Just transition measurement approaches

A catalogue for just transition regions

December 2023

Just transition measurement approaches – A catalogue for just transition regions

Aims and scope

This catalogue aims to support Just Transition Fund (JTF) regions in monitoring and evaluating the results of their just transition. To effectively implement their transitions, JTF regions will need to track their progress, learn from mistakes, and measure and evaluate what leads to the success of specific actions. This catalogue compiles existing methods to monitor just transition processes. This catalogue does not go into the details of measurement methods or indicator systems. Instead, it provides an overview of methods used across Europe and outside Europe, to monitor and measure just transition in the spirit of offering JTF regions inspiration in how to begin thinking of and developing indicators to measure just transition implementation and impacts. First, it highlights the monitoring system suggested by the Just Transition Fund (JTF) Regulation as part of the JTF. Second, it looks at how some regions are taking the first steps towards implementing effective monitoring. Third, it provides a brief overview of other European methods. Finally, it illustrates a few more frameworks with a strong focus on social justice indicators which may serve as further inspiration for the way forward.

Who is this toolkit for?

This toolkit addresses individuals and communities in JTF regions who are implementing just transition plans in their local context, including policymakers, researchers, public servants working for regional, local, and national governments, etc.

The Just Transition Fund Regulation

Cohesion policy programmes are monitored through the Common Provisions Regulation (EU/2021/1060, Art. 38-45)[1], which outlines the implementation of Union Funds under shared management. These funds include the European Regional Development Fund (ERDF), Social Fund Plus (ESF+), the Cohesion Fund, and the Just Transition Fund (JTF) amongst others. The regulation indicates that fund evaluations should be conducted throughout the funding programming period to measure impact and raise awareness of the achievements of Union funding.

To support these evaluations and measure the impact of just transition measures, the Just Transition Fund Regulation [2] provides JTF regions with a set of indicators to measure and monitor the implementation of their Territorial Just Transition Plans (TJTPs) and, therefore, use of the JTF.

The indicators cover a broad range of factors which might not all be relevant for each region, Member State or respective project. However, they still provide a useful set of Output Indicators (RCO and EECO) and Result Indicators (RCR and EECR) to measure the progress of activities implemented as part of JTF regions' TJTPs.

REGIO Common Output Indicators (RCO) and REGIO Common Result Indicators (RCR)	
Outputs	**Results**
RCO 01 - Enterprises supported (of which: micro, small, medium, large) (*)	RCO 01 - Enterprises supported (of which: micro, small, medium, large)(*)
RCO 02 - Enterprises supported by grants	RCO 02 - Enterprises supported by grants
RCO 03 - Enterprises supported by financial instruments	RCO 03 - Enterprises supported by financial instruments
RCO 04 - Enterprises with non-financial support	RCO 04 - Enterprises with non-financial support
RCO 05 - New enterprises supported	RCO 05 - New enterprises supported
RCO 07 - Research organisations participating in joint research projects	RCO 07 - Research organisations participating in joint research projects
RCO 10 - Enterprises cooperating with research organisations	RCO 10 - Enterprises cooperating with research organisations
RCO 121 – Enterprises supported to achieve the reduction of greenhouse-gas emissions from activities listed in Annex I to Directive 2003/87/EC	RCO 121 – Enterprises supported to achieve the reduction of greenhouse-gas emissions from activities listed in Annex I to Directive 2003/87/EC
RCO 13 – Value of digital services, products and processes developed for enterprises	RCR 11 - Users of new and upgraded public digital services, products and processes RCR 12 - Users of new and upgraded digital services, products and processes developed by enterprises
RCO 15 - Capacity of incubation created	RCR 17 - New enterprises surviving in the market RCR 18 - SMEs using incubator services after incubator creation
RCO 101 – SMEs investing in skills for smart specialisation, for industrial transition and entrepreneurship	RCR 97 – Apprenticeships supported in SMEs RCR 98 – SMEs staff completing training for skills for smart specialisation, for industrial transition and entrepreneurship (by type of skill: technical, management, entrepreneurship, green, other) (*)
RCO 18 – Dwellings with improved energy performance RCO 19 - Public buildings with improved energy performance RCO 20 - District heating and cooling network lines newly constructed or improved RCO 104 – Number of high efficiency co-generation units	RCR 26 - Annual primary energy consumption (of which: dwellings, public buildings, enterprises, other) (*) RCR 29 – Estimated greenhouse gas emissions

RCO 22 – Additional production capacity for renewable energy (of which: electricity, thermal) (*)	RCR 31 – Total renewable energy produced (of which: electricity, thermal) (*) RCR 32 – Additional operational capacity installed for renewable energy
RCO 34 – Additional capacity for waste recycling RCO 107 – Investments in facilities for separate waste collection RCO 119 – Waste prepared for re-use	RCR 47 – Waste recycled RCR 48 – Waste used as raw materials
RCO 36 – Green infrastructure supported for other purposes than adaptation to climate change RCO 38 – Surface area of rehabilitated land supported RCO 39 – Area covered by systems for monitoring air pollution installed	RCR 50 – Population benefiting from measures for air quality (**) RCR 52 – Rehabilitated land used for green areas, social housing, economic or other uses
RCO 55 – Length of new tram and metro lines RCO 56 – Length of reconstructed or modernised tram and metro lines RCO 57 – Capacity of environmentally friendly rolling stock for collective public transport RCO 58 – Dedicated cycling infrastructure supported RCO 60 – Cities and towns with new or modernised digitised urban transport systems	RCR 62 – Annual users of new or modernised public transport RCR 63 – Annual users of new or modernised tram and metro lines RCR 64 – Annual users of dedicated cycling infrastructure
RCO 61 – Surface of new or modernised facilities for employment services	RCR 65 – Annual users of new or modernised facilities for employment services
RCO 66 – Classroom capacity of new or modernised childcare facilities RCO 67 – Classroom capacity of new or modernised education facilities	RCR 70 – Annual users of new or modernised childcare facilities RCR 71 – Annual users of new or modernised education facilities
RCO 113 – Population covered by projects in the framework of integrated actions for socioeconomic inclusion of marginalised communities, low income households and disadvantaged groups (**)	
RCO 69 – Capacity of new or modernised health care facilities RCO 70 – Capacity of new or modernised social care facilities (other than housing)	RCR 72 – Annual users of new or modernised e-health care services RCR 73 – Annual users of new or modernised health care facilities RCR 74 – Annual users of new or modernised social care facilities

Common Immediate Output Indicators (EECO) and Common Immediate Result Indicators (EECR) for participants (1),(2)	
Outputs	**Results**
EECO 01– unemployed, including long-term unemployed (**)	EECR 01 – participants engaged in job searching upon leaving (**)
EECO 02 – long-term unemployed (**)	EECR 02 – participants in education or training upon leaving (**)
EECO 03 – inactive (**)	EECR 03 – participants gaining a qualification upon leaving (**)
EECO 04 – employed, including self-employed (**)	EECR 04 – participants in employment, including self-employment, upon leaving (**)
EECO 05 – number of children below 18 years of age (**)	
EECO 06 – young people between 18 and 29 years of age (**)	
EECO 07 – number of participants of 55 years of age and above (**)	
EECO 08 – with lower secondary education or less (ISCED 0-2) (**)	
EECO 09 – with upper secondary (ISCED 3) or post-secondary education (ISCED 4) (**)	
EECO 10 – with tertiary education (ISCED 5 to 8) (**)	
EECO 11 – total number of participants (3)	

(*) Breakdown not requested for programming but only for reporting.

(**) Data reported are personal data according to Article 4(1) of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1).

(1) All output and result indicators related to participants are to be reported.

(2) Personal data are to be broken down by gender (women, men, non-binary persons, according to national law). If certain results are not possible, data for those results do not have to be collected or reported. Where appropriate, common output indicators can be reported based on the target group of the operation. When data are collected from registers or equivalent sources, Member States may use national definitions.

(3) This indicator shall be calculated automatically on the basis of the common output indicators relating to employment status.

Table 1: Indicators provided by the JTR.

To read more about the JTR, download the document here in one of the EU languages.

While measurement systems and indicators set the tone for how the implementation of the JTF will be monitored and evaluated, the JTF Regulation also encourages JTF regions to establish governance mechanisms, some of which are known as Just Transition Observatories (JTO), to develop, oversee and implement monitoring and evaluation process. Some regions are even using JTF Observatories as an opportunity to develop a broader monitoring system for just transition in their regions.

Observatories should be designed to allow all involved parties in the transition process to deliberate and learn together from failures and successes. As a governance mechanism, the JTO has higher chances of success when it follows specific, but simple principles of good governance, such as: involvement of diverse actors, transparent operation, self-reflection, accountability, and promotion of accessibility and inclusivity.

JTF regional approaches

As of 2023, a growing number of JTF regions are implementing governing bodies and JTOs. They are the starting point to allow successful monitoring of just transition processes. It is by creating these good governance spaces that actors have the space to monitor, learn and reflect on the progress towards their goals. Below are some examples of how regions and national authorities are concretely implementing:

The Spanish experience

Spanish Institute for Just Transition

In 2020, as part of their Strategic Framework for Energy and Climate, the Spanish government formed the Institute for Just Transition (*Instituto para la Transición Justa)* which developed the Just Transition Strategy[3]. The strategy aims to decarbonise Spain, from its industries to its transport system, and to do so in a way that is fair and leaves no one behind. Key elements of the Spanish Institute for Just Transition and its strategy include:

- "Just Transition Agreements" as an effective tool to reach the goals of the Institute, specifically the phase-out of coal power. Coal regions in Spain are JTF regions working towards just transition. The agreements can be signed by different parties – such as business, civil society, trade unions etc. – in broader or very specific contexts, as long as they are in line with the goals of the Institute. Each agreement is signed by the Ministry for Ecological Transition and other public and private entities involved in the specific agreement. Each agreement develops its own set of measurable indicators to monitor its course.
- Monitoring is a central part of achieving the Institute's goals. An annual report is published to monitor how all agreements are being implemented, and each report is made publicly available on the website.
- An Advisory Board coordinates and monitors the implementation of the overall Just Transition Strategy. It is formed by the Spanish Institute for the Just Transition and by representatives of the relevant ministerial departments, autonomous communities, local entities, trade unions, business organisations, and more. Moreover, the Board intends to set up working groups to monitor the unfolding of specific agreements or measures.
- The Just Transition Strategy implemented by Spanish government has a duration of five years. Towards the end of the five-year period, the strategy will be evaluated and a new, refined strategy will be developed.

The Spanish case presents a few interesting lessons for other regions in transition. In particular, it shows regional institutions that the goals set out by national or regional plans can also be implemented in a decoupled manner. The Just Transition Agreements model shows that accountability, responsibility, and legitimacy can be shared amongst diverse actors, and that monitoring can be tailored to specific actions implemented.

To read more about the Spanish Institute for Just Transition, [click here](#).

The Greek experience in Western Macedonia

The Institute of Energy Development and Transition to the Post Lignite Era (University of Western Macedonia[4]) and the Greek Just Transition Special Authority (JTSA) have also established a territory-level JTO for Western Macedonia (Greece). The JTO is still determining which governance models to follow as well as specific rules to regulate its operation and the system of indicators.[5] There is an intention to set up a national-level JTO to coordinate with the regional entities in the future.

The Just Transition Observatory for Western Macedonia will carry out the monitoring, analysis, documentation, and evaluation in the context of the implementation of the Territorial Just Transition Plan. The JTO will be responsible for developing indicators which match with the objectives of the JTP and TJTPs. The priority of the Observatory is the identification of deviations and discrepancies from the TJTPs' policy objectives and the analysis of these factors to address them.

The objectives of the Observatory include the following:

1. Conducting recording – monitoring – evaluation.
2. Creating a knowledge repository (best practices, literature/reports, datasets, etc.).
3. Producing reports (policy briefs, periodic reports, policy recommendations, etc.).
4. Hosting interactions with citizens, stakeholders, and policy makers.

National Greek observatories for other key topics have also been identified as potential inspiration and context for the development of the Western Macedonian JTO. The Labour Market Observatories in Greece, for instance, have been operating for years and – though not focused on JTF regions – may provide overlaps in terms of indicators as well as systems for monitoring. JTF regions can study their national and regional observatories in other areas (such as labour, legal rights, ethics, emergencies, etc.) to find inspiration and good practices for building just transition monitoring mechanisms.

The Portuguese experience in Alentejo

Following the closing of a major thermoeletric plant, the Portuguese region of Alentejo is now in the proccess of implementing a TJTP which is currently pursuing three main objectives in the region: economic diversification of enterprises, professional training and retraining, and local mobility of workers. To monitor the achievement of the objectives and use of the JTF, the Portuguese region has set up an observatory. **The Observatory for the Just Transition of Alentejo Litoral** has the following objectives:

• Monitor (and communicate) the impacts of the Just Transition fund in the Alentejo Litoral;
• Implement a barometer on the quality of life in coastal Alentejo;
• Implement a collaborative digital platform;
• Contribute to the production of knowledge;
• Reinforce the attractiveness and opportunities of coastal Alentejo.

The Alentejo Observatory reserves seats for two main groups of participants, the first of which is a permanent council presided over by the Regional Coordination and Development Commission of Alentejo (CCDRA). Their main tasks are the following: to monitor the implementation of the TJTP and the spending of the JTF; discuss and select indicators; carry out statistical and analytical work; and creating a collaborative digital platform. On the other hand, there is a general, more "fluid", council. Some of the participants are representatives of local business associations, trade unions, local development organizations, youth associations, training entities, municipalities and more. They take care of tasks such as evaluation of documents submitted by the permanent council, analysis of the use and evolution of selected indicators, and ensuring that the objectives and responsibilities of the Observatory are fulfilled.

The Polish experience in Silesia

In 2022, the Silesian Regional Authorities launched the **"Regional Observatory of the Transition Process (ROTP)",** co-financed by the European Regional Development Fund. The ROTP was created to respond to the need to support the management of the just transition process and engaged participants from the scientific community, employer organisations, trade unions, and NGOs. The first phase of the ROTP was focused on bolstering dialogue, addressing economic diversification, and re- and upskilling, particularly in relation to smart specialisation. After the conclusion of the first phase in October 2023, a second phase will be launched in January 2024 in which the existing activities will be expanded and the ROTP will lay a particular focus on **designing and implementing a monitoring system** for the just transition process.

The tasks in the project are carried out in four modules, supporting the implementation of the just transition process:

1. **Research:** Focus on professional reskilling and the preparation of employees and employers for the upcoming changes, delivering input to strategically monitor and update the region's priorities, directions of action and strategic projects for the transition. Examples of studies carried out so far in the research module include:
→ Predicting future skills and the internal potential of entrepreneurs,
→ The impact of the closure of mining plants on the local environment, e.g. on entrepreneurs and the labour market.

2. **Participation:** Organisation of workshops for stakeholder engagement, e.g. workshops on economic diversification and engagement of local entrepreneurs.

3. **Transition Laboratory:** Development of model solutions related to the just transition, to be tested and implemented in the region.

4. **Implementation:**
→ Development of a just transition stakeholder database and a database of good practices, models, and tools regarding the transformation process,
→ Analysis of the conducted research and drafting of practical recommendations for the just transition process,
→ Monitoring of the ongoing just transition activities, including the development of indicators and the formulation of recommendations.

Existing EU transition measurement tools

Beyond the scope of the JTF, there are several existing measurement systems that could be used as inspiration or reference points when developing indicators and/or JTOs.

Transition Performance Index (TPI)

This system has been developed by the European Commission to measure the performance of countries worldwide through composite indicators. It does so by focusing on four dimensions:

1. **Economic** (education, wealth, labour productivity and research and development intensity, industrial base)
2. **Social** (health, work and inclusion, free or non-remunerated time, equality)
3. **Environmental** (greenhouse gas emissions reduction, biodiversity, material use, energy productivity)
4. **Governance** (fundamental rights, security, transparency, sound public finances)

The TPI indicators are quite standard. However, the innovative element of the TPI is that the score does not depend on one dimension, but on the sum of all of them. JTF regions can therefore learn from the TPI that indicators from different dimensions (such as economic, social, environmental, and governance) can be tracked down independently and then collected into one report to provide a complete overview of the transition process.

To discover more about the Transitions Performance Index, explore the website.

The four dimensions are further broken down into indicators and sub-indicators. The economic dimension, for example, is broken down into the following indicators:

Example: Economic dimension

1.1 EDUCATION, INTERNET USE AND ICT SKILLS

- Gov. expenditure in education per student (% of GDP per capita)
- Internet users
- Proportion of people with ICT skills (composite)

1.2 WEALTH:
- GDP per capita, current dollars

1.3 LABOUR PRODUCTIVITY & R&D INTENSITY
- Output per worker (2011 constant GDP PPP$
- Gross expenditure on R&D (% of GDP)

1.4 INDUSTRIAL BASE
- Gross value added of manufacturing (% of GDP)
- Patent families filed in two offices (per billion PPP$ GDP)

Social justice indicator approaches

The indicators and measuring systems above already show that social justice plays a central role in the transition. They do so by focusing on environmental, social and economic indicators at the same time. However, some existing frameworks out there take a slightly different approach. They support practitioners involved in sustainability transition processes with focusing specifically on questions around social justice. An overview of social justice scores relevant for JTF regions is detailed below.

Leave-no-one-behind (LNOB) score

The Europe Sustainable Development Report is an independent quantitative report which keeps track of the progress of the European Union and its Member States in implementing the Sustainable Development Goals (SDGs). The report is written by independent experts at the Sustainable Development Solutions Network (SDSN) and SDSN Europe. Beyond ranking the well-known SDGs according to European country, they have also developed a leave-no-one-behind score which focuses on inequality across four dimensions: poverty, services, gender, and income. The higher the score, the fewer people are considered left behind. The four dimensions are subdivided in ten subcategories of indicators. Examples include:

Extreme poverty and material deprivation
- People at risk of income poverty after social transfer
- Severely materially deprived people
- Poverty headcount ratio at $5.50/day

Income inequality
- Protection of fundamental labour rights
- Gini coefficient
- Palma ratio[6]

Access to, and quality of, services
- Gap in life expectancy at birth among regions
- Cap in self-reported health, by income
- Gap in self-reported unmet need for medical examination and care, by income

Gender inequality
- Unadjusted gender pay gap
- Gender employment gap
- Share of population inactive due to caring responsibilities

Keys for Sustainable and Just Cities tool

Overly specific indicators might present a challenge, as they are hard to apply across different contexts. Starting from this challenge, the Keys for Sustainable and Just Cities tool provides users with questions to monitor a given sustainability approach from a qualitative point of view. The tool is designed for local policymakers, government administrators, public servants, practitioners, project managers, researchers, urban planners, civil society representatives, and anyone else who is engaging

JTF Regions can take inspiration from this model to, first and foremost, re-centre social justice in their monitoring system. In fact, the nature of the just transition concept itself pushes regions to prioritise the social dimension of sustainability as much as the environmental one.

'Classic' indicators such as carbon emissions are straightforward in the way they are collected and interpreted. Social issues, such as exclusion, are a more complex factor to track. Yet, we still need to, somehow, break it down into tangible numbers. JTF regions can explore the long list of the LBOB score indicators, keeping in mind the following:

- Social issues cannot always be easily measures like environmental issues can.
- Each region needs to first make a thorough assessment of the social challenges it wants to track.
- Social challenges, in the local context, shed light on what kind of indicators you are after.

To discover more about the LNOB score, explore the website here.

in urban sustainability. Although the tool was created for urban settings, it remains relevant for processes taking places in peri-urban or rural settings.

The Keys for Sustainable and Just Cities tool presents a set of 17 keywords, and each keyword offers 1-2 questions for reflection. Below are four examples:

Power
How is power distributed in your sustainability approach? Who has the power to shape it? (Who makes the decision, who takes action, who is involved?)

Accessibility
Who can access and benefit from your sustainability approach and its end product(s), and who does it not reach?

Finance
How is your initiative financed? Does it create decent jobs? (Does it contribute to the social and economic stability of workers?)

Participation
How much of your sustainability approach is already decided before the start of the participatory process and how much is up for discussing?

As JTF regions take the social dimension of sustainability seriously, they face the reality that social justice cannot just be exclusively measured through quantitative indicators. Just transition stakeholders will benefit by having honest, and at times tough, conversations on how social justice issues are tackled in the wider context of (environmental) sustainability. For instance, a public servant from a region might want to understand which cultural views dominate the policymaking of a regional JTO, or how safe participants from a national or religious minority feel in expressing their views during a just transition civil engagement session. In these cases, regions might find that quantitative indicators are not always useful. Instead, this tool offers individuals and communities leading just transition processes the opportunity to come together and reflect qualitatively on questions such as "Which groups of people are typically underrepresented in your society? To what extend are these voices included in your regional just transition approach/process? Whose view are represented?" There are no right or wrong answers here. However, patience, listening and openness are important prerequisites to explore non-obvious questions and start reflecting on how to address potential identified gaps.

Example on how individuals with an official role in a JTF region could apply this tool

Anna is a local civil servant working on mobility projects in a medium-sized Northern European city.

She recognises that her local government has put much effort and money into the transition towards sustainable mobility, mainly in response to the threat of climate change and to support decarbonisation efforts. Yet she observes that while the efforts respond well to the more technological, infrastructural and efficiency issues, there is a need to engage a more diverse group of policymakers and residents to improve mobility at a human scale, for example, through accessibility. She notes that the new green corridor and its cycling infrastructure in the central district of town is hardly ever used by migrants or people of colour. The prices of the nearby housing estates also seem to be rising, which has made the lives of the elderly residents there increasingly difficult. The voices and needs of such historically marginalised communities are often ignored.

Anna shares the question-based tool with her team, and they convene on several occasions to identify gaps and assert priorities for strengthening the city's mobility plan from a social justice perspective. Each team member works carefully with one or more of the 17 Keys for Sustainable and Just Cities to share action strategies as the team collaborates to generate next steps.

To discover more about the 17 Keys for Sustainable and Just Cities, download the colourful poster to guide your just transition planning meetings here.

Approaches from outside the EU

US – Appalachia success factors

Appalachia is an extended region in the eastern part of the US which used to be the main producer of coal in the country. However, as the production of coal intensified in other areas of the US, the extraction of Appalachian coal started to decline, negatively affecting the region's economy and communities. In this context, there are several Appalachian counties that transitioned away from coal dependence while successfully sustaining their economy. A study by the World Bank Group researched the factors that led counties to a successful transition.[7] They are not indicators per se, but they can serve as inspiration to monitor transition processes. This following list highlights the positive factors in those Appalachian counties:

- Sectors' composition and diversification. In Appalachia, employment in farming and self-employment have increased as coal employment decreased.
- Geographic characteristics and agglomeration economies. Urbanisation, proximity to urban areas and agglomeration were not found to have a correlation with the successful transition of counties in Appalachia. However, natural amenities (such as the attractiveness of the natural landscape) have a positive impact on the transition in all successful counties. Tourism is one sector which increased, and therefore may be worth exploring through related indicators.

- Government capacity. Local fiscal autonomy, local government spending, and fiscal pressure all have a positive correlation with a successful transition. Indicators on fiscal policy might therefore have the potential to predict the resilience of regions.
- Health outcomes. Longer life expectancy in successful counties is also correlated with a smooth transition. Similarly, this correlation was found for other mortality indicators (deaths by suicide, alcoholism, violent acts). Lower rates are recorded in counties which experienced a successful transition. Finally, the opioid epidemic is also a relevant factor in Appalachia. Successful counties have a lower rate of drug overdose deaths.

As the local context of European and American regions differs greatly, not all these factors will be relevant for JTF regions. However, the approach can be useful to JTF regions in several ways:

- JTF regions can conduct a comparative analysis between municipalities within a region to identify the factors that show early signs of a smooth transition.
- JTF regions can use the support of universities and researchers to break down success factors into indicators.
- Identified indicators and other measurement systems can be analysed and compared across different European regions.

US – California Communities Environmental Health Screening Tool

The California Communities Environmental Health Screening Tool (CalEnviroScreen) was developed by the California Environmental Protection Agency to understand the impacts of environmental health hazards and pollution on disadvantaged communities across California as well as identify how to use climate funds to support and rejuvenate these communities. The tool uses 21 state-wide indicators of pollution burden and disadvantaged community population characteristic to map pollution burdens and pollution effects across California's communities. For more information about CalEnviroScreen, please refer to the Using data to target support measures for vulnerable communities case study published on the Just Transition Platform knowledge repository.

Social Progress Index and Just Transition Score

Developed by the US-based non-profit organisation Social Progress Imperative, the Social Progress Index (SPI) is a complex set of indicators which are explicitly focused on social outcomes. The SPI is the only large-scale index which does not mix social indicators with economic indicators. It does not, for instance, take GDP as an indicator for social progress. The illustration below shows the set of indicators used for the SPI.

The Just Transition Score compares and ranks 158 countries.[8] It builds on the SPI and matches it with numbers on consumption-based CO_2 emissions per capita. The consumption-based CO_2 emissions indicator depicts emissions caused by (imported and domestic) produced goods and it removes the emissions of those goods that are exported. This gives a more realistic picture of countries' responsibilities for CO_2 emissions. As such, the Just Transition Score shows which countries have been more successful in improving their social indicators while at the same time reducing their emissions.

The SPI and the Just Transition Score can help JTF regions in several ways:

- To gain a deep understanding of the social and environmental performance in their region without mixing it with economic indicators.
- To compare regional performance to other regions within the same country, as well as with other Member States' JTF regions.
- To gain insights on the correlation and causation between social progress and CO_2 emissions – focusing on the actual responsibility for those emissions.

To discover more about the SPI and Just Transition Score, explore the official website here.

BASIC HUMAN NEEDS	FOUNDATIONS OF WELLBEING	OPPORTUNITY
Nutrition and Basic Medical Care → Child stunting → Infectious diseases → Child mortality → Maternal mortality → Undernourishment → Diet low in fruits and vegetables	**Access to Basic Knowledge** → Equal access to quality education → No schooling → Secondary school attainment → Primary school enrollment → Gender parity in secondary attainment	**Personal Rights** → Freedom of religion → Property rights for women → Freedom of peaceful assembly → Access to justice → Freedom of discussion → Political rights
Water and Sanitation → Access to improved sanitation → Access to improved water source → Unsafe water, sanitation and hygiene → Satisfaction with water quality	**Access to information and Communications** → Alternative sources of information → Mobile and landline telephone subscriptions → Internet users → Access to online governance	**Personal Freedom and Choice** → Early marriage → Satisfied demand for contraception → Young people not in education, employment or training → Vulnerable employment → Perception of corruption → Freedom of domestic movement
Shelter → Household air pollution → Access to electricity → Usage of clean fuels and technology for cooking → Dissatisfaction with housing affordability	**Health and Wellness** → Equal access to quality healthcare → Life expectancy at 60 → Premature deaths from non-communicable diseases → Access to essential health services → Availability of quality healthcare	**Inclusiveness** → Equal protection Index → Equal access to Index → Power distributed by sexual orientation → Access to public services distributed by social group → Acceptance of gays and lesbians → Discrimination and violence against minorities
Personal Safety → Interpersonal violence → Transportation related injuries → Political killings and torture → Intimate partner violence → Money stolen	**Environmental Quality** → Lead exposure → Particulate matter pollution → Outdoor air pollution → Species protection	**Access to Advanced Education** → Respect for academic freedom → Population with advanced education → Years of tertiary schooling → Gender parity in advanced education

Figure 1: Social indicators used in the Social Progress Index (SPI)

Reflections and conclusion

This catalogue provides an overview of different methods and frameworks within and beyond Europe to measure the implementation of the just transition. The Just Transition Regulation regulates the use of the Just Transition Fund, and it requires Member States to set up a just transition governance mechanism and a clear set of indicators to measure their performance. Regions are in the initial stages of setting up observatories and developing indicators, however, they are taking concrete first steps, including setting up transparent and participatory governance bodies to monitor and observe the progress of the transition.

It is worth noting that each Member State, region, city, or area involved in the just transition will face its own local challenges and this requires the application of "personalised" indicators. For this reason, this catalogue highlights approaches developed by JTF regions thus far and presents other relevant approaches from outside the EU as well as methods to measure the transition and develop relevant indicators.

Some good practices that can inspire JTF regions in selecting, setting up, and monitoring their indicators include:

- Ultimately, the regional goals and context will guide the selection of indicators and measurement systems. Not only because of what the relevant local factors are, but also because regions need to be able to realistically collect data.

- Regions need to keep their set of indicators and monitoring system flexible and adaptive. The process of implementing a measurement system might shed light on operational issues such as biases in data, usefulness of data, etc.

- Observatories and monitoring bodies are essential to monitor implementation of measurement systems. They should follow good governance and democratic principles, such as transparency and inclusion.

- Regions should be aware of risks that can undermine social justice dimensions of the transition, such as marginalisation of specific communities, as not all kinds of injustice can be measured quantitively. Therefore, qualitative analysis should be considered.

This document was prepared by researchers at ICLEI Europe having conducted desk research, interviews and surveys. Any information and views contained in the present document do not reflect the official opinion of the European Commission. Reuse is authorised provided the source is acknowledged.

This document is part of a series presenting information and lessons learned on policy approaches at national, regional or local level supporting a just transition to a climate-neutral economy. The Just Transition Platform (JTP) assists EU Member States and regions to unlock the support in this transition. Visit the JTP website.

Endnotes

1   Common Provisions Regulation. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R1060

2   Just Transition Regulation. Regulation (EU) 2021/1056 of the European Parliament and of the Council of 24 June 2021 establishing the Just Transition Fund.

3   Government of Spain (2020). Just Transition Strategy.

4   University of Western Macedonia. The University of Western Macedonia in the post-lignite era.

5   Email exchange between Lucia Di Paola and Konstantina Tongaridou (September 2023).

6   The Palma ratio is the share of all income received by the 10% people with highest disposable income divided by the share of all income received by the 40% people with the lowest disposable income. OECD (2023). Data on Income Inequality.

7   World Bank Group (2021). Socioeconomic transition in the Appalachia coal region.

8   Social Progress Imperative (2023). Just Transition Score.