in rural areas. Portugal's insertion into the world economy is path dependent. Forest-products held the promise of imperial expansion and then of economic accumulation. The latter was bolstered by grants and loans from international agencies. But now, some of that promise has been reduced to ashes.

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