

Proposal for an ESPON 2030 Programme Thematic Action Plan (TAP) on 'Climate neutral territories'

Input paper for the consultation from 30 November 2021 to 31 January 2022

For details of the consultation process, see www.espon.eu

1. The understanding

Climate change has become a recognised challenge at the global level and is being addressed by the EU as a top priority with high urgency. The TAP theme 'Climate neutral territories' aims to support this EU priority by creating territorial evidence on climate change related challenges and development opportunities. This will be done by looking into possibilities to transform climate change related challenges into opportunities in such a way that all European territories are encouraged and stimulated to transition towards climate neutrality by 2050.

The **objective** of this TAP is to develop the knowledge base as regards the territorial aspects of a green transition towards a climate neutral economy. Through observations for the entire ESPON Programme area, this TAP intends to provide new insights and possible pathways for all types of territories to decrease carbon emissions, increase carbon sinks, create, enhance and manage green infrastructure (GI), support the energy transition, green digital transition and a shift towards a green and circular economy. The TAP will have a special focus on territories with additional challenges, such as economic development, accessibility or social disparities, and show them how a climate neutral approach can address these.

Among others, this TAP:

- includes comparative studies aimed at identifying territorial challenges and opportunities that would lead/hamper the transition towards climate neutral territories (e.g. geographical specificities and similarities)
- informs countries, regions and the local level aiming to develop climate neutral strategies as well as strategies towards a greener Europe.
- promotes networking and involvement of civil societies in actions in relation to climate neutral territories.
- strengthens the capacities and skills of policy makers, on all levels of governance and across policy sectors, in order to further integrate carbon neutral territories in programming and policy making processes.
- supports the capacity development of different territorial actors in planning, managing, implementing, monitoring and evaluating to achieve development towards climate neutral territories.
- contributes to understanding possible territorial consequences, opportunities and challenges of territorial diverse European regions, urban and rural areas following various pathways towards being more green and completely carbon neutral in 2050.

2. The policy setting

This TAP theme is tightly linked to the Cohesion Policy objective of **Greener, low-carbon Europe** - to sustain policy actions towards a clean and fair energy transition, green and blue investments and the circular economy, but also towards climate change mitigation and adaptation and risk prevention and management, and sustainable urban mobility. In addition, it also links to the objective of **Smarter Europe** by addressing an innovative, smart but green digital transformation of the national economic systems as well as regional ICT connectivity. It links as well to the objective of a **More connected Europe** by addressing the sustainable component of enhancing mobility. It is also in line with the objective of **A Europe closer to citizens** by providing input to the rationale for sustainable and integrated development of all types of territories and local initiatives.

This TAP theme is at the heart of the **European Green Deal**, Europe's endeavour to be the first climate-neutral continent by making the EU's economy sustainable and overcoming the challenges of climate change and environmental degradation. It also links to the aims of the **Paris Agreement** to strengthen the global response to the threat of climate change and to increase the ability of countries to deal with the impacts of climate change. In addition, it links to the **2030 Agenda for Sustainable Development** providing a shared blueprint for peace and prosperity for people and the planet, now and into the future by ending poverty and other deprivations hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth - all while tackling climate change and working to preserve our oceans and forests.

This TAP theme correlates well with the objectives of the Territorial Agenda 2030. It addresses the **Green Europe** objective by contributing to a healthy environment, a circular economy and more sustainable connections. It also responds to the **Just Europe** objective by ensuring that the transition towards a climate-neutral economy happens in a fair way.

3. The challenges, trends and drivers behind

Economic activity is a strong driver of energy consumption in all end-use sectors, in particular in the service and road transport sector but also in the residential building sector. ESPON results show that from 2002 to 2012, energy consumption in the building sector declined in most regions considerably. On the other hand, energy consumption for road transport increased in all NUTS3 regions over that same period. Carbon-neutral end-use sectors are still a long way to go. In addition, there is increasing demand that the climate neutral policies and targets (especially energy transition) should be considered from a wider perspective considering, for example, complete production chains, environmental impacts in and outside Europe, as well as resource security.

The main challenge for the **economy** is the process of decoupling economic growth from resource use and transform it into a climate-neutral and more circular economy. Decoupling economic growth from resource consumption is a transition process leading to an economy that ensures that everyone has access to education, healthcare, food and a good quality life while staying in the ecological limits of our planet and restoring our fragile ecosystems when needed. Regions and the local level are well positioned for such a transition. Their size and manageable economic ecosystems, proximity to local environmental and economic problems, as well as to local knowledge to address these problems through relevant actors are instrumental in setting tangible and stable changes. There are however significant challenges that hinder such a transition which are mostly systemic in nature and cannot be overcome by individual organisations alone. One of these challenges is resource use. A green transition is very resource intensive with a highly increased use of, for example, rare minerals that are often mined outside Europe. What options and limitations do we have to obtain the resources needed for a green transition from inside Europe? What are the recycling possibilities of these resources from redundant products (circular economy)? Another challenge related to the green economy is that green digital transition is not always very green. Bitcoins transactions, for example, consume an enormous amount of energy that hamper reaching climate-neutral territories. Policy can help to overcome these challenges by developing a systemic vision on how to reach the goal, set clear targets for the region or local level to further reinforce the vision, strengthen the use and widening the scope of territorial and environmental impact assessment and strengthen the commitments of public entities and other stakeholders. Moreover, supra-regional cooperation, coordination and resource management can help to overcome these challenges as well.

One challenge related to the **environment** is the need to increase the use of natural carbon sinks (natural systems that suck up and store carbon dioxide from the atmosphere) such as parks, nature reserves, street trees, streams and green roofs, i.e. green infrastructures (GI). ESPON research showed that the benefits provided by GI for carbon sequestration at urban and peri-urban scale are relevant and depend for a large extent on contextual specificities, which can include location, local climate, geology, geography, urban or regional structure, governance goals, politics, local skills and knowledge. One major barrier to the deployment of GI is the still insufficient understanding among stakeholders of the way natural ecosystems function, how they can be identified and their benefits quantified, all of which often results in an underused potential for GI development. This TAP could address this challenge by looking into the possibilities to better use integrated spatial planning processes, improve capacity of

decision-makers and better institutional cooperation so that planning authorities at national, regional and local administrative levels could quantify and forecast in a consistent manner the influence of their spatial planning policies on GHG emissions. Climate neutrality in rural regions relates not only to agriculture but also involves mobility, housing, energy etc. and will be addressed as well.

Climate neutrality is not only about environmental policy, it's about every aspect of our lives. This means that challenges related to **social issues** are crucial as well. Because the well-being and quality of life of all citizens is affected, there is a need to involve them in the process. Both by encouraging and using their participation as well as by seeking their broad support and encouraging a behavioural change by citizens. Policy and territorial actions can influence this directly and this TAP intends to look into the questions how participation can be encouraged, how behaviour patterns can be changed and how spatial planning can support that they change. In addition, the use of the SDG in the citizens involvement will be investigated. Involvement of the private level are important as well. Many on the private level are willing to act themselves but often lack information and tools because sustainability pursuits are often top-down and thus exclusive in favour of big-budgets, politically influential entities, extra-organised, resourceful (time and asset-wise) communities. Therefore, this TAP will explore the opportunities for policymakers to make individual appeals and encourage private sector businesses directly, before policy, that takes long to implement, is put in place. Another aspect related to spatial planning for climate neutral territories is how to deal with conflict of interest, for example, between different sustainable development goals, between technologies and between regions. It is important for stakeholders to understand what has to be weighted and how to deal with this.

For (renewable) energy consumption and production, ecosystem services, biodiversity, and natural resources, time series of comparable **sub-national data** (at the long-term) are missing. This type of data is of importance to develop indicators at regional level that are easy to quantify and can be used for monitoring, adjusting and evaluating implementation strategies. Building a mechanism for monitoring and evaluation is key to understanding how a strategy delivers clear benefits to a region. Especially the empirical evidence on the benefits of implementing GI and using natural carbon sinks would require specific monitoring over a certain period of time.

Policy needs:

- Which are the main challenges and constraints in your country/region/cooperation territories to incorporate climate neutral strategies/concerns in your territorial development strategies?
- Do you need any specific evidence and/or support to better analyse this challenge and be able to identify the opportunities and incorporate climate neutral policies in the strategies for your territory?
- Are climate neutral territorial aspects integrated in your national strategic documents/plans or regional development plans? How and since when?
- Is there any knowledge gap that prevents you from delivering a more effective policy response in relation to developing policies leading towards climate neutral territories?
- What is the character of those knowledge gaps? Do they result from difficulty in understanding the territorial development trends and challenges? Or, from lack of access to good practice on how similar places in Europe have dealt with those trends and challenges through the use of projects or policy instruments?
- How do you see ESPON as an instrument to address those knowledge gaps? What would then be your specific evidence and knowledge needs for better capacity development in policymaking that ESPON could address?
- How can policy at different levels and sectors, soft cooperation initiatives and spatial planning influence behaviour patterns towards more climate neutrality?
- How can policymakers include and encourage private sector businesses towards climate neutrality and how to stimulate, encourage and use public participation, in particular youth initiatives, in relation to climate neutrality?

Research support:

- What are the gaps in scientific evidence that could support a better understanding of the territorial aspects of the challenges and opportunities represented by climate neutral territories?
- Is the already available evidence up-to-date or does it require revisiting, e.g. on challenges, trends and drivers behind?
- Does the available research has a sufficient territorial focus and if not what would be needed to complete it?
- What are the current discourse questions and debatable aspects that might be further pursued by ESPON?
- In that, are there any distinct evidence gaps on climate neutral territories that the ESPON Programme would be suited to fill? What are the instruments to achieve it and how could this complement the work by other research bodies?