

Evaluation of Operational Projects Supported by Cohesion Funds for the National Forest Parks of Greece[†]

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Abstract: National forest parks (NFP) represent protected areas playing a critical role in reversing biodiversity loss and contributing to sustainable development in Greece. However, the NFPs of Greece lack funding. A common way to support the NFPs is through EU funds. The Cohesion Fund (CF) is a European structural and investment fund that was implemented by the EU during the 2014–2020 period for the ‘Natura 2000’ regions. The scope of this research is to figure out the number of assigned projects and payments that were funded by the CF for this period; which planning expenditure target was mostly proposed; and to assess the progress of CF absorption. The data were categorized into two groups, group 2019 and group 2020, and a regression analysis was conducted. The results can provide a model of fund programming in order to achieve a higher absorption rate of CFs.

Keywords: regional development; Cohesion Fund; Natura 2000; national forest parks



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1. Introduction

‘Natura 2000’ is a European Union (EU)-wide network of protected areas established to be compatible with the Birds and Habitats Directives, collectively known as EU ‘nature legislation’, regarding the ‘Natura 2000’ regions [1]. To plan for the sustainable development of protected areas, it is fundamental not only to qualitatively monitor each ecosystem but also to record past management actions and their effectiveness [2]. ‘Regional development’ is a legitimate way to heighten financial viewpoints aiming for the economic development of the different areas of a country through advanced and effective planning [3]. Regarding the ‘Natura 2000’ regions, the EU has implemented several funds during the 2014–2020 period, including the Cohesion Fund (CF) [4]. In fact, the CF was established together with the Council Regulation (EU); No 1300/2013 of 17 December 2013 (corrigendum) for preserving the environment and promoting resource efficiency. Indeed, the goals of CFs focus on the environment and sustainable development. Therefore, the actions to be financed will aim to improve the conservation status of habitats and species of Directives: 92/43/EEC and 2009/147/EC. In practice, a great variety of activities are funded including field studies, the development of management plans, habitat conservation and restoration, species monitoring, etc.

National forest parks (NFP) are part of the special regions known as protected areas in regard to their complex environments [5]. The concept behind NFPs is aimed at protecting forest resources and simultaneously promoting forest-based tourism and economic development [6]. Indeed NFPs provide financial opportunities through recreation [7]. Although the NFPs have made great achievements in promoting ‘Regional development’ [6], they need to be better organized. The institution of NFPs began in Greece in 1938 [5,8], and since the Law 996/1971, Greece has established 10 NFPs and the protection of native flora and fauna with the coordination and control of this research, regulated by the Presidential

Decree of 67/1981 [5]. However, due to poor financing and understaffing [9], the fast pace of NFP expansion and the lack of predictable planning have undermined the sustainable development of the regions. Additionally, NFP development has been unbalanced in regional distribution. The management bodies (MBs) of NFPs aim to facilitate the administration and management of the areas, elements and sets of nature, and the landscape according to Law 4519/2018. Information-awareness, monitoring, and supervision of security are the main actions of its staff.

Regarding the utilization of the funds (up to 2010) in Greece, it appears that they are not completely absorbed either due to a lack of specialized staff or because there is funding of non-competent entities with regard to the management of the protected areas [10]. Based on only one previous government study by the Greek Ministry of the Environment, it emerged that 41 projects were implemented in the 10 NFPs between 2004–2007, in which cases the main concern was the financing of the operations of the MBs [11]. Until now, not only are there no independent scientific surveys on the previous operational projects but there is also a lack of diligent recording for the absorption of EU funds during the 2014–2020 period. Therefore, this paper provides original and supportive information; plus, the results will provide important knowledge for charting future sustainable development in these bio-unique areas.

2. Materials and Methods

Six out of ten NFPs in Greece have been supported through the CF during the 2014–2020 period. The following NFPs were studied: the Ainos NFP; the Parnassos NFP; the Parnitha NFP; Oitis valley, the Sperchios and Maliakos Gulf NFP; the Olympus NFP, and the Samaria, Western Crete NFP. The NFPs being researched were separated into two groups since the first three started on 1 January 2020 (group 2020), while the others have been funded since 1 January 2019 (group 2019). Each CF that was examined has the 31 December 2023 as the operation end date. The funding is achieved through their MBs' submission of funding proposals.

Most of the CFs being examined are worth 1,000,000 EURO (€); apart from the Samaria NFP (990,785 EUR) and the Oitis NFP (983,365 EURO). The NFPs of Olympus and Oitis have been funded for three and two projects, respectively. The Olympus CF is divided into the regions of Western Macedonia, Central Macedonia, and Thessaly, while the Oitis CF is concerned with the regions of Thessaly and Central Greece.

In total, this survey investigated nine operational projects in six NFPs. The list of operational projects through the CFs that concern NFPs can be found on the NSRF (National Strategic Reference Framework) [12] and all of the assigned projects and payments funded by the CFs are available online on the public website Diavgeia [13]. For entering the data, the operation names/code of the CFs (or MIS) were used:

- group 2020: 5033022 for the Ainos NFP; 5032966 for the Parnassos NFP; and 5033697 for the Parnitha NFP;
- group 2019: 5032589 for the Oitis NFP; 5033173 for the Olympus NFP; and 5033240 for the Samaria NFP.

Figure 1 contains the methodology flow chart that was selected.

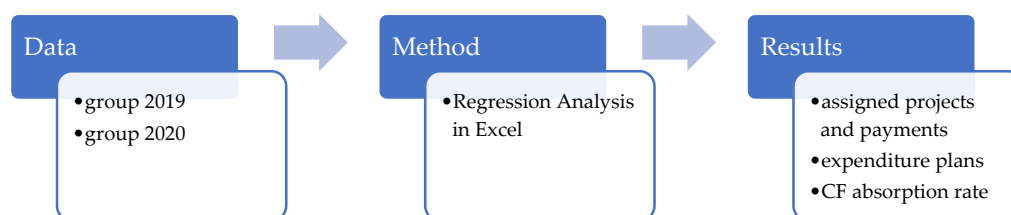


Figure 1. Methodology flow chart.

Linear regression in MS Excel was selected for the assessment of the operational projects that are being examined for the six NFPs to prove a correlation between the results. MS Excel provides opportunities for researchers to obtain further explanations of causes and effect variables which may encourage further research [14]. Linear regression is a widely used statistical technique that measures the association between two variables; plus, it provides a way to predict trends [15].

3. Results

Six MBs in Greece have been funded through nine CFs. In total, 64 actions, both assigned projects and payments, have been implemented. The Olympus NFP and Oitis NFP have proved to be more active in publishing competitions in comparison to the other NFPs that were examined, which may be due to the fact that these NFPs belong to group 2019, and they also have more than one operational project (Figure 2). It is noteworthy that the Parnitha NFP also has an active role in the conservation of its supervised area; however, the four published competitions did not attract public interest and so far, no assignments have emerged.

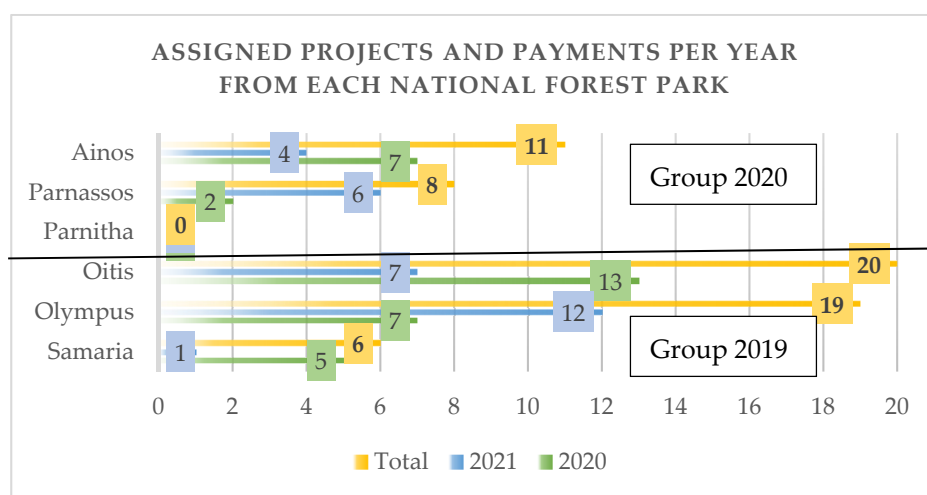


Figure 2. Assigned projects and payments per year for each NFP.

In addition, it is important to examine if there is a common planning expenditure target. The Parnitha NFP and the Samaria NFP have used an equal distribution of expenditures. In contrast, the Parnassos NFP has proposed larger funds of their expenditure targets in the past years. On the other hand, the Oitis NFP has ordered its expenditure target to gradually decrease (Table 1).

Table 1. Planning expenditure targets per year for each NFP being examined.

| NFP/Year | 2021 (in €) | 2022 (in €) | 2023 (in €) |
|-----------------------|-------------|-------------|-------------|
| Ainos ^{1,2} | 29,730,000 | 0 | 0 |
| Parnassos | 10,000,000 | 45,580,000 | 40,920,000 |
| Parnitha ¹ | 34,240,000 | 25,000,000 | 36,000,000 |
| Oitis | 30,526,000 | 28,165,000 | 15,974,500 |
| Olympus ¹ | 26,000,000 | 31,541,625 | 25,241,625 |
| Samaria | 30,636,500 | 22,118,300 | 35,731,190 |

¹ Their strategy program was lodged in 2021. ² The Ainos NFP has not established CF funding planning for 2022 and 2023.

All of the projects to be funded through the CFs relate to Act 085—protecting and enhancing biodiversity, nature conservation, and green infrastructure. Most of the assigned projects assist studies, habitat monitoring, and the management actions of protected species

and habitats in order to improve habitat knowledge and preserve flora and fauna, in addition to birds, amphibians, reptiles, lepidoptera, and mammals. Other projects and payments relate to the NFPs' underfunding over the past years. Indeed, some NFPs made indirect payments to their accounts, and a large amount of the used funds show substantial shortages of electronic equipment and teleconferencing systems, desktop computers, laser printers, global navigation and positioning systems (GPS). In addition to this, footwear and work clothes for the staff, vehicles, bank expenses, and past unpaid subscriptions to organizations, whose collaborations are considered crucial for international knowledge exchange and the progress of environmental actions within the limits of their responsibility.

By now, the average CF absorption rate of the NFPs being examined is low (10.3%); the Olympus, Ainos, and Parnassos NFPs have organized more projects and payments (Table 2). Indeed, their CF absorption rates were 16.32%, 14.29% and 1.42%, respectively, which is a significant result since Ainos and Parnassos belong to group 2020. Furthermore, it is noteworthy that the Samaria NFP has significantly low fund absorption, although its CF started in 2019, but this can be justified since its program predicts higher funding in 2023 (Table 1).

Table 2. Number of assigned projects and payments for each NFP being examined per year and the CF absorption rate.

| NFP | 2020 (in €) | 2021 (in €) | Total (in €) | CF Absorption Rate (%) |
|-----------------------|-------------|-------------|--------------|------------------------|
| Ainos | 7,516,840 | 6,772,099 | 14,288,939 | 14.29% |
| Parnassos | 1,537,814 | 11,878,834 | 13,416,648 | 13.42% |
| Parnitha ¹ | 0 | 0 | 0 | 0% |
| Oitis | 5,335,605 | 6,688,254 | 12,023,859 | 12.23% |
| Olympos | 8,861,980 | 7,460,871 | 16,322,851 | 16.32% |
| Samaria | 5,356,084 | 54,000 | 5,410,084 | 5.46% |
| Average | | | | 10.3% |

¹ Four published competitions in total for 92,842 EUR but no assignments were made.

By adding the number of assigned projects and payments and the CF absorption rate for each NFP into Excel, we found that the multiple R was 0.837, which means that there is a particularly high correlation coefficient between the two variables. Another important result is that the P value (significance F) for the model was 0.0769 with 95% confidence.

4. Discussion

This study has examined the many operational projects attempting to support the conservation of biodiversity and sustainability. Regarding supplies, most of the payments were for fundamental equipment such as teleconferencing equipment, desktop computers and vehicles. Minor differences have been found between group 2019 and group 2020.

Only two MBs have prepared equal distribution of expenditure; the Parnitha and Samaria NFP. Although the average CF absorption (10.3%) is in general low, we have to consider the fact that a few competitions did not lead to assignments and in several announced projects, the assignment and payment credit are pending. Therefore, we could not include their proposed costs. An important fact is that Ainos NFP and Parnassos NFP have organized plenty of projects and payments although they belong to group 2020. The survey proves that there is a particularly high correlation coefficient between the number of assigned projects and payments and CF absorption rate for each NFP (multiple R = 0.837).

5. Conclusions

The CF provides numerous opportunities to improve the protection and sustainable development of the NFPs of Greece. However, by the end of 2023, the MBs that have been examined should evaluate the progress and outcomes of the projects in order to improve their planning techniques.

It is recommended that each NFP prepares an operational program that may contain 35–50 projects since the funding period is three years. In addition, in a proposed operational project with 1,000,000 EUR, the MBs could use an equal distribution of the expenditure target, for instance 300,000 EUR per year and the last 400,000 EUR to achieve a better CF absorption rate.

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