EXECUTIVE SUMMARY

In 2024, the 97 project activities in the **2020-2030 National Action Programme (NAP)** reached an **overall cumulative implementation since the programme's inception of 48 %** (compared to 39 % in 2023).

The National Action Programme **has 4 strategic objectives**, the main results and challenges of which are highlighted below:

(i) Within the scope of the **"economic valuation of the territory,"** a positive evolution in **land registry** projects has taken place, surveying an area of 58 % of those 153 municipalities in mainland Portugal without a land registry, through the eBupi simplified process as well as the 62 Integrated Landscape Management Operations (OIGP). However, major challenges remain with regard to increasing the profitability of rural areas through the implementation of **tax and financial incentives**, **public information and statistics on the forest and the sector**, **certified management**, remuneration for **ecosystem services** (already planned for the OIGP) and **risk coverage** mechanisms (e.g. insurance), which have only just begun to develop, and would greatly contribute to increased management, quality and care for rural areas.

(ii) As part of the strategic objective of **"caring for rural areas"**, significant progress has been made in recent years in terms of **vegetation management around built-up areas**, both in the public and private spheres, but the high associated expenditures require a **careful selection of priorities** based on updated fuel load information within the urban/rural interface and agile monitoring mechanisms, largely based on satellite observations; once again, in 2024, **supervisory** actions were implemented to ensure compliance with this obligation, and it is important to assess the impact that unregulated circumstances (around 40 %) have on the maintenance/increase of risk. There are still critical projects that have not been implemented to the extent required when confronting these challenges – 3 times more than what has been currently completed – first and foremost, those projects relating to the **recovery of burned areas**, forestry in large areas **– mosaics –** and **extensive grazing**;

(iii) In regard to measures for **"behavioural change"** and given the impact that **arson** has on the size of burned areas, priority should be given to mental health and **measures on the prevention** of alcoholism and addiction, monitoring and supervising repeat offenders and **monitoring behaviour, with the visibility and the ability for deterrence**. Of particular note is the consistent reduction in the cause of ignition sources with fire usage, to which the ***Portugal Chama*** advertisement campaign, the GNR's ***Floresta Segura*** outreach campaign and the **support platforms for burning and burned areas** continued their contribution in 2024. Also noteworthy is the progress made in the *Raposa Chama* campaign aimed at children between the ages of 5 and 12, which should be strengthened in the coming years.

(iv) With regard to the last strategic objective of **"efficient risk management"** for rural fires, it is worth mentioning the work of **Lessons Learned** and the consolidation of international channels (United States, Canada, Brazil, Chile and Australia), in addition to the establishment of FireHub by the United Nations agency FAO, of which AGIF is a founding member. However, the September fires once again exposed chronic weaknesses, such as:

- Ensuring the capacity for anticipation, planning and communication;
- Ensuring command and control of operations for the multiple teams involved, guaranteeing specialisation and the use of perimeter techniques with tools, fire and machinery;
- Strengthening the quality of decision-making in the management of monitoring, suppression and logistical resources.

In this chapter, it is expected that the **study of system dimensioning,**[1] in terms of both land and air resources, will also contribute to a more effective and efficient system. Two important advances should also be noted:

(i) **calculating the cost per fire of damage and loss**, methodologies that are expected to be finished in 2025, and

[1] A study to align available resources with needs, in an articulated manner between the entities. The project began in the first quarter of 2025.

(ii) the **Interoperable Platform**, for sharing information between entities and with citizens.

The segmentation of various levels in emergency services and their impact on the allocation of resources and response times will also be a vector to explore, of which the classification of **fire management**[2] forms a relevant part and which has not yet been regulated.

The **Qualification Plan** for system agents and their accreditation has a cross-cutting impact on all processes, and had to be published by the government before the end of 2021, yet in spite of this, there have been significant advances, albeit late ones, such as the development of content for higher-education courses (micro-credentials) that will be taught as early as 2025.

Finally, in regard to system governance, the **regional and sub-regional commissions have been consolidated** on the basis of the territorial organisation set out in NUTS II and NUTS III. These commissions, led by the Regional Coordination and Development Commission (CCDR) and by the Intermunicipal Communities (CIM) respectively, and on which the primary Integrated Rural Fire Management System (SGIFR) entities also have a seat, approved all the regional programmes (5) before the end of 2024 and defined half of the sub-regional programmes, with 9 of them already approved, thereby assuming the structural change that the country has decided to carry forward.

As the Organisation for Economic Cooperation and Development (OECD) highlights in its work funded by the European Commission[3], the Integrated Rural Fire Management System (SGIFR) has **"significantly improved the institutional framework for fire management,"** a complex and cross-sectional problem, where the need for **cross-sectoral coordination** is paramount (also within the scope of government) and also recommended by the Independent Technical Commissions for the 2017 fires.

[2] "Controlled burn" is the classification given to a rural fire where, under suitable weather conditions and in rural areas, **the fire is allowed to spread** within a pre-established perimeter by the commander of the fire brigade

[3] "Climate adaptation: challenges for the integrated management of rural fires in Portugal" - Status Report, OECD, April 2025

Despite the progress described above, there are key projects yet to be implemented - some of which fall within the exclusive jurisdiction of the Portuguese Parliament - which would allow the root causes of the problem to be resolved, of which we highlight the following:

- Projects in the field of regulation and sectoral frameworks, such as the amendment to legislation on the **inheritance regime**, the revision of **regulatory mechanisms for rural properties, the revision of the forestry regime, legislation on tree-felling**, and the provision of **forestry information** necessary for defining public policies and decision-making;
- Measures designed to motivate the achievement of targets, such as amending **legislation on transfers from local authorities**, the application of **bonuses indexed to results** for Public Administration teams and encouraging the use of **programme contracts** for the regional and sub-regional implementation of multi-annual contractual relationships with forestry producer organisations and fire brigade associations.

In financial terms, the structural change that has taken place in the meantime has also been evident in the evolution of expenditures since 2018, with a complete paradigm shift, as **prevention** has been given priority: **€354 M in 2024** vs **€28 M in 2017**, which ultimately represented an increase in the relative weight of firefighting from 20 % in 2017 to 55 % in 2024 (+ 1 p.p. compared to 2023).

2024 was the year in which the most funds were spent on the system, with **€638 M in total** – €155 M more than in 2023 – of which **€308 M from the State Budget (48 %)**, largely explained by the increase in **prevention (+€92 M)** with the resumption of PEPAC support for Agriculture (which had fallen from 2022 to 2023), and the RRP for conducting operations in the AIGP. There was also an increase in funding for **firefighting (+€63 M)**, focused on reinforcing our own capacity and leasing air resources and funding firefighters.

This growing availability of funds would produce better results if there was **integrated coordination between the various funds**

and the state budget, in addition to a capacity for **management closer to the population as well as simplified access**, a model that has been tried before and now deserves a stronger political impetus.

"Despite a significant increase in financial resources for rural fire management, Portugal still lacks a coherent funding strategy" (OECD, April 2025)

We can therefore refer to the following: in the social dimension, **the proportion of damage caused by arson**, which accounts for 84 % of burned areas, once again requires **public authorities to focus on prevention measures and monitoring behaviour, with a reinforcement in their deterrent capacity.** On the other hand, a reduction in the number incidents is changing the perception of risk not only among the population, but also among decision-makers, which could compromise the priority given to preventing rural fires. This challenge is also present in the international context, with the interest raised by the SGIFR and the Portuguese course of action, as successive entreaties have been made to Portugal to share its experience in various forums, namely the European Union and the United Nations.

The annual reports on the Integrated Rural Fire Management System (SGIFR) for the last five years, submitted to Parliament and the government and publicly available[4], show the progress and positive results. However, the fires of 2024 exposed the chronic weaknesses that these reports had already identified and **they still do not enable the country to achieve the vision of a "Portugal protected from serious rural fires" by 2030**.

Although the spring and summer of 2024 had cooler temperatures[5], the North, Central, Lisbon and Tagus Valley regions – two thirds of the country – were exposed to **extreme weather conditions** for three days in September, with strong, hot and dry winds, which had pushed the **danger indices to record levels not seen over the last 25 years**.

2024 was the year with the fewest fires since records began, with a decrease of 1 250 fires (-17 %) compared to 2023, consolidating the downward[6] trend followed since 2018, which on summer days

[4] (https://www.agif.pt/pt/relatorios-anuais)

[5] 15 % fewer days with a fire-weather index FWI> 38.3, compared to the post-2017 period (2018-2023)

[6] In 2024, Portugal avoided 3 out of every 4 fire events, as there were 15 600 fewer fires throughout the whole year (-75 %) compared to the 2001-2017 period.

is as much as 60 % less than before, caused by improper use of fire and by arson[7]. This collective success, which is more pronounced in some regions, has helped reduce the frequency of large fires. Between 15 and 19 September, this was the case in the West, Tagus Valley and Central Interior regions, where, despite the very adverse weather, the few fires that did occur were extinguished effectively, despite **insufficient vegetation management, including those large sections of areas burned in 2017.** However, this was not the case in the densely forested communities of the North and Central coast, where post-fire or post-exploitation forest management was not implemented on a large scale, leaving high fuel loads available to burn, which, combined with the weather[8] conditions and alignment in the direction of the Douro, Paiva, Vouga and Dão rivers, created the conditions for dozens of fires that were not extinguished during the initial conflagration to spread intensely and with severe consequences.

Since 2018, as a result of improvements in forecasting, knowledge and technological tools that were available in 2024, more informed management has been possible, which was not the case in 2017. Despite this knowledge and the readiness of material and human resources, there were significant losses in a number of communities[9], which recorded **16 fatalities**[10]**, dozens of homes and businesses**[11] destroyed or damaged, and more than **135 000 hectares** burned, with an estimated value of **€67 M in losses**, plus the emission of **0.69 megatons of equivalent carbon dioxide**, the highest figure since 2017.

Portugal and the Portuguese people are faced with the fire paradox: by being very successful in reducing the number of fires and burned areas, without actively managing post-fire areas, namely in 2017, and without intervention to scale in the remaining

[7] According to preliminary information from the Judicial Police, which interviewed suspects detained in 2024, arsonist behaviour is not associated with economic causes/opportunities, but with alcoholism, social exclusion and mental disorders where mimicry triggered by TV images is relevant.

[8] Living and dead fine vegetation fuels are primarily predisposed to combustion due to strong, dry winds from the east and northeast (high pressure cresting over the Bay of Biscay and low pressure off Peniche).

[9] Viseu Dão Lafões, Alto Tâmega, Metropolitan areas of Porto, Aveiro and Coimbra

[10] 7 civilian and 9 operational victims, including 5 GNR personnel who died in a helicopter crash on 30 August

[11] Figures still being calculated by CCDR-North and Centre

green area, we have allowed the accumulation of fine, shrubby and arboreal vegetation over the last 6 years that will fuel faster and more severe fires that can burn more than 750 000 hectares in a single year and/or destroy unique sites and threaten important infrastructure and urban communities

Main Conclusions:

The fires of September 2024 demonstrate that there are difficulties to overcome and serve as a reminder to Portuguese society and its political representatives to mobilise reinforcement of the course already established. It is therefore important to support the fulfilment of institutional missions, align public policies and incentives so that they value forestry resources and provide stability in land management, mobilise active management, and change behaviours, because, as has been displayed once again, a reinforced effort to extinguish has proved insufficient.

As already stated in the reports submitted during previous years, once again we emphasise the need to:

- **Implement the National Plan for the Integrated Management of Rural Fires** - a strategic reference for actions to mitigate the risk of rural fires - namely its National Action Programme, ensuring its political supervision and coordination with other instruments, e.g., the "Forest Intervention Plan" presented by the government in March 2025 and,
- Ensure the operational and financial **coordination** of institutions and review incentives for private individuals at all territorial levels, based on **strong political support.**

Sustained Reduction in Occurrences

In 2024, **6 255 incidents** were recorded, representing **a 17 % reduction compared to 2023**, 1 268 fewer than the 7 523 recorded the previous year.

In the **post-2017 period (2018-2024),** there was an average of 9 302 fires per year - **a decrease of 63 % from the annual average for the 2001-2017 period**, 15 648 fewer fires per year than the 24 950 recorded in the previous period.

This downward trend even continued during severe weather days, with a **54 %** drop when compared to the same periods.

Influence of Meteorology

In 2024, there were **45 days of high fire danger**, a **reduction of 18 days compared to the previous year**, reinforcing **the trend of less adverse weather in the 2018-2024 period compared to 2002-2017** (5 fewer days on average/year), 52 compared to 57.

However, **extreme weather events occurred that had not happened 25 years ago**, which amplified the occurrence of very severe fires.

Impacts

There were **16 fatalities**, 7 of which were civilian and 9 were operational

The **fires caused losses of €67 M in domestic forests**, affecting 2.36 million m³ of wooded areas.

The **biggest losses** were in the form of wood, resin and cork (48.5 million euros), followed by stored carbon (15.8 million euros), biomass for energy (2.4 million euros) and fruit (357 000 euros).

Other material damage, e.g., housing and infrastructure, is still being determined.

Burnt Area

The burned area in 2024 was **137 651 hectares**, reflecting an **increase of around 4X compared to 2023**, 103 142 more hectares than the 34 509 recorded in the previous year.

Over the last **7 years (2018-2024)**, there was an average of 66 358 hectares of burned areas, **a decrease of 59 % from the annual average for the 2001-2017 period**, 95 079 fewer hectares burned than the 161 437 recorded in the previous period.

Of particular note in 2024 was the month of September, which accounted for **92 % of the annual burned area**, exceeding the **2001-2017 average by 7x**.

Causality and Impact of Arson

The decrease in the number of events since 2018 is mainly due to the reduction in causality associated with the use of fire and arson. However, in 2024, **arson was responsible for 84 % of burned areas with a known cause**, totalling **84 272 hectares**

Regional Distribution

North: 57 % of incidents and **48 % of burned areas (65 442 hectares)**.

Centre: 17 % of incidents and **50 % of burned areas (68 558 hectares)**.

Other regions: Maintained a trend of significant reduction in incidents and burned areas.