



ENTRANCES

ENergy TRAnSitions from Coal and carbon: Effects on Societies

POLICY BRIEF

Stavanger, Norway

July
2023

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement n° 957751

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 Stavanger, Norway case study. Stavanger is located in Rogaland, a county on the south-western coast of Norway.

Oil was discovered in the North Sea in 1969, and since then oilfields in the North Sea have been constructed and the search for oil has been ongoing. As a result of climate change and the green energy transition, a decision has been made to invest in clean energy in Stavanger and rebrand the city as the Green Energy Capital from its previous moniker of the Oil Capital of Norway. Several challenges have been identified when attempting to decarbonize, while still extracting and exporting oil worldwide.

The continuous attempt to decarbonize the region has shown to be in some respects successful, but it has also created challenges and problematic situations. This policy brief reviews the challenges faced by the region and proposes recommendations to address the problems faced by the region.



INTRODUCTION TO THE CASE STUDY

The importance of the Stavanger case in the context of ENTRANCES comes from its interconnectedness with oil and gas – substances that have had (and continue to have) a profound impact on the Norwegian economy, employment, industry, and culture. The decarbonisation plans for the region and Norway have created opportunities for new business endeavours related to green energy and technology, but have also created challenges as the region is so tightly connected with the oil- and gas industry. As Norway is only in the early stages of decarbonisation, the process has not progressed very far. The reasons are diverse, but the high attachment to oil and the financial benefits it has provided the region and Stavanger itself are likely culprits.

The process of decarbonisation has had impacts on both people and businesses, and the political debate surrounding it has at times been temperamental. It remains to be seen how the region will adapt to more impactful changes and if Stavanger manages to firmly place itself as the Energy Capital of Norway.

With this case study, ENTRANCES explores the challenges faced by coal- and carbon-intensive regions in transition, focusing on various socio-economic, socio-technical, socio-ecological, socio-cultural, socio-political, socio-psychological, 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 de-territorialization and the strategies that determine its success using a multi-dimensional 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:

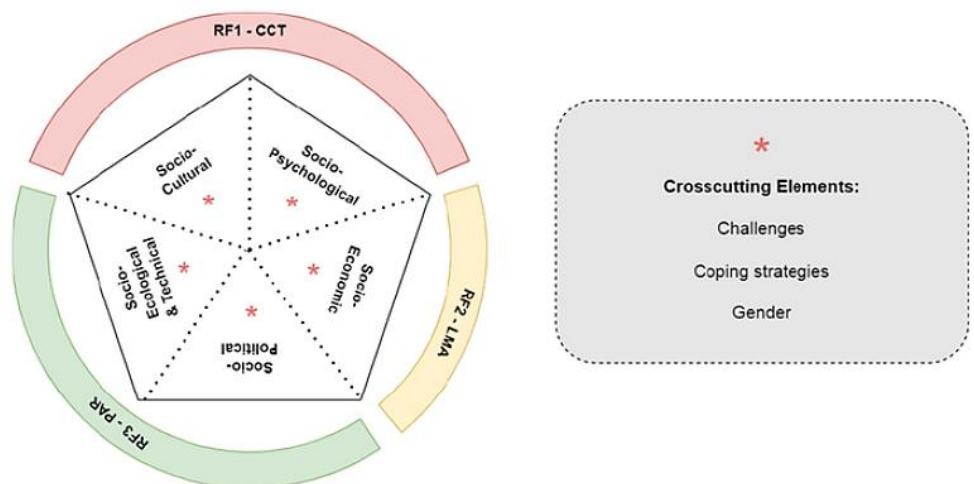


The ENTRANCES case studies were structured into multiple foci (Territorial Change, Structural Change and Clean Energy Transition) and respective units of analysis (Coal and Carbon Territory, Labour-Market Area and Political Administrative Region) to better address the scope of research. Additionally,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



Region is too attached to the oil and gas industry

1

Focus on new businesses outside “the oil”

There is a need for a business sector involved in the transformation that is disconnected from the oil- and gas industry. The problem is that it is impossible to compete with the financial muscle of an industry that can attract people with experience and know-how.

2

Recruit students into green new jobs

The local university has seen a decrease in Norwegian students at the Master’s- and PhD-level where a higher portion are foreign students.

Tailor education towards new industries, e.g., a Bachelor’s degree in battery technology.

3

Ocean wind farms have shown to be successful

Establishment of new industries are possible when intention and cooperation function well. When negative consequences are clear, it has a motivational function towards (positive) action.

RECOMMENDATIONS

- Facilitate the establishment of "green" businesses or other similar businesses.
- Restructuring of the business sector and a clear focus on new businesses and diversification.
- The region needs clear goals on what it wants to achieve.

DISCUSSION

As a result of the financial benefits that oil and gas have had, the region is tightly connected with the industry. The solution might be the development of industries outside of oil and gas, that are also independent from that sector. Furthermore, the development of education linked to a new green sector could be helpful in preparing the region for the CET.





CHALLENGES AND COPING STRATEGIES

CHALLENGE 2



Regional identity crisis

1

Divided view of the oil industry

A core issue for the region, and perhaps the country of Norway as a whole, is the increasingly divided view of oil as both a resource and a major pollutant. Whereas several individuals are either pro- or anti-oil, there is a greater amount of individuals who share a more ambivalent relationship with the resource.

2

The region is rebranding

As a result of the decarbonization process in the region, there has been an effort to rebrand the region. It has been known as the Oil Capital of Norway but is now rebranding itself as the Energy Capital of Norway.

3

Adaptation to the new situation

Some people actively get involved with the subject of regional oil activity and to proclaim and promote viable alternatives to oil and gas in the region. The Stavanger CCT does benefit from certain green start-up businesses and is also implementing the green shift in the region through the establishment of specific political-administrative working groups

RECOMMENDATIONS

- A focus on development on green technology.
- Businesses in the region should focus on investing in green technology.
- A focus on green start-up businesses.

DISCUSSION

As the climate change crisis has been seen to result in severe problems, it is important that the region, including Norway, is able to adapt. Green technology keeps being developed across the globe, and fully viable alternatives to oil and gas are starting to become mainstream, the Norwegian industry has to relent and adapt. How this is done will determine the region's success





CHALLENGES AND COPING STRATEGIES

CHALLENGE 3



Inclusion of regular people in the CET debate

1

Regular people have no venue

These people have little to no contact with or information about the CET or the possible ramifications stemming from it. There are also no natural venues for the average citizen to appear, which is practically shutting them off.

2

Lacking skills for the future

A large number of citizens may find themselves out of a job and lacking the necessary skills required for a new clean energy sector.

3

Unemployment and social unrest

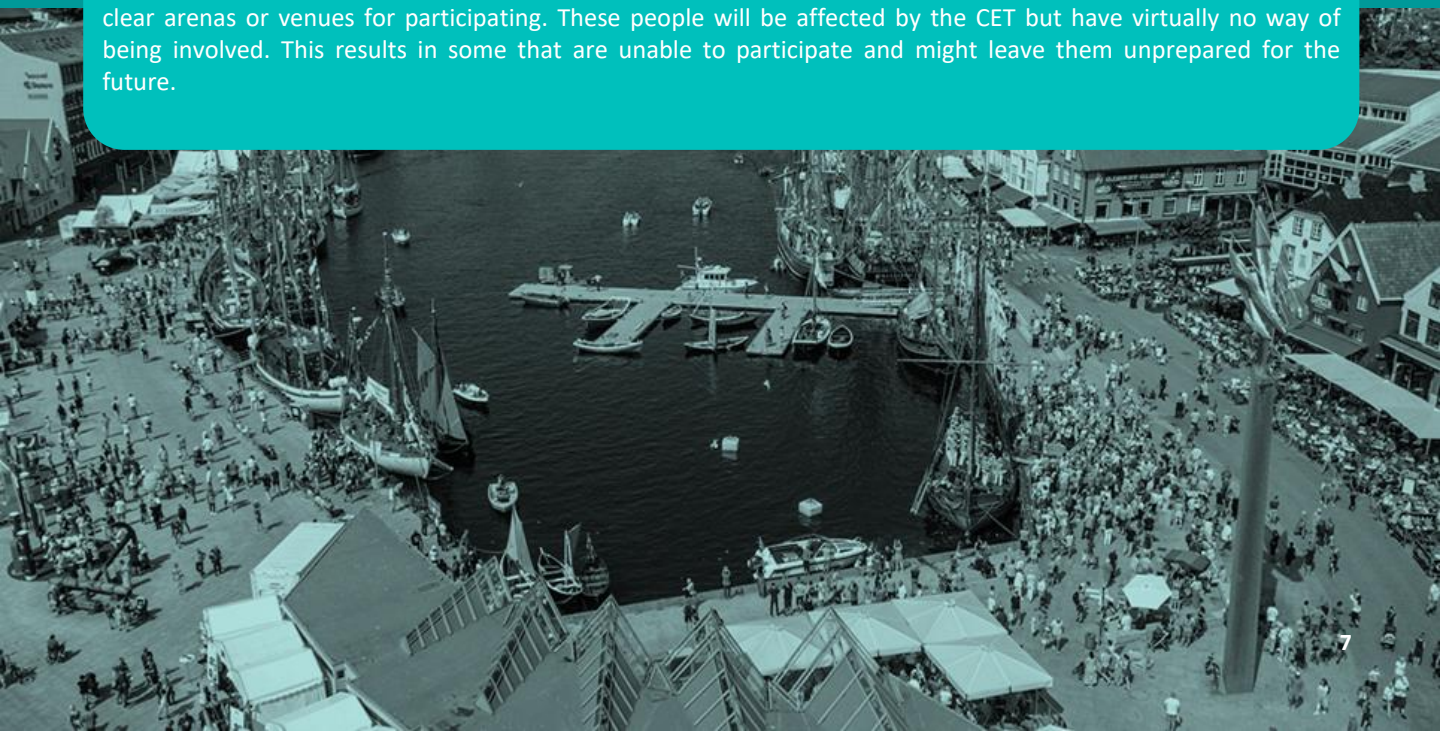
The dangers of a failure to execute the CET is that it might result in a populace unprepared for the future. This might lead to possible social unrest as a result of increased unemployment in Stavanger.

RECOMMENDATIONS

- Continuing education for employees currently working in carbon intensive jobs.
- Clear path to new jobs in “green” industry and businesses
- Creation of arenas for those “outside” the oil and gas industry to participate.

DISCUSSION

In the region, there are people that are not directly connected to the oil and gas industry and do not have any clear arenas or venues for participating. These people will be affected by the CET but have virtually no way of being involved. This results in some that are unable to participate and might leave them unprepared for the future.





CHALLENGES AND COPING STRATEGIES

CHALLENGE 4



Funding issues

1

Struggles with funding issues for environmental protection

The region demonstrably struggles with subject-specific funding issues, primarily for environmental protection. The reasons for these finance-oriented difficulties are varied, but it seems that the difficulty of monetizing environmental costs is used as a justification or excuse for not maintaining or upkeeping it.

2

A funding system for environmental protection

A funding system should emphasize restorative properties and promote strategies in which the project benefits nature rather than exclusively harming it.

3

Knowledge building arenas

It is possible to conclude that coping primarily involves accepting the situation as it is, albeit with a great degree of frustration. It is therefore imperative for the region to introduce knowledge-building arenas where the importance of nature and a healthy relationship with it is highlighted.

RECOMMENDATIONS

- Make clear responsibilities for environmental damages.
- Include the environment when planning projects.
- Create nature restoration projects.
- Create knowledge building arenas.

DISCUSSION

Nature has been left out of important developments in the region and has been more of an afterthought in some instances. When including nature in the project, budgeting has been shown to be a challenge, but the destruction of nature can be irreversible, and this issue should not be sidelined. A clear focus on the consequences of the destruction of nature and the costs of this should be considered a vital issue.



CHALLENGES AND COPING STRATEGIES

CHALLENGE 5



Tensions between actors in the region

1

Lack of foresight in regulations



Some claim that local municipality in the Stavanger region and the national government is too slow in enacting regulations and new framework conditions for both large and small companies willing to invest in green technology.

2

Better regulations for businesses



The desired outcome is looser regulations and for companies to be able to act as quickly and efficiently and therefore, according to their perspective, be able to continue business as unhindered as possible.

3

Closer ties are important

This situation is at an impasse and representatives of business associations in the area argue that without framework conditions and regulations the situation is hard to resolve. It should be mentioned it is not claimed that the politicians were ignorant of the problems and that nothing was being done.

RECOMMENDATIONS

- Cooperation between businesses and government
- Define clear regulations for businesses
- Regulations should be put in place in a timely manner
- Ensure good governmental oversight

DISCUSSION

It is important for the national government and local municipalities to come together with the industry and have a close dialogue and exchange information. This would likely benefit both parties. For the government and municipalities, it ensures a focus on worker rights and the preservation of nature can be ensured a "place at the table" as it were.



CHALLENGES AND COPING STRATEGIES

CHALLENGE 6



Problems with execution

1

A lack of will to complete projects

Several solutions have been presented in the region, but the successful execution of several projects have been lacking. There has been a lack of will to see projects through.

2

Goal-oriented cooperation

Goal-oriented cooperation where people that are set to cooperate should be physically close together to solve particular issues as problems with cooperation.

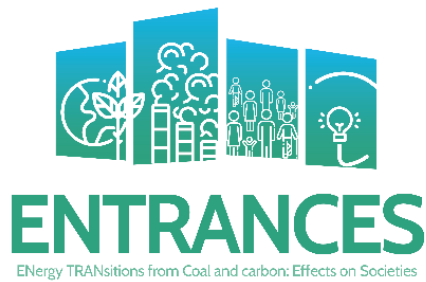
RECOMMENDATIONS

- Make sure projects are well planned before project starts.
- Good communication between departments, but also with businesses in the region.

DISCUSSION

A lack of cooperation between departments in the region might lead to problems with project execution. This could lead to large expensive projects being delayed or, in worse-case scenarios, unfinished. The importance of proper execution then becomes clear, and the importance of cooperation and communication is vital.





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This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement n° 883947. The document represents the view of the author only and is his/her sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Innovation and Networks Executive Agency (INEA). The European Commission and the Agency do not accept responsibility for the use that may be made of the information it contains.