



WWF Greece
Lembessi 21
Athens 11743

Tel: +30 210 3314893
Email: d.karavellas@wwf.gr
www.wwf.gr/en

To: Céline Gauer, Head of the Recovery and Resilience Task Force
celine.gauer@ec.europa.eu

CC: Felicia Stanesku, Head of Unit, Recovery and Resilience Taskforce
felicia.stanesku@ec.europa.eu

18 May 2021

Subject: WWF Briefing on the Greek NRRP

As the process of assessment of the proposed National Recovery and Resilience Plans (NRRP) by the services of the European Commission is well under way, we hereby wish to bring to your attention a number of serious concerns regarding the Greek NRRP. In the attached briefing, we focus on the Greek NRRP's potential to empower the green transition and the process to climate neutrality and on the decision-making process throughout its design.

Despite positive elements that are in line with WWF's proposals for a green recovery, our overall assessment is that:

- The entire process has unfortunately been characterized by complete lack of transparency, against the spirit and the letter of the RRF Regulation and the environmental *acquis communautaire*.
- Major gaps remain in the version of the NRRP which has been made public, rendering any detailed scrutiny of the plan impossible.
- The RRF funds dedicated to the green transition do not seem to respect the 37% minimum target, while a number of investments seem wrongly classified as "contributing to the green transition", and an analysis of the compatibility of reforms and investments with "do no significant harm criteria" (DNSH) is missing. Indeed, a number of reforms and investments do not seem compatible with DNSH criteria and should consequently be revised or rejected.
- There is no sufficient explanation of how the loans component of the RRF (approximately 1/3 of the funds Greece will mobilize) will be spent, and how 37% of the loan component will contribute to the green transition while doing no harm to environmental objectives as per the EU taxonomy regulation. Indeed both lending policies and safeguards are conspicuously absent from the text that was made public.
- The investments mobilized for the climate transition are far from transformational, present little additionality compared to Greece's existing NECP, and are thus unlikely to be a 'game changer' in terms of accelerating the energy transition.
- A number investments related to the green transition are characterized by poor policy design and targeting.
- There is a lack of hierarchy in identifying investments necessary for Greece to achieve a number of EU targets e.g. revised emissions reduction targets, farm-to-fork targets, 2030 biodiversity targets, water framework directive targets and recycling and circular economy targets.

- Based on the gaps identified, we highlight certain actions that we consider the European Commission should take into account when evaluating Greece's NRRP.

We ask the Commission to consider the points raised in our briefing during the assessment of the proposed Greek NRRP, with the aim of enhancing its potential for accelerating Greece's transition to climate neutrality and environmental sustainability more widely.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'D. Karavellas', is positioned above the typed name.

Demetres Karavellas,
CEO, WWF Greece



BRIEFING

Comments on Greece's Recovery and Resilience Plan

Overview

This briefing analyzes the components of Greece's NRRP which have been made public, with the objective of bringing to the attention of the European Commission a number of crucial elements, which need to be taken into account during the evaluation process of Greece's NRRP.

The NRRP certainly entails a number of positive investments and reforms, some of which are in line with the recommendations set out by WWF Greece in its *Blueprint for a green recovery*¹ and its detailed *Comments to the "Pissarides Commission" on Greece's Growth Strategy*.² The present document focuses however on flagging problematic aspects of Greece's NRRP particularly vis-à-vis green transition related expenditures and the application of the DNSH principle to the entirety of reforms and investments included in the recovery plan.

Our overall assessment is that:

- The entire process has unfortunately been characterized by a lack of transparency, against the spirit and the letter of the RRF Regulation and EU law.
- Major gaps remain in the version of the NRRP that has been made public, rendering any detailed scrutiny of the plan impossible.
- The RRF funds dedicated to the green transition do not seem to respect the 37% minimum target, while a number of investments seem wrongly classified as "contributing to the green transition", and an analysis of the compatibility of reforms and investments with "do no significant harm criteria" (DNSH) is missing. Indeed, a number of reforms and investments do not seem compatible with DNSH criteria and should consequently be revised or rejected.
- There is no sufficient explanation of how the loans component of the RRF (approximately 1/3 of the funds Greece will mobilize) will be spent, and how 37% of the loan component will contribute to the green transition while doing no harm to environmental objectives. Indeed both lending policies and safeguards are conspicuously absent from the text that was made public.
- The investments mobilized for the climate transition are far from transformational, present little additionality compared to Greece's existing NECP, and are thus unlikely to be a game changer in terms of accelerating the energy transition.
- A number investments related to the green transition are characterized by poor policy design and targeting.

¹ WWF Greece. (2020, October). *Blueprint for a green recovery*.

https://wwfeu.awsassets.panda.org/downloads/wwf_greece_green_recovery_report_eng.pdf

² WWF Greece. (2020, 24 Αυγούστου). Σχόλια στο «Σχέδιο ανάπτυξης για την ελληνική οικονομία».

https://wwfeu.awsassets.panda.org/downloads/sholia_sto_shedio_anaptyxis_gia_tin_elliniki_oikonomia.pdf

- There is a lack of hierarchy in identifying investments necessary for Greece to achieve a number of EU targets e.g. revised emissions reduction targets, farm-to-fork targets, 2030 biodiversity targets, water framework directive targets and recycling and circular economy targets.
- Based on the gaps identified, we highlight certain actions that we consider the European Commission should take into account when evaluating Greece's NRRP.

It should be noted that our assessment is based exclusively on publicly available information, and not the full plan that was submitted to the European Commission, as the latter has yet to be disclosed.

1. Transparency and public participation

According to article 18.4 (q) of the Recovery and Resilience Facility (RRF) regulation, National Recovery and Resilience Plans (NRRP) “*should set out the following elements: [...] for the preparation and, where available, for the implementation of the recovery and resilience plan, a summary of the consultation process, conducted in accordance with the national legal framework, of local and regional authorities, social partners, civil society organisations, youth organisations and other relevant stakeholders, and how the input of the stakeholders is reflected in the recovery and resilience plan*”.³

Further, “*the legal framework of the EU and Member States on transparency and public participation must be in line with the Aarhus Convention on access to information and public participation in decision-making as the EU and its Member States and Party to the Convention. In accordance with article 6 and 7 of the Aarhus Convention, plans such as NRRPs must be subject to early and effective public participation within reasonable time frames, allowing the public to be prepared and participate effectively during the decision-making process*”.⁴

Yet, the design of Greece's NRRP does not abide either with the RRF regulation or with the EU's legal acquis vis-à-vis transparency and consultation processes. Indeed the process has been characterized by complete opacity and intransparency.

First, **civil society organizations and wider stakeholders were not consulted during the design of Greece's (draft) NRRP throughout 2020**. According to leaked information, the first (draft) NRRP submitted to the European Commission on November 18th 2020 wrongly stated that “*on August 5th, 2020, all social partners, other key economic associations, NGOs and the federation of municipalities, 24 organisations in total, were requested by the Steering committee [on the NRRP] to provide by August 31st their ideas for the National Recovery and Resilience Plan. Out of the 24, 17 organizations responded by sending in their proposals which were all carefully studied by the drafting working groups of each pillar*”. Although we have no knowledge whether this point is included in the NRRP that was officially submitted to the European Commission, it is our duty to mention that to our knowledge no environmental NGO was requested to provide any input. Furthermore, WWF Greece is mentioned in the list of organizations that were requested to provide formal input, although no such request was ever received. The (draft) NRRP misleadingly mentioned that WWF Greece responded to a formal request for comments on October the 6th. WWF Greece indeed published its “*Blueprint for a green recovery*” report⁵ on 6 October 2020, but this report was published on WWF's own initiative i.e. not in response to any formal request.

³ Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility.

⁴ International Institute for Law and the Environment. (2021). Environmental rule of Law and National Recovery and Resilience Plans: Transparency and Public Participation. http://www.iidma.org/attachments/Publicaciones/Environmental_Rule_of_law_final.pdf

⁵ WWF Greece. (2020). Blueprint for a green recovery in Greece.

https://wwfeu.awsassets.panda.org/downloads/wwf_greece_green_recovery_report_eng.pdf

Second, not only were civil society organizations not actively consulted, but their active requests for more transparency and meetings either with the NRRP drafting committee or with relevant ministries remain to this day unanswered.

Third, the first (draft) NRRP submitted to the European Commission on November 18th 2020 mentioned that “*after the submission of the NRRP on November 18th, 2020, to the European authorities we plan to kick off a formal public consultation [...] initiated on November 25th, 2020*” with a mandate to obtain comments by December 20th 2020. Although a public consultation was indeed initiated on November 25th, the content of the consultation was not the 235-pages first (draft) NRRP submitted to the European Commission, but a general 40-page document entitled “*Strategic directions of the NRRP*”.⁶ This document provided extremely limited, broad-brush information on the content of the plan, rendering any detailed assessment and scrutiny impossible. Indicatively, the document excluded any information on Greece’s proposals for the use of the loans component of the RRF. In short, the public consultation failed to provide the necessary level of disclosure for civil society to evaluate the Greek government’s proposed NRRP. The fact that the (draft) NRRP was submitted to the European Commission one week before the public consultation commenced suggests that the government deliberately chose not to publicly disclose the full, draft plan.

Fourth, although a more comprehensive version of the final plan was eventually made public in April 2021,⁷ in view of its official submission to the European Commission, a) no formal public consultation was conducted on the final version and b) the plan published is characterized by serious gaps of crucial information (e.g. regarding the use of loans and the application of the DNSH principle), rendering once more detailed scrutiny impossible.

For all the above reasons, we consider that in matters of transparency and public participation, the process that has been followed goes against both the spirit and the letter of relevant EU legislation.

Last but not least, **it is evident that an eventual end-of-the-pipe public consultation on the full plan cannot substitute the absence of an ex ante engagement and participation process:** as a consequence of the tight timelines for the submission and approval of final NRRPs, civil society will likely be presented with a *fait accompli*, with limited possibilities to affect the final NRRP. Needless to say that the top down process followed to this date, characterized by limited input and support from the wider public and civil society, is not conducive to the creation of a necessary national consensus for the plan to be effectively implemented.

The following sections provide comments on the content of the information that has been disclosed on the NRRP, identifying problematic elements and key gaps while proposing adjustments.

2. Consistency of Greece’s NRRP with the RRF regulation

According the RRF regulation, at least 37% of funds claimed to the RRF need to be dedicated to climate target-related expenditures, as defined in Annex VI of the regulation. However, Greece’s NRRP does not seem to meet this target, as (a) climate-related expenditures seem to represent less than 37% of the grants component alone (i.e. ignoring the loan component) and (b) the plan seems to use a coefficient of 100% contribution to climate targets for all green transition related investments, in contradiction with Annex VI of the regulation; finally (c) the document which has been made public fails to provide any explanation on how individual measures satisfy the DNSH principle, as per article 19(3) of the RRF regulation.

⁶ Ministry of Economy. (2020, 25 November). Strategic directions of the National Recovery and Resilience Plan. <http://www.opengov.gr/minfin/wp-content/uploads/downloads/2020/11/Greece-RRP-EN-1.pdf>

⁷ Greek Government. (2021, 2 April). Ελλάδα 2.0 – Εθνικό Σχέδιο Ανάκαμψης και Ανθεκτικότητας. https://government.gov.gr/wp-content/uploads/2021/03/Ellada_2.0-analutikh_perigrafi_drasewn.pdf

Share of climate-related expenditures

The NRRP dedicates 6,026 billion EUR to the green transition (pillar 1), out of a total of 30.9 billion EUR of grants (18.1 billion EUR) and loans (12.7 billion EUR) claimed. As such, the green transition component represents less than 37% of grants and only 19% of the total funds, in direct contradiction with the RRF regulation.

Indeed, beyond general information, the plan does not specify the mechanisms through which the loans that Greece will receive via the RRF, will contribute to the green transition.

According to the NRRP the loans component is expected to be used for the provision of concessional lending and other forms of financing to the private sector, notably for financing investments that contribute to the green transition, digital transformation R&D and export activities.

However, the broad brush information provided by the NRRP does not specify the allocation of funds among these priorities, how will lending policies be designed to respect RRF targets, and whether and how “do not significant harm” prerequisites will be applicable when providing concessional loans to the private sector. This raises serious concerns, since the Greek State notoriously lacks the necessary operational capabilities for screening private sector investments based on their environmental performance, their contribution to climate targets, and “do no significant harm” safeguards at a micro level.

We urge the European Commission to scrutinize the use of proceeds from the loans that Greece will receive, and whether green transition investments and reforms add up to 37% of total funds provided by the RRF.

We further consider that using the loan component of the RRF to finance private sector investment should only be accepted if three key prerequisites are met:

- 1. The setting of clear and transparent lending policies, outlining how concessional loans to, and financing of, private sector investments will contribute to the green transition. Lending policies should be set on a sectoral basis.**
- 2. The setting of transparent “do no significant harm” safeguards for lending and other financial instruments, on a sectoral basis.**
- 3. An explanation of how lending policies and safeguards will be operationally managed (e.g. transparent ex ante and ex post verification practices) for avoiding abuse and greenwashing.**

Apportioning of climate-related expenditures

According to art 18(4) of the RRF Regulation, NRRPs need to provide an explanation of how measures contribute to the green transition based on the climate tracking that is detailed in Annex VI of the regulation.

The public version of Greece’s NRRP does not provide an analysis of the coefficients used to calculate the contribution of individual measures and reforms to the green transition component. Even worse, the NRRP seems to assume a 100% apportioning for all individual measures of Pillar 1, which blatantly contradicts the coefficients laid out in Annex VI of the regulation.

More concretely, a recent analysis of Greece's NRRP concludes that, when taking into account Annex VI coefficients, the total funds dedicated to the green transition as per Pillar 1 could amount to no more than 4.7 billion EUR i.e. 26% of grants and 15% of total RRF funds claimed.⁸

We urge the European Commission to scrutinize the coefficients used for calculating the contribution investments and reforms to the green transition, and whether these are compatible with the climate tracking methodology of Annex VI.

Application of the Do No Significant Harm (DNSH) principle

Article 18(4) of the RRF regulation states requires that NRRPs should provide an assessment explaining how the plan and individual measures abide to the “do no significant harm principle” as defined by article 19(3) of the regulation and Commission’s “Technical guidance on the application of “do no significant harm” under the Recovery and Resilience Facility Regulation”. This crucial information is missing in the document that Greece made public, hence impeding any proper assessment of individual measures. **As we detail below in the analysis of individual measures, a number of investments and reforms could potentially contravene the DNSH screening criteria of the RRF regulation.**

3. Assessment of individual reforms and investments

Energy transition related reforms and investments

As analyzed in detail in a previous report,⁹ Greece's National Energy and Climate Plan (NECP) has four major structural weaknesses, the tackling of which should be part of any recovery plan that genuinely seeks to accelerate Greece's climate transition:

1. It is unambitious on the energy efficiency front: despite theoretically achieving a target of 20% reduction of energy consumption relative to baseline growth, it is forecasted that Greece's final energy consumption in 2030 will essentially be at the level of 2018. This is unambitious compared to EU targets, which explicitly aim to achieve an absolute reduction of the EU's final energy consumption by 2030.
2. It pushes for significant investments in new fossil gas-powered plants and fossil gas infrastructure, as the main alternative to coal phase out: this option has a number of implications, among which (a) locking Greece into capital-intensive and carbon-intensive energy infrastructure for many decades, (b) investing in an energy source with significantly lower labour and domestic economic intensity compared to renewable, storage and demand management alternatives (i.e. low economic recovery potential), and (c) triggering a negative effect on the trade balance, hence on GDP, compared to clean energy alternatives.
3. It leaves very limited room for public participation in the energy transition via decentralized systems of energy generation: according to the NECP, out of the total 8GW of additional renewable installed capacity planned to 2030, only 600MW come from self-generation and energy communities (Greece's equivalent legal status of energy cooperatives). This strongly contrasts with other countries, such as Germany or Denmark, where the share of renewable capacity owned by individuals and cooperatives is significant (e.g. of more than 40% in Germany according to 2018 data).

⁸ Lalas, Dimitri. (2021, April 12). A review of the Greek Plan for the use of the RRF funds. <https://facets.gr/wp-content/uploads/2021/04/Greek-RRF-Plan-Final-Draft-Review-12April2021.pdf>

⁹ WWF Greece. (2020). Blueprint for a green recovery in Greece.

4. It is unambitious in reducing carbon emissions from transport: the NECP is notably based on a forecast of an increase of private passenger-miles throughout the period 2020-30. Based on the measures it proposes, the NECP forecasts an increase of the final energy consumption of transport by 1% to 2030, despite forecasting a reduction of Greece's population over the same period. Reducing emissions by switching private passenger-km to public ones in the transport mix is an essential policy component for reducing emissions. Although the NECP mentions a wide range of measures, it is in fact strongly reliant on a (relatively modest) uptake of private electric vehicles, and on the electrification of the, very limited, rail network

Given that the NECP will need to be revised anyway to meet the new EU Green Deal 2030 target, the question is whether Greece's NRRP addresses the structural weaknesses identified above, while presenting "additionality" relative to the NECP's original targets.

Regarding **energy efficiency related investments**, the amount budgeted seems substantially lower than what is needed to meet the EU's "renovation wave" targets and does not seem to provide any additionality relative to the NECP's original target of 60,000 building renovations per year until 2030. It is estimated that in order to achieve the EU's new 2030 climate target, at least 2% of the building stock needs to be retrofitted each year to 2030, which for Greece translates to 80,000 building renovations per year, on average. In short, the NRRP seems to limit itself to fulfilling the target of the existing, now obsolete, NECP. Further, Greece's energy efficiency schemes are designed on an inefficient "first come, first served" basis, a policy design that has been heavily criticized by a recent ECA report on a value-for-money basis.¹⁰ Yet, the NRRP provides no information on policy reforms for enhancing the cost effectiveness of public support schemes for energy efficiency.

Although it is positive that **new gas infrastructure** investments were eventually excluded from the NRRP, due to their incompatibility with the DNSH screening criteria of Annex II, the NRRP fails to harness the RRF for financing viable alternatives to fossil gas. Indeed, only 450 million EUR are dedicated to investments in new electricity storage facilities, an amount which is completely inadequate for Greece to minimize the need for further expansion of fossil gas production and distribution infrastructure. The NRRP is consequently failing to catalyze a fundamental transformation of Greece's energy system away from fossil fuels, despite the fact there is a strong economic case for doing so¹¹ as we analyze in detail in our *Blueprint for a green recovery* report (pp 32-33).¹²

Further the NRRP that has been submitted to the European Commission apparently includes support for investments in carbon **capture and storage (CCS)**, although details are not provided in the publicly available version. According to media reports,¹³ this measure aims to finance part of a 500 million USD project of a private company (Energean) for fossil gas based hydrogen ("blue hydrogen") and CCS in the area of Prinos. If the objective of the CCS component of this project is to indirectly enable the further penetration of fossil gas in Greece's energy mix, (a) it should not be included in the 37% of expenditures earmarked for the climate transition (Annex VI) and (b) could potentially be in contradiction with DNSH provisions of the RRF regulation. Beyond legal dimensions, it is crucial to note the following:

- Gas with CCS is an extremely costly and inefficient solution to reducing greenhouse gas emissions, and on a Levelised Cost of Energy (LCOE) basis compares poorly with renewable energy plus storage

¹⁰ European Court of Auditors (2020). Energy efficiency in buildings: greater focus on cost-effectiveness still needed. Special Report No 11/2020.

¹¹ Bloomberg New Energy Finance. (2020, September 21). Economics Alone Could Drive Greece to a Future Powered by Renewables. <https://about.bnef.com/blog/economics-alone-could-drive-greece-to-a-future-powered-by-renewables/>

¹² WWF Greece. (2020). Blueprint for a green recovery in Greece.

https://wwfeu.awsassets.panda.org/downloads/wwf_greece_green_recovery_report_eng.pdf

¹³ <https://www.bloomberg.com/news/articles/2021-02-25/energean-plans-500-million-greek-carbon-storage-and-h2-facility>

alternatives.¹⁴ This cost could eventually be passed onto consumers thus hindering the competitiveness of Greece's energy sector.

- Gas with CCS leads to considerably higher emissions than clean energy alternatives. According to existing research, gas plus CCS leads to average life cycle emission of 78gCO₂e/kWh which compares poorly to solar (6gCO₂e/kWh) or wind (4gCO₂e/kWh).¹⁵
 - Lifecycle methane emissions from gas with CCS remain entirely unclear, posing a barrier for a level playing field with renewable energy and contradicting both increased EU 2030 targets as well as the EU methane strategy.
 - CCS is not considered a central pillar of the energy transition, but a residual solution for sectors where no alternatives are viable. Such is evidently not the case of hydrogen, where clean energy alternatives exist - as exemplified by Portugal's push for green hydrogen.¹⁶
 - From a recovery standpoint, the labour intensity and value added footprint of such investments are considerably lower than clean energy alternatives.

The NRRP does not earmark any amount for promoting **decentralized energy systems** at a community level, notably as a strategy to reduce energy poverty, hence reproducing the pitfalls of the NECP on that front. As we analyze in our *Blueprint for a green recovery* report (pp 31-32), harnessing the RRF for financing the upfront capital costs of energy communities across Greece's local authorities (a) is necessary for enhancing public participation in the energy transition, (b) would ensure that the benefits of the recovery plan are spread across the territory and (c) could create more than 7000 FTE jobs across Greece.¹⁷

The NRRP entails a “**reform to address energy poverty**”, through the creation of a monitoring mechanism (with no budget), without earmarking any funds to *actually address* energy poverty. Both investments in energy efficiency, if properly targeted, and investments in energy communities, could be linked with a strategy to reduce energy poverty instead of focusing on a mere “monitoring mechanism”.

We ask the European Commission to consider the following in its evaluation of Greece's NRRP:

- **Energy efficiency investment schemes (for households, businesses and public buildings) should be significantly expanded through the RRF if Greece is to achieve the EU's new 2030 targets.**
- **The Greek government needs to present a credible reform for enhancing the value-for-money of its energy efficiency schemes, first by better targeting funds to energy poor households and second by maximizing the climate impacts of investments.**
- **If Greece is to avoid a substantial fossil gas lock-in, investments in fossil gas must be excluded, while investments in renewables plus storage facilities need to be substantial expanded. The RRF is a unique opportunity for doing so.**
- **A national investment plan for rolling out energy communities across all local authorities could be rolled out quickly (i.e. investment readiness) and should consequently be seriously considered. Such a plan can be linked to a strategy for reducing energy poverty.**

¹⁴ Sgouridis, S., Carbajales-Dale, M., Csala, D. et al. Comparative net energy analysis of renewable electricity and carbon capture and storage. *Nat Energy* 4, 456–465 (2019). <https://doi.org/10.1038/s41560-019-0365-7>

¹⁵ Pehl, M., Arvesen, A., Humpeöder, F. et al. Understanding future emissions from low-carbon power systems by integration of lifecycle assessment and integrated energy modelling. *Nat Energy* 2, 939–945 (2017). <https://doi.org/10.1038/s41560-017-0032-9>

¹⁶ Reuters (25/02/2021). Portugal sees green hydrogen output by end-2022, \$12 billion in investment lined up. <https://www.reuters.com/article/us-portugal-hydrogen-minister-exclusive-idUSKBN2AP2H4>

¹⁷ WWF, Greenpeace and Rescoop Europe (2020). The development of energy communities in Greece: challenges and proposals (in Greek).

https://www.eu.awsassets.panda.org/downloads/anaptiksi_ton_energeiakon_koinotiton_stin_ellada_prokliseis_kai_protaseis.pdf?fbclid=IwAR06BrO0b-E_MFKiDPMc--Znf-DgEZNnswHhU7jieTQZE3lrqu_rTWyJGgA

Transport related reforms and investments

The NRRP is as unambitious as the NECP in terms of accelerating the decarbonization of the transport system, and presents no additionality compared to the NECP's targets vis-à-vis the transport model.

In total only 520 million EUR are earmarked for investments dedicated to green the transport sector, split between a number of interventions such as replacing an unspecified proportion of the bus and taxi fleets with electric vehicles, charging infrastructure, the upgrading of the existing rail network, the creation of one new metropolitan rail line and (unspecified) investments for reducing shipping emissions.

Although these are climate-positive investments they pale in comparison to investments requirements for genuinely greening the transport system. If the ambition is not significantly ramped up, Greece will be unable to reach the EU's 2030 climate target. Any serious recovery strategy aiming to green the transport model should at minimum include investments that:

1. Significantly increase the availability of public transport for reducing private passenger-miles.
2. Encourage shared transport models, micromobility and active mobility infrastructure, particularly in urban areas.
3. Promote electric mobility.
4. Expand the passenger and freight rail network.

Of all those elements, the NRRP only partially addresses the promotion of electric mobility while ignoring other dimensions. At this stage it is worth reminding the following:

- Increasing investment in public transport has, by far, the largest recovery potential in terms of job creation and value added, beyond the obvious energy savings derived from reducing private passenger-miles.¹⁸
- According to the OECD, Greece consistently invests less than EU average (as a proportion GDP) in public transport.
- According to the World Economic Forum, limited railway infrastructure is a major reason for Greece's low competitiveness.¹⁹
- The external cost of Greece's road transport in terms of carbon emissions has been estimated to 1.8 billion EUR per annum (0.88% of GDP), while the cost of air pollution (a substantial fraction of which emanates from road transport) in terms of premature mortality is among the highest in the EU.²⁰

In short, there is a strong economic, social and environmental case for significantly increasing the amount earmarked in the NRRP for greening the transport system. In our *Blueprint for a green recovery report* we estimate that using 1.9 billion EUR of RFF funds for investing in public transport, shared transport and micromobility infrastructure, e-mobility and rail network infrastructure could create approximately 30.000 new FTE jobs.²¹

Given the crucial importance of reducing emissions for transport if Greece is to meet the EU's 2030 climate target, we urge the European Commission to recommend to the Greek government a significant increase of investments dedicated to greening the transport system.

¹⁸ United Nations economic commission for Europe and International Labor Organization (2020). Jobs in green and healthy transport Making the green shift. <https://thepep.unece.org/sites/default/files/2020-05/THEPEP%20-%20Green%20jobs%20in%20transport.pdf>

¹⁹ World Economic Forum (2018). Global competitiveness report.

²⁰ European Commission. Sustainable transport: Internalisation of transport external costs. https://ec.europa.eu/transport/themes/sustainable/internalisation-transport-external-costs_en

²¹ WWF Greece. (2020). Blueprint for a green recovery in Greece.

https://wwfeu.awsassets.panda.org/downloads/wwf_greece_green_recovery_report_eng.pdf

Circular economy related reforms and investments

The NRRP does not mobilize any significant funds for improving waste management and accelerating the shift to a circular economy. On the waste management front it only includes a reform (with a zero budget allocation) of the waste management system, while on the circular economy front it only mobilizes 100 million EUR for the environmental upgrading of industrial parks.

Given Greece's poor performance against virtually all waste management and circular economy indicators, we consider that the absence of significant investments and reforms is a huge missed opportunity and highlights a lack of ambition.

It must be stressed that according to EU legislation, Greece needs to attain a 55% municipal waste recycling target by 2025 and 65% by 2035. Given Greece's starting point as the worst performer of the EU, this goal is unrealistic unless significant recycling and reuse infrastructure is rolled out over the next four years.

Based on a European Commission report,²² we estimate that achieving the 2025 target entails investment needs of 1.6 billion EUR for waste collection infrastructure, biowaste treatment (composting), waste sorting, recycling and reprocessing, residual treatment, and finally the creation of a digital waste registry. Note that according to the European Commission only a small proportion (less than 3%) of investments should be allocated to residual treatment, such as Mechanical Biological Treatment (MBT), and virtually none to new incineration ("waste-to-energy") infrastructure projects, that are considered as "inferior" solutions in the waste hierarchy. This contrasts with the new waste management plan put forward by the Greek government,²³ which disproportionally channels investments precisely towards lower tiers of the waste hierarchy (75.59% of total investments to 2030) while disregarding investment needs in the upper tier (20.43% of total investments to 2030). The RRF should be seen as an opportunity to shift Greece's waste management plan by investing in infrastructure in the upper tiers of the waste hierarchy.

From a recovery standpoint, all evidence suggests that investment in waste management and circular economy infrastructure presents higher than average employment and gross value added potential, particularly when focusing on the upper tiers of the waste hierarchy.²⁴ There is consequently no socio-economic rationale for excluding these necessary investments from Greece's NRRP.

As such, we urge the European Commission to (a) scrutinize the (major) absence of waste management and circular economy related investments in the NRRP, and (b) strongly recommend the mobilization of RRF funds for financing the necessary infrastructure to achieve the EU's 2025 municipal waste targets.

Spatial planning reforms

The spatial planning reforms (both terrestrial and maritime) of pillar 1.2 blatantly lack environmental dimensions. For example, Maritime Spatial Planning is explicitly referred to as a measure aiming to "attract investment in offshore renewables" or "aquaculture" without any mention of marine biodiversity protection and ecosystem restoration, or any focus on the environmental sustainability dimensions of blue economy sectors. The same holds for terrestrial spatial planning, particularly concerning tourism development. The

²² European Commission (2019) Study on investment needs in the waste sector and on the financing of municipal waste management in Member States.

²³ Hellenic Republic (2020). National plan for waste management 2020-2030

²⁴ GHK. (2011, July 19). Evaluating the Potential for Green Jobs in the next Multi-annual Financial Framework.

http://awsassets.panda.org/downloads/investing_for_the_future___more_jobs_out_of_a_greener_eu_budget___summary.pdf

absence of any mention of environmental sustainability dimensions goes against the spirit of the EU's sustainable blue economy goals, and arguably against the letter of DNSH criteria of the RRF regulation.

Biodiversity and ecosystems conservation and restoration need to be explicitly part and parcel of spatial planning reform. As such we urge the European Commission to further scrutinize these reforms, and align them with relevant EU policies and legislation.

Investments in the agro-food sector

The 520 million EUR investment programme and upgrading agricultural production by promoting among others “green and precision agriculture” is positive on paper, however the NRRP is extremely thin on the actual content of the programme.

First, there isn't a single mention of the EU's “farm to fork” strategy to 2030, and how the proposed measures will contribute to key targets set out by the strategy.

Second, we should remind that one of the flagship targets is for at least 25% of the EU's agricultural land to be under organic farming by 2030. For Greece, this would imply tripling the proportion of farmland under organic production in less than a decade. However the proposed investment programme fails to mention organic agriculture. In our estimation, a national investment programme aiming to cover the upfront transition costs for doubling the share of farmland under organic production, in order to accelerate the pace for reaching the EU's 2030 target, could cost 147 million EUR.

As such, we urge the European Commission to examine the extent to which the proposed investment programme contributes to the achievement of the EU's farm-to-fork targets, and how, in order to ensure its alignment with the latter.

Flood protection related investments

Investing in flood prevention is considered a priority by the latest EU semester report. At the same time, the implementation of the Water Framework Directive (WFD) is facing significant delays, while only 49% and 6% of natural surfaces water bodies and heavily modified or artificial surface bodies respectively, have achieved a good ecological status.²⁵

While we consider positive the inclusion of flood risk reduction investments in the NRRP, it is crucial to ensure that those investments do not lead to “grey” infrastructure (e.g. dykes creation, strengthening of river banks and river beds with gabions, construction cantilevers, and dams), as the latter are both ineffective from a flood resilience standpoint²⁶ and harmful for the achievement of the WFD's and other EU biodiversity targets. For example, the “construction of new dams” for irrigation and flood protection purposes, mentioned in the NRRP, contradicts the EU biodiversity strategy target of restoring at least 25,000 km of rivers into free flowing rivers by 2030 and should consequently fail a DNSH screening.

Instead the RRF should be harnessed for investments in nature-based solutions (NBS), including among others the restoring of river to initial widths, restoration of river banks with riparian vegetation, reconnection

²⁵ European Commission. (2017). The EU Environmental Implementation Review Country Report – GREECE. Accompanying The EU Environmental Implementation Review: Common Challenges and how to combine efforts to deliver better results (SWD (2017) 39 final)

²⁶ Dottori F, Mentaschi L, Bianchi A, Alfieri L and Feyen L, Adapting to rising river flood risk in the EU under climate change, EUR 29955 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-12946-2 , doi:10.2760/14505, JRC118425

of rivers to floodplains and retention areas, and other green/blue infrastructure which according to the European Environment Agency²⁷ and the Joint Research Center²⁸ are both more cost effective and contribute to WFD targets.

In our *Blueprint for a green recovery report*, we notably estimate that a 110 million EUR investment programme would be needed for the restoration of natural retention areas alone in order to significantly enhance Greece's resilience to floods. Yet, the NRRP plans to mobilize a total of 110 million EUR for a multi-purpose programme aiming to "reduce the risk of flooding, supplying water for irrigation and improving water management in drought stress areas". This amount seems insufficient if the objective is to genuinely enhance Greece's resilience to floods.

We urge the European Commission (a) to insist on the alignment of flood protection investments with best available NBS practices, (b) to ensure that flood protection investments do no harm to the achievement of WFD targets and (c) to assess whether the funds earmarked are sufficient to achieve the desired objectives.

Civil protection (fire protection) related investments

The NRRP plans to mobilize approximately 250 million EUR for civil protection infrastructure, in an effort of increasing the country's resilience to forest fires. In principle, this is a positive measure. However, all the investments planned place a disproportionate emphasis on suppression versus prevention, thus reproducing the ineffective nature of the current approach to forest fires. Indeed, the sector programme for civil protection for the MFF 2021-27 already plans to mobilize a large proportion of total funds available (757 million EUR) for enhancing suppression mechanisms.

As evidenced in WWF's *The Mediterranean Burns* report, prevention measures to reduce the flammability of landscapes, among others by investing in active forest management, are necessary components of any serious strategy for enhancing the resilience of Mediterranean countries to forest fires.²⁹

Similar conclusions were reached by the Goldammer Commission report on forest fires in Greece, which explicitly mentions that, among others, "*the shortcomings of effective prevention efforts, within the current system, can be attributed to [...] the great discrepancy in the funds allocated to prevention in relation to the funds allocated to the suppression of fires*" and that "*the increase of accumulation and continuity of burnable vegetation (wildfire fuels) as a consequence of the abandonment of intensive land-use in the countryside and the lack of forest management due to limited availability of funds and institutional strength, is crucial*".³⁰

We maintain that RRF funds should be mobilized for funding more effective forest fire prevention mechanisms, notably towards active forest management, instead of merely pumping funds into fire suppression mechanisms that have, by and large, proven ineffective.

We urge the European Commission to: (a) question the cost effectiveness of proposed forest fire protection related investments, (b) examine whether prevention alternatives were considered by

²⁷ Dige, Gorm & Eichler, Lisa & Vermeulen, Jurgen & Ferreira, Alipio & Rademaekers, Koen & Adriaenssens, Veronique & Kolaszewska, Dagna. (2017). Green Infrastructure and Flood Management — promoting cost-efficient flood risk reduction via green infrastructure solutions. European Environment Agency, Report No 14/2017

²⁸ WWF Greece. (2020). *Blueprint for a green recovery in Greece*.
https://wwfeu.awsassets.panda.org/downloads/wwf_greece_green_recovery_report_eng.pdf

²⁹ WWF. (2019). *The Mediterranean burns: WWF's Mediterranean proposal for the prevention of rural fires*.
http://awsassets.panda.org/downloads/wwf_the_mediterranean_burns_2019_eng_final.pdf

³⁰ Greek Government. (2019, February 2). *Independent Committee Report on Landscape Fires in Greece*.
<https://government.gov.gr/report-on-landscape-fires-in-greece/>

the government, and (c) propose a better balance between funds dedicated to suppression and prevention in line with best available evidence and scientific recommendations.

Biodiversity related investments and reforms

Although we clearly welcome the inclusion of biodiversity related investments and reforms in the NRRP, the investments and reforms mentioned in the public version of the NRRP appear to lack prioritisation of funding needs relative to national strategies and EU targets to 2030. Further, the document made public is extremely thin on details, despite our repeated calls for the Ministry of the Environment to publish the list of projects it intends to include in the NRRP.

The public version of the NRRP states that 100 million EUR (0.3% of the NRRP) will fund a budget line that consists of a catalogue of apparently unrelated measures including “*the creation of a national network of hiking trails and routes, the restoration of terraces (dry stones), the creation of a museum of national history, the digitalization of natural history collections, the establishment of a monitoring system for species, habitats and protected areas, and other [unspecified in the text made public] measures for the protection of biodiversity*”.

Although certain components are indeed important (e.g. the establishment of a monitoring system for species, habitats and protected areas and the digitization of collections of Greek natural history), it is more than doubtful that this list of measures is anywhere close to sufficient, or well targeted, for Greece to achieve the 2030 biodiversity targets.

First, these measures do not take into consideration the significant additional investments needed for achieving the target of effective protection of 30% of the EU's land and marine area, the restoration of degraded ecosystems (e.g. coastal ecosystems) and the creation of ecological corridors between protected areas for creating a genuine Trans-European Nature Network.³¹ In fact the NRRP fails to link the proposed measures with 2030 targets, explaining how and to what extent they significantly contribute to the achievement of those targets.

Second, the NRRP fails to link proposed investments with the Priority Action Framework (2021-2027) for the Natura 2000 network, which estimates financing needs among others for: enhancing the management effectiveness of the network, transitioning economic activities within the network to more sustainable practices, the improvement of the conservation status of species and habitats, and mitigating the impacts of climate change. The Priority Action Framework estimates financing needs of approximately 1 billion EUR over the period 2021-27.³²

Third the NRRP does not seem to dedicate any amount for investments in Greece's marine protected areas (MPAs), which remain “paper parks” as extensively analyzed in our *Blueprint for green recovery report* (pp 50-52). More broadly, the significant investment needs for enhancing the sustainability of blue economy sectors, such as investments and reforms for reducing fishing pressures on marine ecosystems (pp 56-57), are completely ignored in the NRRP.

Fourth, the lack of resources dedicated to biodiversity conservation and restoration is evident. In comparison, we estimate that closing the investment gap in Marine Protected Areas (MPAs), by focusing on one-off upfront investments in necessary infrastructure and restoration activities, would cost

³¹ European Commission. (2020, May 20). EU Biodiversity Strategy.

³² Υπουργείο Περιβάλλοντος και Ενέργειας (2021). Πλαίσιο δράσεων προτεραιότητας για το δίκτυο NATURA 2000 στην Ελλάδα σύμφωνα με το άρθρο 8 της Οδηγίας 92/43/ΕΟΚ του Συμβουλίου για τη διατήρηση των φυσικών οικοτόπων καθώς και της άγριας πανίδας και χλωρίδας («Οδηγία για τους οικοτόπους») για την περίοδο του πολυετούς δημοσιονομικού πλαισίου 2021–2027. https://edozoume.gr/wp-content/uploads/2021/03/PAF-EL_FINAL.pdf

approximately 100 million EUR alone. Further, forest restoration within the Natura 2000 network could cost up to 206 million EUR.³³

Fifth, based on Annex VI or the RRF regulation, it is doubtful whether investments in items such as natural history museums (regardless of their indisputable overall significance) can be classified as contributions to the green transition.

We urge the European Commission to (a) scrutinize the Greek NRRP as to whether and to what extent the selected interventions are expected to materially contribute to the achievement of 2030 biodiversity strategy targets, (b) carefully assess the significant gaps and the basis upon which these measures were selected against alternatives, and (c) propose to the Greek government an increase of biodiversity related expenditures, notably with the aim of closing the significant investment gaps that concern protected areas, both on land and the sea.

Private investments and competitiveness (Pillar 4)

Pillar 4 of the NRRP entails a number of investment plans and reforms that could significantly affect environmental outcomes and should consequently be object of a DNSH assessment.

On a sectoral basis, for instance, the investment programmes to support **aquaculture and tourism related infrastructures entail no mention of screening criteria that are aligned with the sustainable blue economy finance principles** that the European Commission has endorsed and promoted.³⁴ Similarly, in its *Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a new approach for a sustainable blue economy in the EU*, the European Commission stated that “[...] public authorities should oversee the transition and make sure that the Blue Economy can recover speedily and fairly from the crisis, contribute to the European Green Deal (with particular regard to greenhouse gas emissions, circular economy, sustainable food systems and biodiversity), and become truly sustainable from an environmental, economic and social perspective”.³⁵

The investment plans proposed in the NRRP do not seem aligned with this roadmap, despite the existence of tools that can be used to screen blue economy related investments. Further, indiscriminate investments in these sectors could contravene the DNSH screening criteria, and more specifically article 17(1) of the Taxonomy regulation which binds the RRF regulation.³⁶

A recent UNEP report developed a screening methodology to ensure that investments in blue economy sectors are channeled towards sustainable practices that can allow a genuinely sustainable recovery of blue economy sectors.³⁷ This methodology should form the basis to develop screening criteria for any investments channeled towards respective blue economy sectors.

The reforms of pillar 4.7 entail numerous licensing “simplifications” for new investments. **When evaluating Greece’s NRRP, the European Commission needs to ensure that these reforms do not result in deregulation of environmental licensing procedures.** As documented since 2010 in WWF’s annual

³³ See pages 50-57 of WWF Greece’s “Blueprint for a green recovery in Greece”

³⁴ UNEP Finance Initiative. (2018). Sustainable Blue Economy Finance Principles. <https://www.unepfi.org/blue-finance/the-principles/>

³⁵ European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a new approach for a sustainable blue economy in the EU. [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=PI_COM:Ares\(2020\)5477619&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=PI_COM:Ares(2020)5477619&from=EN)

³⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020R0852&from=EN#d1e2492-13-1>

³⁷ UN Environmental Programme. (2021, March). Turning the tide: How to finance a sustainable ocean recovery. <https://www.unepfi.org/publications/turning-the-tide/>

reviews of environmental legislation in Greece,³⁸ reforms undertaken during the previous crisis significantly weakened environmental regulation, licensing procedures, and the environmental inspection regime, placing a heavy toll on marine, coastal and forest ecosystems. Any repetition of these misguided reforms would jeopardize the prospects for a genuinely nature positive recovery, and would arguably be against the letter of DNSH criteria of the RRF regulation.

Furthermore, we remind that available empirical evidence from the European Environment Agency³⁹ and the OECD⁴⁰ suggests that the stringency of environmental regulation has no negative impact on competitiveness. In fact, evidence suggests that the opposite may be true.⁴¹

Particular emphasis should be placed on scrutinizing the “reform of the law on strategic investments” (law 4608/2019) that was originally set in 2010 (“fast track” law 3894/2010), and which has provided tax (and other) incentives for investments that resulted in extremely negative environmental outcomes across Greece. Any reform to this law should strengthen existing environmental criteria and follow the recommendations of the Pissarides commission’s *Growth Plan for Greece* (pp 132) which states that “*the provision of State support should be avoided for activities that trigger negative externalities to the economy, including negative environmental externalities*”.⁴²

We urge the European Commission to:

- a) Request the setting of specific screening criteria for blue economy related investments, such as aquaculture and tourism related infrastructures, in order to promote a genuinely nature positive recovery of respective blue economy sectors.**
- b) Reject any reform that may result in a deregulation of environmental legislation, in particular vis-à-vis environmental licensing.**
- c) Ensure that flagship reforms, such as reforms to the law on strategic investments, strengthen environmental screening criteria while avoiding the provision of incentives for activities with significant negative externalities on climate targets, ecosystems and biodiversity.**

Contact: Olivier Vardakoulias, Lead Economist, WWF Greece / o.vardakoulias@wwf.gr

³⁸ WWF Greece. (2019). Η περιβαλλοντική νομοθεσία στην Ελλάδα.

https://www.contentarchive.wwf.gr/images/pdfs/WWF_NOMO2019.pdf

³⁹ European environment Agency. (2019, April 25). The European environment – state and outlook.

<https://www.eea.europa.eu/publications/soer-2020>

⁴⁰ The Economist. (2015, January 3). Green tape. <https://www.economist.com/finance-and-economics/2014/12/30/green-tape?fsrc=scn%2Ftw%2Fte%2Fpe%2Fgreentape>

⁴¹ EEA. Demanding environmental policy is associated with greater competitiveness and more eco-innovation in EEA member countries. <https://www.eea.europa.eu/data-and-maps/figures/demanding-environmental-policy-is-associated>

⁴² Pissarides Commission. (2020). Σχέδιο ανάπτυξης για την Ελληνική Οικονομία – Τελική έκθεση. https://government.gov.gr/wp-content/uploads/2020/11/growth_plan_2020-11-23_1021.pdf