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JUST TRANSITION

AND EMPLOYMENT IN GREECE

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This project study was developed by LDK Consultants on account of WWF Greece.

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WWF's mission consists in averting degradation of the natural environment as well as building a future of harmonious coexistence of humans and nature by consolidating biodiversity, securing a sustainable use of renewable natural resources whilst also promoting a reduction of pollution and the containment of unpondered consumption.

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INTRODUCTION

In his address to the 74th UN General Assembly, on the 23d of September 2019, the Greek Prime Minister amongst other announced the closure of the lignite-fired power plants by 2028 along with an increase of renewable power generation at 35% in final consumption, by 2030¹.

That context was to be further specified upon announcement of the closure of all operating lignite-fired by 2023, with the exception of the “Ptolemaïs V” lignite-fired plant, projected to remain in operation through to 2028.

As a way of assisting towards the completion of such procedure, the Council of Ministers proceeded on 23.12.2019 to set up a governmental monitoring committee dubbed “ΣΔΑΜ” (Greek acronym for “Just Transition Development Plan”) by virtue of Council of Ministers Act No. 52/23.12.19 (published in Issue No. 213/A/24.12.2019 of the Official Journal of the Hellenic Government) and Act 1/2020 (Issue No. 26/A/07.02.2020).

WWF Greece has from the onset been quick in hailing such a bold first step taken by the Greek Government, eventually stressing that strategic decisions now to be made shall be absolutely determinant towards attaining the ultimate objective: producing power 100% based on renewable resources, zero or net-zero greenhouse gas emission, within the shortest time brackets possible².

As a minimal – and nonetheless critical – contribution to the lignite phase-out process, WWF Greece has made a duty of the mission to share in the best possible way in the process of just transition, of those communities that have for several decades pioneered electrification of this country. The purpose of the present project study and the assorted report is therefore to buttress the effort of helping out lignite regions in Greece by way of creation of jobs as well as by developing the potential for growth of a lively economy.

CLIMATE CRISIS

In recent years, mankind has become witness of extreme weather events and disasters that would have until recently seemed unfathomable. The planet’s average temperature has already risen by 1.1°C compared to pre-industrial levels, so much that at the current pace, it is expected to go up by 1.5°C sometime between 2030 and 2050. Greenhouse gases generated as part of the process of power generation through combustion of fossil fuels, intensive animal farming and the destruction of natural ecosystems such as forests and oceans, feature amongst the main causes for such situation. Commitments made by the states under the Paris Agreement, towards pursuing efforts to limit temperature rise to 1.5°C have eventually been proven not to be up to the level of today’s critical circumstances. As a matter of fact, under the current commitments, the rise of the planet’s average temperature should be expected to exceed +3°C between now and the end of this century, leading to an uncharted territory of uncontrollable and extremely unpredictable consequences. Ours is the first generation of humans to acknowledge the issue and the last one in a position to act on it. It is no less true, however, that we are caught amidst an unprecedented health crisis, caused by a pandemic bound to rapidly alter circumstances.

Policies adopted towards managing the climate crisis are meant to set the context for a gradual phase-out of our dependence on fossil fuels before 2050. A just transition to the new era of climate neutrality, of communities depending on lignite, is a duty to which each and every one of us is expected to respond, if we are all to aspire to a better future.

¹ Νέα πολιτική για Κλίμα και Ενέργεια ανήγγειλε ο Μητσοτάκης – τέλος ο λιγνίτης το 2028 – (A new policy on climate heralded by Mitsotakis) <https://www.euractiv.gr/section/periballon/news/nea-politiki-gia-klima-kai-energeia-aniggeile-o-mitsotakis-telos-o-lignitis-to-2028/>

² WWF Greece. (2019, 24 Sept). Το μετέωρο βήμα της απανθρακοποίησης (The hesitant steps towards carbon phase-out). <https://contentarchive.wwf.gr/news/2309-to-pto-meteoro-vima-tis-apanthrakopoiisis>

JUST TRANSITION – LIGNITE PHASE-OUT

Shifting towards cleaner energy resources and moving away from fossil fuels becomes urgent under the pressure of the critical juncture the climate crisis has triggered. A disorderly, not appropriately prepared transition that comes not as a result of consensual projection runs the risk of generating grave social and financial consequences without ruling out the possibility of averring itself to be inefficient.

Ours is a vision of a future having a positive impact on workers and economies alike, leaving no-one behind. This is a future to be projected jointly with local communities, all the more since any project implying radical changes should be expected to count on the unwavering support of the local context. To be successful, any process aiming at energy transition needs to be articulated around people, a fact we have made a point of stressing: as such, processes of the kind are expected to be inclusive and transparent, relying on a clear-cut schedule for the completion of the lignite phase-out, involving the Public Power Corporation (PPC) as a point of reference within the coal regions, as well as ensuring sufficient and flexible funding, a condition for everyone to be able to share in the benefits of the process. Efficiency of the process is conditional on a reliable and efficient administration/ governance plan for lignite phase-out. What is more, energy transition should also be compatible with climate neutrality objectives: inciting towards investments in clean energy sources, circular economy, energy efficiency as well as shunning any choices involving fossil fuels (e.g. fossil gas-fired plants or infrastructures ea.)

By WWF Greece, there are three fundamental aspects any lignite phase-out process ought to comprise:

1. A mid-to-long term strategy towards a productive upturn of lignite areas, by way of new investments
2. Short-term management of dire consequences
3. Effective participation of local communities.

FRAMEWORK OF THE PROJECT STUDY

WWF Greece's project study was developed within the framework of the project dubbed "*Just Transition for the East and South of Europe*", in cooperation with LDK Consultants, an agency specializing in consulting.

Such project study has essentially been structured along two main pillars, namely:

- Direct/short-term impacts lignite phase-out is bound to have on employment. In that sense, the study delves into the primary consequences of such process as well as formulating proposals towards an eventual smoothening of the process over the particular transition period (2020 – 2023) as far as job retention is concerned.
- Mid and long-term consequences and proposals towards an efficient implementation of a smooth transition, leaving no-one behind (over the period from 2023 on).

Project Identity

"Just Transition for the East and South of Europe" is a project co-developed in 2017 by WWF Greece which, closely cooperating with WWF Germany, WWF Bulgaria and WWF Poland, aimed at ensuring a smooth transition of coal regions to the post-coal era as well as supporting local communities. Within the framework of such project, we proceeded to the elaboration of a detailed study under the rubric of "Just Transition and Employment in Greece", the conclusions of which have since become available online and are hereafter summarily put forward, as part of WWF Greece's contribution to the process of just transition. The centerpiece of said study is the procedure and milestones of the lignite phase-out process, considered against the background of the impact such phase-out is bound to have on employment, as well as the critical conditions to be met for the lignite phase-out to roll out seamlessly for the workforce and the local economy, as a whole.

MAIN CONCLUSIONS

Besides losses in jobs over the past years as a consequence of the shrinking lignite-fired activity, **some 2.200 workers are estimated to be in imminent threat of going out of employment in both regions considered, of which 1.833 alone dwell in the region of Western Macedonia (RWM) and with further repercussions potentially to occur on as many as 6.000 further jobs (as a result of the activation of multipliers)**. In the light of such considerations -and should the worst-case scenario of 1.833 jobs proving impossible to preserve, come to materialize -, as many as 8.000 jobs might just as well come to be impacted.

A series of fundamental conclusions have come to be drawn from said study, namely:

- 2020-2023 is a critical period, in that it heralds the launching of the process of withdrawal of a total 3.35 GW (Gigawatt) from the lignite-fired plants currently in operation. Such process requires a serious upfront effort towards preserving jobs as well as averting a potential loss of income, having in perspective the 2023-2028 period during which the power production mix is expected to be modified, by way of a drastic shift towards RES and as of which the local and regional economy is expected to be reorganized on the basis of orientations formulated under the proposed governmental Master Plan.
- The role of the Public Power Corporation (PPC) in this particular process is of extremely high importance, given that PPC is the proprietor of vast terrains within lignite zones, the use of which shall be determinant for the local as well as the regional development, provided an appropriate cooperation scheme is put in place (for instance, by way of implementation of projects towards a rehabilitation, further development of energy-related activities, utilization of RES through energy communities ea.).
- Within the context of putting to practice such commitments, as well as in view of the relevant policies to be developed, human resources and the parameter of valorisation and upgrading of skills aver itself to be of paramount importance towards the preservation and development of jobs and in order for the regional and most particularly of the local development model to be assisted in its process of transformation.
- When it comes to human resources, the gravity of the issue is different from one region to the next, hence the need for differentiated management strategies. Data available in this matter suggest that the Regional Unit (RU) of Kozani is the one most affected by such situation.
- Yet another critical issue is the degree of relevance of jobs to be created under the projected investment, to those jobs (directly or indirectly) affected. Estimates have it that some 2.200 workers in the two Regions are directly exposed to the risk, of which some 1.850 workers alone live in the Region of Western Macedonia. What follows is an enumeration of the professional categories – subcontractors and seasonal workers – expected to be impacted by such developments:

PPC Subcontractors	Seasonal Workers
<ul style="list-style-type: none"> • Qualified Drivers, Engine Attendants – Machinery Operators • Qualified Construction Technicians • Qualified Technicians • Unskilled Workers 	<ul style="list-style-type: none"> • Qualified Technical Projects Machinery Operators • Qualified Installation Electrical Technicians • Qualified Installations Machinery and Equipment Technicians • Qualified Drivers, Engine Attendants – Machinery Operators • Qualified Electronics Specialists • Qualified Technicians • Qualified Assistant Drivers, Engine Attendants – Machinery Operators • Basic-Skilled Workers

Furthermore, when it comes to indirect consequences, it is estimated that:

- Local communities within the region of Western Macedonia will suffer income losses of some €3,1 for every € 1 taken off the lignite-fired activity. For the Regional Unit of Arcadia, income losses should be of € 1,7.
- Some 30% of directly impacted workers should be expected to find employment under the projected investment scheme, once the relevant projects have become operational. Referent to the new jobs expected to be (directly or indirectly) created:
 - 80% concern short-term unemployed workers
 - 15% account for transfers to related sectors and labour mobility
 - 5% concern qualified staff currently available

More specifically as far as workers directly affected are concerned, interventions meant to support and promote employment are to take into account age tiering and the potential for retraining in related professions, which implies that:

- Projection requirements are not uniform for all age groups, all the more since there is low academic background and given the vertical specialization of a considerable proportion of those affected. There are constraints definitely to be taken into account.
- There is a serious risk for outflows amongst those under 35 as well as the imminence of unemployment for those above 45 years.

As far as those directly impacted are concerned, certain combined interventions shall be required to help upgrade skills as well as for the boosting of employment and entrepreneurship: a joint syllabus for skill development does not necessarily mean the content fits all groups. Training should be practical, swift and feature short scale programs.

For certain types of (both directly and indirectly impacted) parties, boosting entrepreneurship seems to be the prevalent objective, conditional on:


- combined interventions eventually necessary to buttress innovative entrepreneurship as well as allowing for transformation of those businesses directly impacted;
- an assertive encouragement of extroversion (in the region of Western Macedonia), especially throughout the Balkans, towards providing services based on the knowhow already available, should be incentivized

As far as such categories are concerned, training on generic as well as on specialized forms of entrepreneurship (e.g. collaborative schemes) ought to come as a complement to the training to be provided towards the development of new skills, as an objective of new or related activities.

Projection and intervention guidance on all of the above aspects to be provided for the Region of Western Macedonia should be different from the guidance meant for the Region of the Peloponnese, hence the need for qualification and further targeting of proposals on the just territorial transition plans.

The time variant is of critical importance for the human capital. As explained below, the whole exercise is structured over three critical terms or milestones, starting with the launching point:

Launching Point 2020	Transition Period (2021-2023)	Development Period (2023 and on)
<ul style="list-style-type: none"> ○ ~2.200 directly impacted jobs ○ Projection of a safety net ○ Establishment of a collaborative governance scheme to the purpose of 	<ul style="list-style-type: none"> ○ Labor subsidies. ○ Subsidies to businesses to be founded by impacted groups ○ Providing for a comprehensive set of services to businesses, workers and the unemployed 	<ul style="list-style-type: none"> ○ Economic/ Sectoral Differentiation ○ New fields of growth ○ Novel entrepreneurship ○ New jobs

diagnosing needs in skills as well as to project interventions	<ul style="list-style-type: none"> ○ Subsidies to businesses for transformation purposes ○ Jobs linked to soil rehabilitation are critical ○ Topically targeted technical retraining ○ Social benefits 	
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INTEGRATED PROPOSALS PACKAGE

Human Capital

The mix of proposals in the matter of transition of staff directly impacted by such developments (as is, for instance, the case of a considerable proportion of drivers / machinery operators) is suggested to comprise:

- Employment at the various decommissioning projects to be carried out on the sites of the lignite-fired plants as well as in works towards land restoration.
- Association with the sector of constructions (mostly within the context of public works development).
- Supporting the transition to the domain of industrial activities as well as to specific energy-related activities.
- Employment – up to a given rate – in infrastructure development/ investment projects in the area.

The table below is understood to reflect the relevance of critical – for being labor-intensive – investments as to those directly-impacted members of the workforce.

Relative Investments	Relevance to the impacted members of the workforce
Land restoration works	+++
Power Plant Decommissioning	+++
Buildings energy efficiency upgrading under the “Energy efficiency program for households” (“Εξοικονομώ-Αυτονομώ”) project	++
Investments in clean energy	++
Investments in circular economy for waste management purposes * According to the EU, Greek Municipalities should attain the recycling objectives at a rate of 55% by 2025 and further at 65% by 2035	+++

- When it comes to the proposed projection orientations, as well as to those directly impacted, it becomes evident that investments may not be expected to yield employment (in the fields of constructions and operations) before 2023. Consequently, an assertive support towards employment, of those directly linked to lignite-related activities also over the transition period is required, hence the critical importance of the restoration of land for the retention of a considerable proportion of jobs – besides obvious environmental reasons.

- Retraining of the impacted qualified staff may not constitute a horizontal measure whereas no clear-cut policy appears for the moment to be in the pipeline, such as to directly tackle the issue. More specifically, under the current projection provided for in the Master Plan, the majority of development proposals as well as the calculation of the balance of flows to and from the labor market mostly concern new jobs within the entire range of the labor market (mobility and current unemployment). This particular aspect is critical for the Region, given the need for the new development paradigm to be sustained. When it comes to the groups directly affected, however, the solution to adopt should be way more specific, as it becomes evident that – at least in terms of loss of income – securing jobs amongst the staff directly impacted, over the period from 2021 to 2023, should also be expected to greatly safeguard jobs indirectly associated to the critical domain.

The human capital needs to be supported by way of up-to-date, targeted interventions to be featured as a clearly visible component of the developmental project which should directly and as unequivocally link to all other initiatives thereunder. A relevant synergetic diagnosis mechanism shall have to be developed, appropriate means for support to be secured as well as ensuring the availability of sufficient resources, an aspect to be expressly reflected within the territorial projects towards a just transition.

Consensus on the above aspects should be unconditional (clock) whereas the system of governance should remain flexible and as efficient (both in terms of flows and with respect to competences). All parties involved are expected to contribute consistently and their contributions to be duly documented by reference to a specific roadmap to apply for each partner. For this particular aspect to be catered to, the choice, identification and inclusion of all agencies to become involved in the projection, implementation and follow-up process are to be very carefully arranged, as is the particular way in which each one of such agencies may become instrumental to the success of the various support mechanisms as well as of the venture as a whole. An active involvement of local communities in the process is deemed to be of paramount importance and as such needs to be reinforced, within the fore described governance context.

Retraining is conditioned by a previous identification of skill deficits and an anticipation of future needs. Identification, in that sense, is therefore to target both the immediate needs and mid-term projections. Projection should be of the multi-levelled kind, pluri-parametrical and as equitable, such as to take aboard whatever constraints implied by the characteristics of target groups and areas. Whatever horizontal interventions should be expected to delay as well as / or otherwise undermine the developmental dimension, so critical in the process.

‘Relief’ accompanying measures meant for the human capital are to solely focus on the transition phase, along with a utilization of measures aimed to buttress entrepreneurship – mostly in the form of collaborative schemes, to the interest of those directly affected. Aiding businesses during transformation shall also result in the alteration of those jobs that are necessary towards retaining part of the impacted workforce.

Sustainable entrepreneurship may ensure sustainable employment whereas the functioning of support mechanisms may be a means towards a maximization of a positive outcome. The following proposals are therefore formulated to the purpose of creating jobs by fostering entrepreneurship and extroversion:

- Measures to foster entrepreneurship (in the form of collaborative schemes, such as energy communities, personal businesses, start-ups, businesses already active ea.) are in order.
- Retargeting is required, at the level of clean energy technologies and equipment, constructions / works of infrastructure, industrial technology, transports, energy efficiency upgrade for buildings as well as within the sector of agriculture.
- Planning should be expected to provide for incentives, swift procedures, access to funding and services capable of engendering transformation at the functioning, organizational and operational level, enabling a modernization of equipment and retraining.
- All of the above incentives shall have to be adjusted to and capable of conjugating with a comprehensive framework, observing whatever constraints eventually in place.

Last but not least, it is estimated that putting in place a dedicated, short-term framework towards managing jobs directly affected, could have a positive impact (retention) on jobs indirectly affected, as well. The approach to be adopted towards an upgrading of skills should be compatible with the structure

of the particular sectors. Whatever retraining of those directly or indirectly affected has to be projected by reference to the needs for development made evident in relative sectors

Lignite Phase-Out Process

The period from 2021 to 2023 is understood to be critical for the reduction (and management) of the impact the projected transition is expected to have on employment and income. Engineering the relevant process shall be of determinant importance whereas it pays to specifically provide for a transition module (“bridging”) to apply over such critical period, for as long as the process of shut-down of lignite-fire plants is under way.

The role of the Public Power Corporation (PPC) in such process shall be critical whereas the decommissioning and land restoration works to be launched may be expected to buttress a smoother transition, allowing for the shrinking of directly and indirectly affected jobs to be contained. Circular economy, renewables, energy efficiency as well as construction works and transport may also be put utilized towards a seamless form of transition whilst ensuring labor-intensive employment through sustainability.

Under the circumstances, what is suggested is a review of the projects of development of natural gas infrastructures, within the context of ΣΔΑΜ (Greek acronym for Just Transition Development Plan) along with an assistance, through the establishment of energy communities, to local communities and local government structures, providing them with robust, energy-saving upfront measures. Territorial measures meant to foster just transition should be expected to further qualify the necessary interventions, based on the plans elaborated by the various regions and the type of assistance eventually available from the Academia, other local agencies and from the social partners, the whole ascribing an integrated and efficient system of governance.

Natural gas’s contribution has been a lower intensity of labor compared to RES as well as energy efficiency whereas it is more than certain that within the next decade a similar phase-out process will be launched in the domain of gas, thus heralding the beginning of the next cycle of transition.

Moreover, as part of the process of evaluation of the National Plan for Energy and the Climate (NECP), there is a relevant stipulation on the risk for investments in natural gas to become “stranded assets” hence a proposal for ways to be found for investments to rely on long-term planning and to be compatible with the domain of clean technologies³. At WWF Greece we have stressed such risk and made sure such imminence is reflected in the recently published report on Green Recovery⁴.

³ Individual assessments and summaries https://ec.europa.eu/energy/content/individual-assessments-and-summaries_en?utm_source=POLITICO.EU&utm_campaign=35c9cb3a12-EMAIL_CAMPAIGN_2020_10_14_10_33&utm_medium=email&utm_term=0_10959edeb5-35c9cb3a12-190548415

⁴ WWF Ελλάς. (2020, Οκτώβριος). Η πρόταση του WWF για ένα πράσινο πακέτο ανάκαμψης που θα ανοίξει 125.000 νέες θέσεις εργασίας στην Ελλάδα. <https://www.wwf.gr/?uNewsID=934316>

Redirecting investments from Natural Gas to Clean Energy

Under the National Energy and Climate Plan (NECP, Greek acronym: ΕΣΕΚ) it is estimated that investments in new natural gas infrastructure - including both production as well as transmission and distribution - shall, by 2030, be of some 5.5 billion Euro. Climate and economy-wise, such choice is extremely disconcerting.

Under the climate perspective, the argument of a sustainable “bridge fuel” has for some time now been dismissed as fiction. Emissions to be reckoned with over the life cycle of natural gas have been greatly underestimated whereas any new investments in fossil fuels would, in the event of extended pay-off periods, commit Greece’s energy model to a high-emissions perspective. Such approach is not consistent with the Paris Agreement whilst downplaying the carbon phase-out process as a whole.

Under the economic recovery perspective, natural gas infrastructure traditionally features considerably lower employment and economic performance multipliers, compared to alternatives based on clean energy and storage. A series of simple estimates should suffice to demonstrate that a 5.5 billion Euro investment (with a scope of up to 2030, according to the NECP) not utilized in natural gas and channeled towards alternative solutions based on clean energy resources and distribution infrastructure (e.g. smart networks and heat pumps) instead, should be expected to yield an additional 25.000 full-time jobs for Greece until 2030. In the light of such considerations, we therefore propose that yearly investments in natural gas infrastructure, projected on the basis of the National Energy and Climate Plan (of some 550 million Euro per year) be redirected towards alternative clean energy, storage and network infrastructure over a period of three years, through use of resources made available under the Recovery Fund.

Last but not least, it is worth mentioning that Bloomberg’s recent report on New Energy Finance considers most investments in natural gas projected for Greece to be purposeless, from an energy perspective and financially unlikely to perform, compared to clean energy infrastructure.

Similar conclusions are featured in the recent research report by McKinsey⁵ as well as in a report by the International Energy Agency (IEA)⁶.

⁵ Can a low-carbon recovery agenda create jobs and help the economy? <https://www.mckinsey.com/featured-insights/coronavirus-leading-through-the-crisis/charting-the-path-to-the-next-normal/can-a-low-carbon-recovery-agenda-create-jobs-and-help-the-economy#>

⁶ A sustainable recovery plan for the energy sector <https://www.iea.org/reports/sustainable-recovery/a-sustainable-recovery-plan-for-the-energy-sector#abstract>

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