ENTRANCES

ENergy TRANsitions from Coal and carbon: Effects on Societies

POLICY BRIEF

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AS PONTES, A CORUÑA REGION, SPAIN

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ENTRANCES PROJECT

ENTRANCES (ENergy TRANsitions from Coal and Carbon: Effects on Societies) is a three-year project funded by the European Union's Horizon 2020 research and innovation program. The project addresses the Social Sciences and Humanities (SSH) aspects of the Clean Energy Transition (CET) through the development of a theoretically based and empirically grounded understanding of cross-cutting issues related to social aspects of the transition in European coal and carbon-intensive regions and the formulation of a set of recommendations able to tackle these issues. To that end, 13 coal and carbon-intensive transition regions in Europe were studied using the same Multidimensional Analytical Framework (MAF), resulting in 13 case studies and an equal set of recommendations that reveal the complexity of the transition process and the impact in the daily life of local communities in its various dimensions.

EXECUTIVE SUMMARY

This policy brief was developed under the Entrances Project and focuses on the results of the As Pontes, A Coruña Region case study. As Pontes, located in the A Coruña province, in northwest Spain, is home to the largest thermal power plant in the country, La Central de As Pontes. The As Pontes plant was commissioned in the early 1970s to exploit the lignite mines in the region and was restructured in the 1990s to use a mixture of local lignite and imported coal with the objective of reducing emissions. However, the lower price of imported coal made the local mines uncompetitive and eventually the As Pontes coal mines were permanently closed in 2007. From then on, the thermal power plant started burning only imported coal, until the Spanish government's proposed 2030 climate targets paved the way for the closure of all coal-fired power plants, including As Pontes, with serious consequences for the local community's well-being.

This closure created a vacuum in the economic sphere of the region, resulting in job and income loss, accelerating emigration and brain drain, and increasing the size of the dependent population, which has already affected the socioeconomic fabric of the region and caused a sense of loss of identity among the plant's workers.

Various strategies have been developed and implemented in the region to cope with the challenges, and while some of these have had positive and constructive impacts, others have fallen short of achieving the desired outcome. This Policy Brief reviews these challenges and proposes recommendations to address these gaps.

INTRODUCTION TO THE PROBLEM

The closure of La Central de As Pontes thermal power plant will cause a void in the economic landscape of the region, leading to the loss of jobs and income, reduced labour productivity, lower participation in the labour force, decreased disposable income, as well as a decline in both the GDP and GDP per capita. Small ancillary businesses and retail outlets are also expected to close due to falling demand, accelerating the brain drain and emigration of the region's youth. Furthermore, the closure of the mines and the plant will result in a loss of an essential part of the identity of a large number of mining families who have worked in the coal mines for generations, creating a fear of loss of identity among the plant's workers.

The decarbonisation process has also affected the socio-psychological well-being of the inhabitants of As Pontes and the surrounding municipalities. Their anxiety about their future and that of the next generations has increased, creating a sense of disparity in the economic and cultural decline of the region. The decarbonization process has weakened the political power of the region, which has contributed to the rise of the conservative and separatist political parties in the region.

With this case study ENTRANCES explores the challenges faced by coal and carbon-intensive regions in transition, focusing on various socio-economic, sociotechnical, socio-ecological, socio-cultural, socio-political, sociopsychological, and gender-related factors. It also examines the coping strategies that have emerged in recent years to address these challenges and investigates the variables that have influenced the emergence of deterritorialization and the strategies that determine its success using multidimensional analytical framework (MAF).

This policy brief aims to identify policies or policy combinations that would effectively restore territorial and community ties in coal and carbon-intensive regions while promoting their transition to clean energy.

Key questions

Key Question1. What are the challenges faced by coal and carbon transition regions in different dimensions of change?

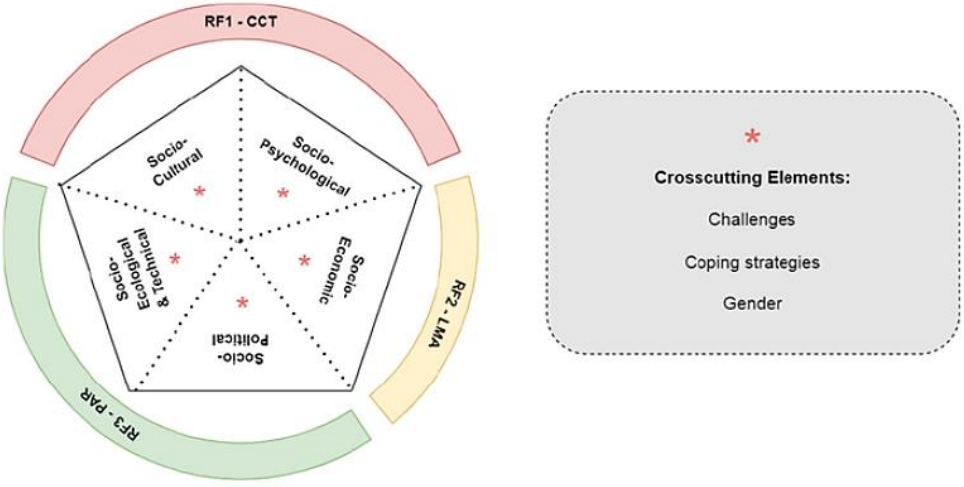
Key Question2. What are the emerging coping strategies and what policies could be more effective to address the identified challenges?

METHODOLOGY:

The ENTRANCES case studies were structured into multiple foci (Territorial Change, Structural Change and Clean Energy Transition) and respective units of analysis (Coal and Carbon Territory, Labour-Market Area and Political Administrative Region) to better address the scope of research. Additionally, a comprehensive Multidimensional Analytical Framework (MAF) consisting of five components: socio-cultural, sociopsychological, socio-economic, socio-ecological, and technical component, was adopted to study the complex and multidimensional dynamics in place.

Each component of analysis is supported by specific concepts and methodologies, as well as three cross-cutting elements: challenges, coping strategies, and gender dimension. The resulting challenges, as well as the gender dimension analysis, provide a very clear picture of the real situation in the region of analysis, accurately highlighting the problems related to the demographic, economic, social, cultural and political configuration. The initial results obtained from the different coping strategies generate new avenues for the discussion and recommendations presented in this policy brief.

Overview of the Multidimensional Analysis Framework: Research foci, components and crosscutting elements



CHALLENGES AND COPING STRATEGIES

CHALLENGE 1

AGEING AND DEPOPULATION

1 Support for the elderly population

The local government of As Pontes plans to invest part of the Just Transition funds in old-care homes and to support health infrastructure.

2 Job creation to retain young people

New companies are invited to open businesses in the As Pontes industrial complex. Subsidies and cheap land are made available to new companies willing to open their production and distribution units in As Pontes.
A small number of young locals got jobs in the new green energy projects. However, a large number of low-skilled workers are forced to leave in search of jobs in the service sector.

3 Provision of cheap, affordable and suitable housing

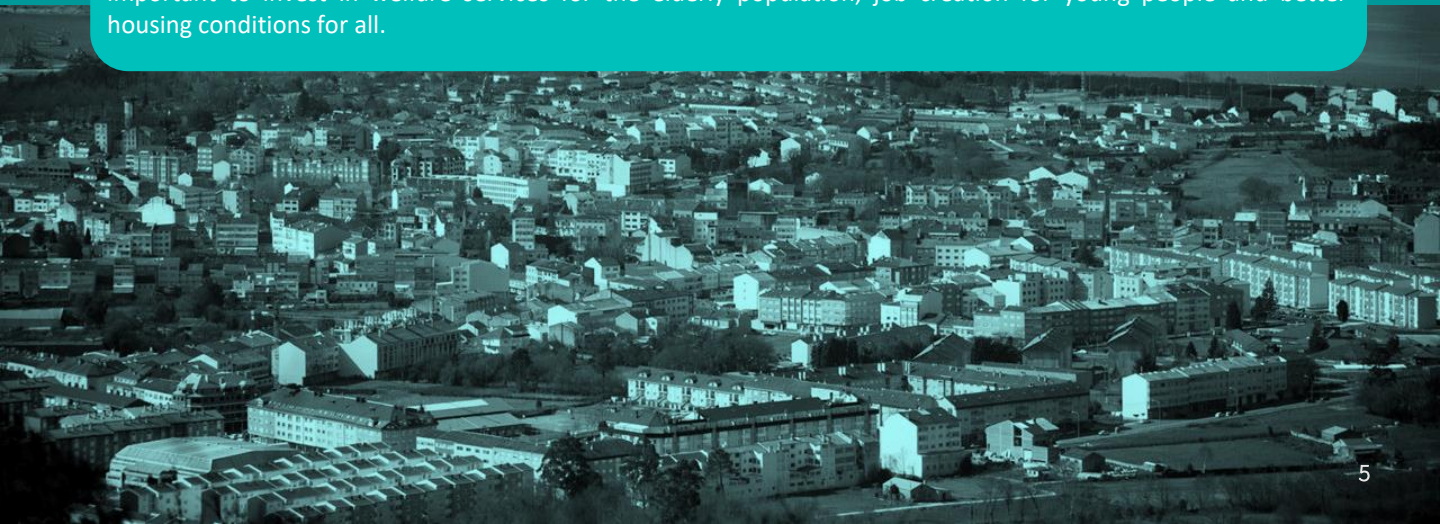
Large-scale refurbishment of residential buildings is underway to increase the supply of suitable housing for young people seeking emancipated.
Despite the investment of public funds, there has been little success in retaining the population.

RECOMMENDATIONS

- Age-appropriate working environment with automation.
- Strengthening the social security system and increasing the retirement age.
- Improve health care and support for the elderly through the creation of special urban care homes.
- Facilitating access to affordable housing.
- Creating better employment opportunities.

DISCUSSION

Depopulation and ageing, accelerated by the decline of economic activities and the emigration of young people, are the main challenges for the socio-demographic reproduction of the region. For regional development, it is important to invest in welfare services for the elderly population, job creation for young people and better housing conditions for all.



CHALLENGES AND COPING STRATEGIES

CHALLENGE 2

MANAGEMENT OF INDUSTRIAL WASTE

1 Conversion of the mine shaft into a freshwater lake

The open pit created by coal mining was filled with fresh water from the river Eume and converted into a fresh-water lake.
The heaps of clay and tailings created by the mining activities have been converted into natural parks and recreational sites.

2 Sale of land and abandoned industrial equipment to new companies

Land acquired by ENDESA for the storage of coal has been put to sale at controlled prices for new businesses. The sale of land is underway and usable machinery will be sold to local companies.

3 Environmental impact assessment by regional and local administrations

The regional and local governments have played an important role in assessing the impact of the thermal power plant on environment, and now they have made a committee which is assessing the impact of dismantling of the thermal power plant on the environment and ecosystem of the region.

RECOMMENDATIONS

- Strict laws to punish polluting firms.
- Encourage industries to cut emissions by increasing carbon prices.
- Conversion and maintenance of degraded land into natural parks.
- Strict control on water quality in freshwater lake and underground water.
- Installation of water treatment plants for existing industrial units.
- Investment in waste recycling projects.

DISCUSSION

The local administration and Endesa are collaborating to manage industrial waste and rehabilitate exploited land to repair the environmental damage caused by the company over the past five decades. Managing industrial waste and land reclamation are important to mitigate the impact of industrial activities on the natural environment and reactivate the industrial park of As Pontes. Collaboration between various actors and the allocation of funds are necessary to accelerate the recovery process.

CHALLENGES AND COPING STRATEGIES

CHALLENGE 3

INDUSTRIAL RECONSTRUCTION OF AS PONTES AND SURROUNDING REGION

1 Revival of energy sector

National government and private players are investing in solar and wind energy farms to increase the share of renewable energy in the national energy mix. Endesa's *Futur-e plan* will allow the development of industrial projects based on the creation of new companies related to renewable energies.

The new green hydrogen project is underway, which will increase the energy storage capacity of the region and will develop into a Hydrogen hub in Spain.

2 Industrial diversification

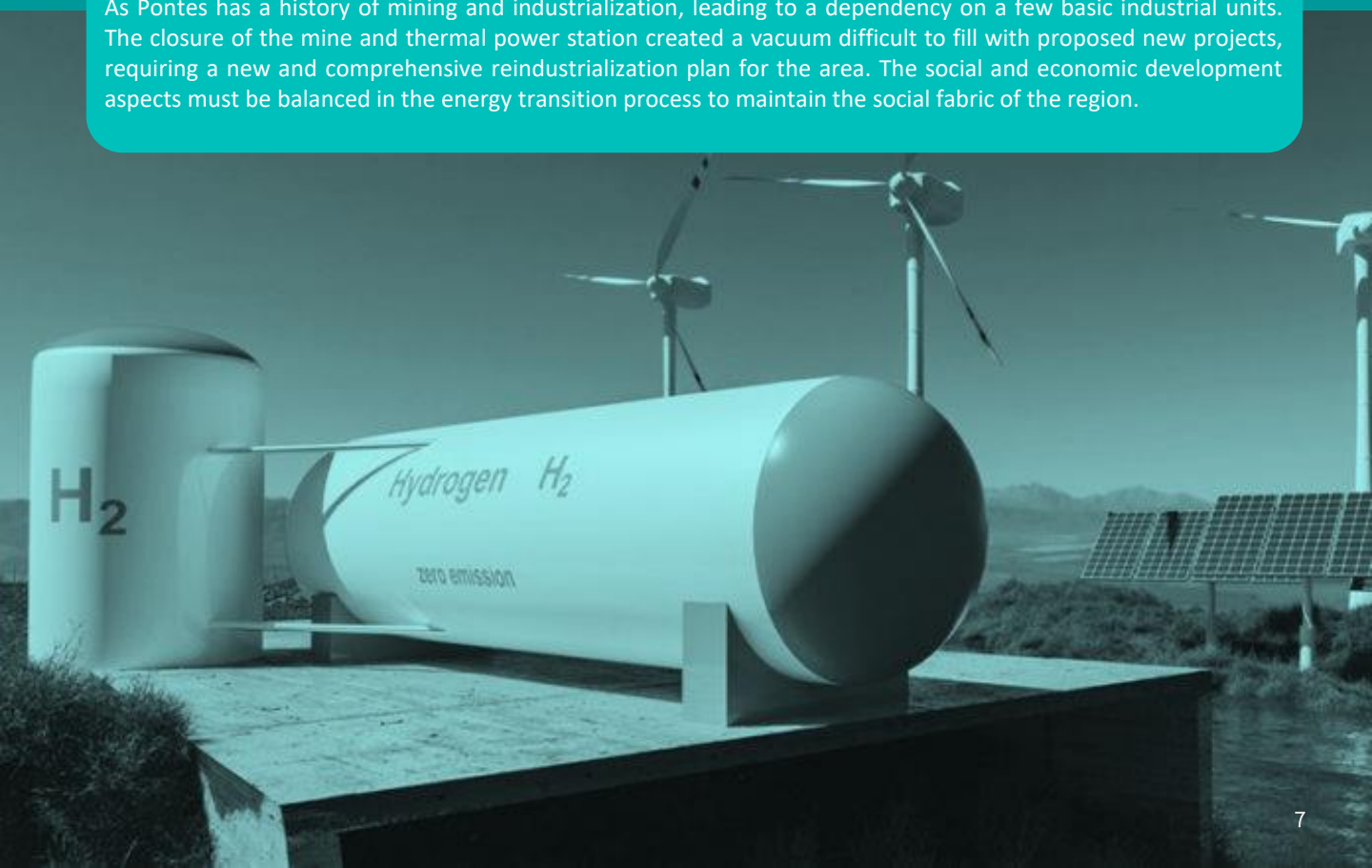
New companies are entering in the industrial complex of As Pontes, which will diversify and revive the local industrial complex in As Pontes.

RECOMMENDATIONS

- Investment in environment friendly industries based on local resources.
- Easy access to business loans for small and medium scale industries.
- Attracting external investments by providing tax rebates and cheap land.
- Investment in industries based on circular economy.

DISCUSSION

As Pontes has a history of mining and industrialization, leading to a dependency on a few basic industrial units. The closure of the mine and thermal power station created a vacuum difficult to fill with proposed new projects, requiring a new and comprehensive reindustrialization plan for the area. The social and economic development aspects must be balanced in the energy transition process to maintain the social fabric of the region.



CHALLENGES AND COPING STRATEGIES

CHALLENGE 4

ENSURING ENERGY AVAILABILITY AND AFFORDABILITY

1 Short-term reopening of the La Central Power plant

The thermal power plant, La Central, which was in the process of being decommissioned, has reopened to supply cheap energy for domestic and industrial use. Thanks to the reopening of the thermal power plant, Endesa has managed to supply electricity to all households and businesses in the region. It also helped to curb the rise in energy prices in the short term.

2 Installation of green energy projects

Three wind farms have been installed in the region to supply electricity for domestic and industrial use. A hydrogen plant to store the renewable energy produced by windmills and photovoltaic panels will be installed in this region in the next one to two years. The wind farms are contributing to the energy supply in the region, however, it is insufficient to fill the gap created by the closure of the thermal power plant.

3 Subsidies and tax rebates on energy

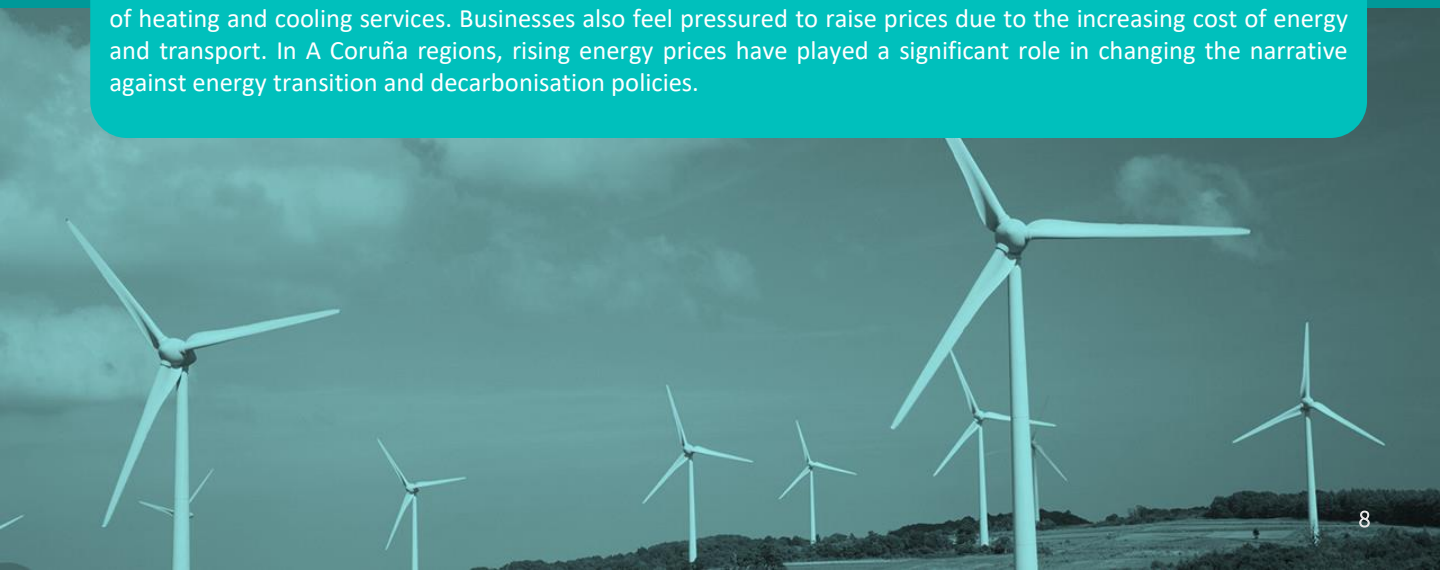
Subsidies are given to energy companies to control energy prices in the country. The electricity tax rebate has helped people to survive the cold winter, but most of the benefit from the subsidies goes to big businesses and energy companies.

RECOMMENDATIONS

- Price cap on energy bills and control over large energy companies.
- Awareness campaigns for energy saving and planned energy consumption
- Diversification of energy generation and primary sources
- Investment in energy storage technologies.
- Investment in energy infrastructure

DISCUSSION

Rising energy prices have made it difficult for middle-class households to meet monthly expenses, leading to a lack of heating and cooling services. Businesses also feel pressured to raise prices due to the increasing cost of energy and transport. In A Coruña regions, rising energy prices have played a significant role in changing the narrative against energy transition and decarbonisation policies.



CHALLENGES AND COPING STRATEGIES

CHALLENGE 5

BRIDGING THE DIGITAL DIVIDE AND HUMAN CAPITAL FORMATION

1 Investment in new professional courses

Public institutions and Endesa provide training courses for redundant workers and prepare them to work in new green energy projects. Local young people are encouraged to learn computers and new technologies to find work in new industries. The success rate is very low and most of the beneficiaries of the vocational courses are still unemployed.

2 Investment in the digital infrastructure

Optical fibre has been extended to connect the industrial complex with the main city of A Coruña and the outside world. The 5G internet service reaches all homes and new businesses but the lack of investment in infrastructure is still a relevant problem.

3 Reversing brain drain and youth migration

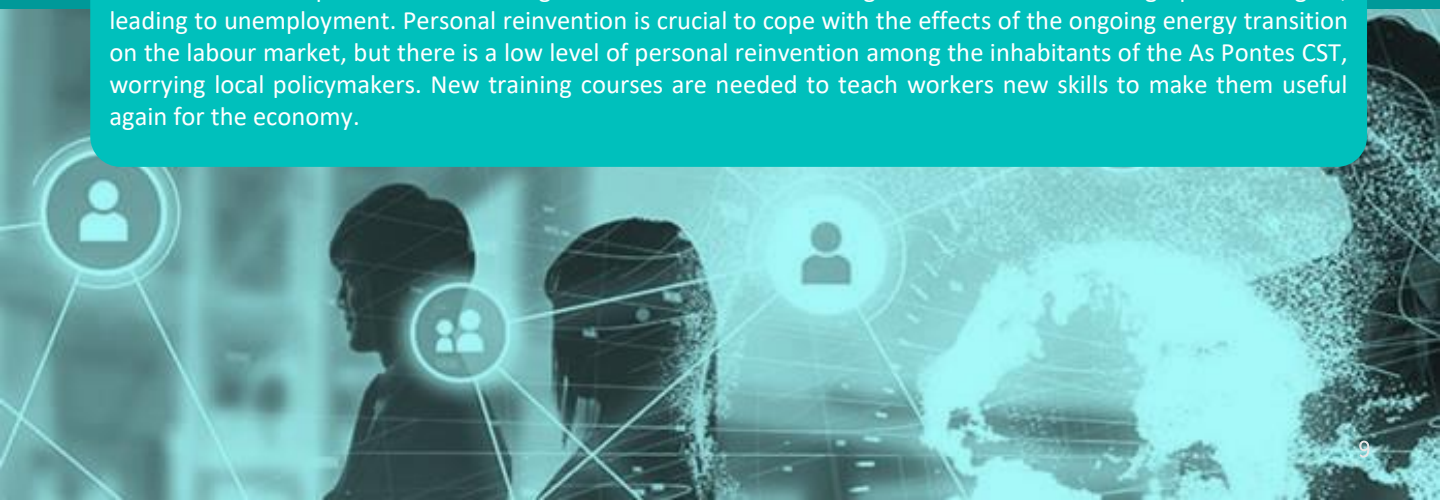
Endesa's compensation programme for decarbonization includes the qualification of personnel who have worked in the power plant. New companies planned in the area of As Pontes are expected to incorporate young people trained in technologies and renewables, among other skills. However, too few young people get jobs in the region. Underinvestment and lack of job opportunities remaining as the main obstacles to retaining talented workers.

RECOMMENDATIONS

- Provision of educational and training opportunities through just transition funds.
- Provision of broadband connection and digitalization.
- Funding of research and development institutes.
- Investment in re-skilling of laid off workers.

DISCUSSIONS

There is a gap between the needed and available human capital in the region, with new firms requiring skilled workers with multiple skills. The shortage of skilled workers discourages new firms from setting up in the region, leading to unemployment. Personal reinvention is crucial to cope with the effects of the ongoing energy transition on the labour market, but there is a low level of personal reinvention among the inhabitants of the As Pontes CST, worrying local policymakers. New training courses are needed to teach workers new skills to make them useful again for the economy.



CHALLENGES AND COPING STRATEGIES

CHALLENGE 6

INVOLVING THE LOCALS IN POLICY MAKING AND IMPLEMENTATION

1 Encourage bottom-up decision-making

Efforts have been made to involve various stakeholders through a public participation process. Government, cultural sections, universities, social and technological partners and the business community have been invited to propose and participate in the transition process.

2 Support to community-based programs

The formation and operation of the Crisis Committee, under pressure from the transport companies, supported by the rest of the residents of As Pontes and the Ferrol region, was an important step in dealing with the adverse impacts of the transition process. The crisis committee brings together the employers' associations and the trade unions.

RECOMMENDATIONS

- Bottom-up approach in policy making and implementation.
- Decentralization of powers and involvement of regional governments in decision making.
- Support to community-based programs such as energy communities, local cooperatives, etc.
- Support to cooperative business model for regional development.

DISCUSSION

The City Council of As Pontes emphasizes the need to improve the level of community participation in the transition process, which is currently minimal. Stakeholder participation is crucial to reduce the adverse impacts of thermal power plant closures and implement decarbonisation policies successfully. The lack of knowledge among different stakeholders about the short- and long-term impacts of the energy transition is a significant obstacle to achieving the desired results. There is a clear gap in women's participation in the transition process, despite some holding positions of power in the Crisis Committee and local administration. Efforts are being made to involve more women in the debates on the transition process.

CHALLENGES AND COPING STRATEGIES

CHALLENGE 7

RESPONDING TO PARTICULAR SOCIAL NEEDS

1 Financial support to vulnerable groups

The national and regional governments are supporting mine and plant workers, who have lost their jobs. They forced ENDESA, to provide jobs to the permanent staff in their other industrial units. Some also received early retirements. However, transporters and workers in auxiliary businesses feel neglected.

2 Participation of women in energy transition and regional development

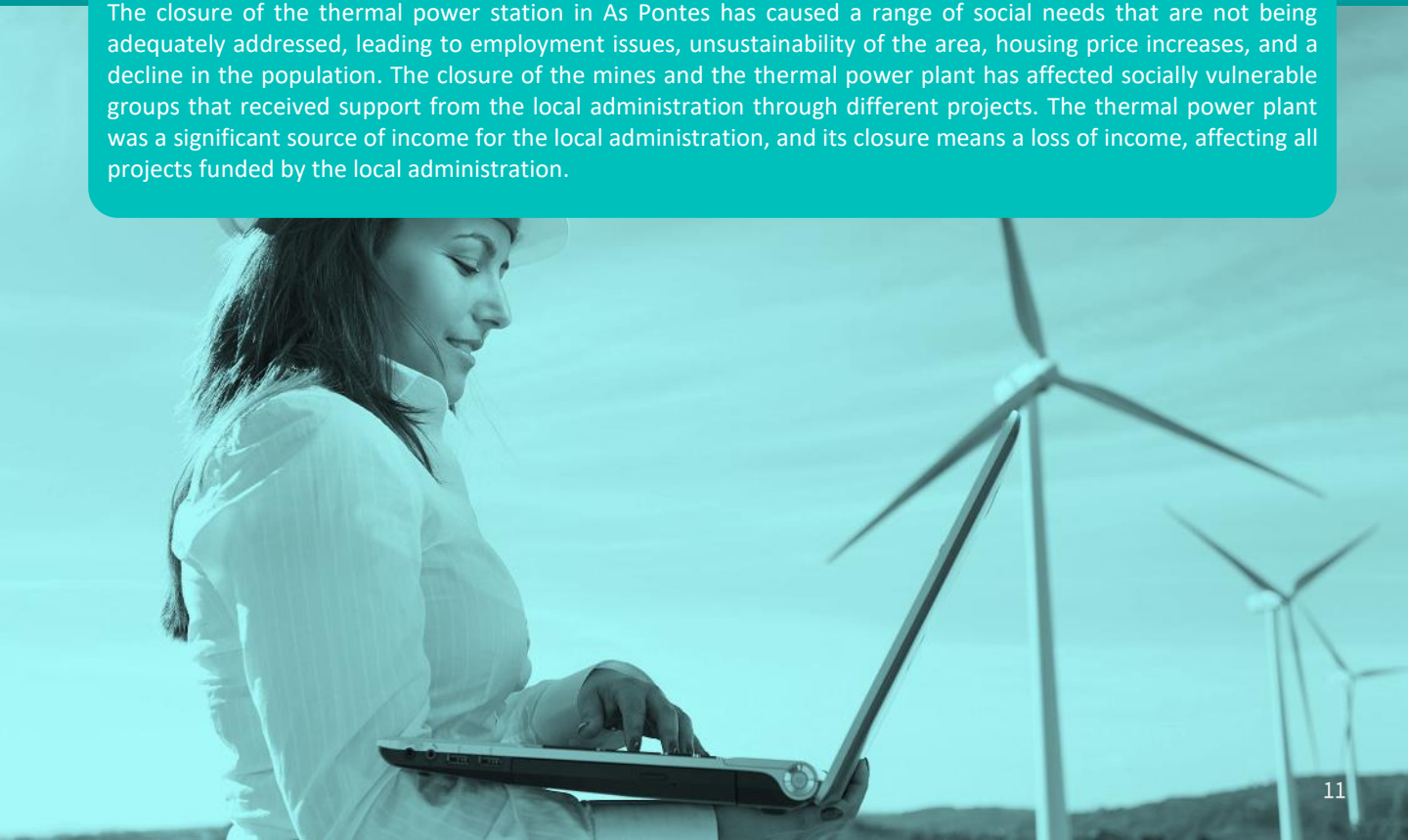
The Women's Institute of As Pontes provides guidance, information, and support for promoting gender equality in the region, with the aim of developing skills and competencies of women for jobs in auxiliary and parent companies of the new circular and sustainable economy.

RECOMMENDATIONS

- Support to worker groups, such as mine workers, transporters and auxiliary workers.
- Investment in health sector to support people affected due to exposure to pollutions.
- Financial support to vulnerable families.
- Quota for women in policy making and jobs in renewable energy sector.

DISCUSSION

The closure of the thermal power station in As Pontes has caused a range of social needs that are not being adequately addressed, leading to employment issues, unsustainability of the area, housing price increases, and a decline in the population. The closure of the mines and the thermal power plant has affected socially vulnerable groups that received support from the local administration through different projects. The thermal power plant was a significant source of income for the local administration, and its closure means a loss of income, affecting all projects funded by the local administration.



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