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RAPPORTEURSHIPS "FACING CLIMATE CHANGE"

"LOCAL CLIMATE CHANGE PLANNING - HOW TO TACKLE CLIMATE CHANGE IN OUR CITIES AND COMMUNITIES"

SESSION WITH **DIANA RECKIEN.**



Local climate change planning – how to tackle climate change in our cities & communities

Invited Speaker: Dr. Diana Reckien. University of Twente, Netherlands

Biography	3
Summary	4
We have good plans, but we must implement them	4
There is a divide between Northern and Southern European cities	4
Short-term goals are needed to proceed further	5
The most vulnerable groups and the example of Barcelona	5
Local climate change planning – how to tackle climate change in our cities & communities	6
Progress so far - “cities leading the way”	7
An overview of climate action in European cities	8
Top-down or bottom-up?	11
Are current Local Climate Plans enough?	11
Mainstreaming plans	12
Implementation processes	14
Are vulnerable groups sufficiently considered in Local Climate Plans?	16
Which cities need help and how?	17
Lessons learned	18
References	20

This report is a synthesis of the debate carried out with Dr. Diana Reckien in the conference series “Facing climate change” organised by Catalunya Europa Foundation within the framework of the Re-City project, in collaboration with BBVA. This session, entitled "**Local climate change planning – how to tackle climate change in our cities & communities**" consisted of a public lecture, a seminar with participants from the academic sector of Catalonia and a lunch-debate that brought together actors from the economic, social, political and local business sectors. The activities were held in Barcelona at the Antoni Tàpies Foundation on June 2019. The content order of this report is thematic and does not represent the order in which it was presented by Dr. Diana Reckien.

Biography

Dr. Diana Reckien has been an Assistant Professor for Climate Change since 2014 at the Department of Urban and Regional Planning and Geo-Information Management, part of the Faculty of Geo-Information Science and Earth Observation (ITC), University of Twente, Netherlands. Her work focuses on the interplay between climate change, sustainable development and urbanism.

Dr. Reckien received her PhD in Geography in 2007 from the University of Marburg, Germany, in cooperation with John-Moores-University Liverpool, UK. Her PhD focused on “Intraregional migration in formerly industrialised regions: Qualitative Modelling of household location decisions as an input to policy and plan making in Leipzig/Germany and Wirral/Liverpool/UK”.

She is a Coordinating Lead Author for 'Chapter 17: Decision-making options for managing risk' from Working Group II of the IPCC Sixth Assessment Report (AR6) – to be finalized in the first half of 2022. She is on the Editorial Board of 'Renewable and Sustainable Energy Reviews' (Elsevier, IF 8.050), she was Guest editor of a special Issue "Climate Change and Simulation/Gaming" for the Gaming & Simulation journal, and a special issue of the ISPRS (International Society for Photogrammetry and Remote Sensing) International Journal of Geo-Information on "Innovative Geo-Information Tools for Governance". Before joining the University of Twente, Dr. Reckien worked for 2 years as Adjunct Associate Research Scientist at the Centre for Research on Environmental Decisions at Columbia University's Earth Institute in New York, and 12 years as Project Leader & Post-Doc researcher at the Potsdam Institute for Climate Impact Research. During that time, she also worked as a Social Development Specialist for the Asian Development Bank.

Dr. Reckien has specialized in the interface of climate change and interdisciplinary urban research, with a focus on: Climate change impacts and adaptation (e.g. differences across socio-economic groups), Urban resilience, Differential social vulnerabilities, Climate change mitigation, mainly in the transport and building sector, Climate change gaming, Climate change migration, Intra-regional migration, suburbanization, re-urbanization, shrinking cities, and Climate change policy and practice in intercultural comparisons. She recurrently analyses the preparedness of European cities with respect to climate change planning, evaluating urban climate change adaptation and mitigation plans in European cities with a team of researchers from the EU-28. Most of her research concentrates on large urban areas in Europe, India and the US.

Local climate change planning – how to tackle climate change in our cities & communities

Invited Speaker: Dr. Diana Reckien. University of Twente, Netherlands

Summary

We have good plans, but we must implement them

According to Reckien, professor at the University of Twente and one of the main coordinators of a new report from the UN Intergovernmental Panel on Climate Change (IPCC), cities will face the worst consequences of extreme weather if we do nothing, impacting both economic and social activity. Water shortages will be a major challenge, particularly for Mediterranean cities. Reckien leads a group of European researchers in assessing how cities in the EU-28 can prepare for the climate emergency. For years, they have analyzed city climate plans to see if current measures will be sufficient for complying with the 2015 Paris Agreement and the latest IPCC report outlining the benefits of limiting the global increase in temperature to 1.5 °C.

Achieving these objectives will require reducing CO₂ emissions by 45% before 2030 and reaching zero emissions by 2050. Reckien regrets the fact that governments have not been sufficiently concerned about the sustainability of the planet until recently, even though they have been aware of the problem for more than 40 years. She also warns that the Paris Agreement is not enough, as even if governments did comply with them all, global warming could only be limited to 3°C, a figure nowhere close to the IPCC recommendations. It is clear that we can only get there if we cooperate with each other, that it cannot be achieved individually and that cities can play a very important role.

There is a divide between Northern and Southern European cities

The study led by Reckien began in 2013 with 200 cities and was extended in 2016 to 885 cities, of which more than half have mitigation plans and 26% have adaptation plans. A third of European Union cities have no plan as of yet. However, in those three years, the number of cities that had started to implement climate plans grew, especially in Southern Europe. Although there is still a significant gap between Northern and Southern Europe - countries such as the United Kingdom, Denmark or Slovakia are pioneering local climate plans. The UK created its first local climate plan ten years ago, and usually renews its local plans every two years. In addition, it is one of the few European countries with a state-level law requiring municipalities to create their

own local mitigation or adaptation plans. France, Germany and the Netherlands also have laws of this kind, that also serve to make citizens more aware of the problem.

Short-term goals are needed to proceed further

Reckien believes that the more concrete the plan, the better, since there is a tendency to develop overly general plans with few specific objectives that are often not met. It is just as important to be able to implement and review the outcomes of climate plans, as it is to have one. She recommends setting specific objectives in the short-term, to encourage progress.

Another of Reckien's more worrying findings, is the direct relationship between a city's GDP and the existence of a climate plan. Often cities with higher poverty or unemployment rates do not perceive the climate emergency as an urgent or serious problem and therefore do not prioritise the issue. This is more common in Southern European cities. Intercity, mutual aid networks and partnerships or state laws that allow for the exchange of experiences and resources between cities to fight together against climate change are recommended to overcome this problem. Reckien sees climate change planning as an opportunity to develop new economic activities and job opportunities, and stresses that not just the biggest and wealthiest cities, with the most institutional capacity, but rather all cities, must have their own plans.

The most vulnerable groups and the example of Barcelona

Reckien also warned that some plans do not take into account vulnerable groups, such as the elderly, those with less financial resources, children, the sick and migrants who may suffer more from the consequences of drought, heat or pollution. The urban planning expert recommends that the plans also seek to address social equity issues and suggests that they be made with major citizen participation, so as to also integrate the most vulnerable. Although participation and design of bottom-up plans is always better, sometimes regulations have to be imposed from top.

For Reckien, things can change if everyone contributes, and she encouraged attendees to participate and increase pressure to demand political changes. There is a need to stop playing around, and to produce serious, dynamic and ambitious climate plans.

Local climate change planning – how to tackle climate change in our cities & communities

Reckien’s argument used IPCC data as a baseline for highlighting both the urgency of the climate situation, and the specific pathways which are needed to avoid the worst outcomes. In particular, she referred to the IPCC (2018) Special Report on Global Warming of 1.5 degrees, which outlines the impacts of such a rise in temperature against the impacts of a rise of 2 degrees, and the benefits of keeping to this lower limit.

Two scenarios were outlined for making this possible. The first: to overshoot the mark and then return to it, requiring emissions reductions of roughly 45% on 2010 levels by 2030 to reach net zero by 2075. The second scenario aims to avoid breaching the 1.5 degrees limit, or only slightly breaching it. This requires a 45% reduction on 2010 emissions levels by 2030, net zero CO₂ emissions by 2050 and major reductions in methane emissions, as well as the possible need for CO₂ removal using Carbon Capture and Storage technology.

Reckien stressed, however, that even if the 1.5 degrees limit is not breached, there is still a need for large-scale adaptation, as many regions are still substantially at risk from climate change. For example, low-lying small island states and areas built around river deltas. The 1.5 limit is one that we should follow, and Reckien was cautiously optimistic that it is possible - but only with ambitious action in the short-term.

The Paris agreement was, for Reckien, a “huge, unprecedented step” that demonstrated a clear willingness by nation states to act. However, current reduction goals set out in each country’s Nationally Determined Contributions are far from sufficient, with a 3 degree increase by 2100 predicted if these current goals are maintained. Reckien stressed the need for cooperation between different actors and entities, such as cities and citizens, with the former being the main focus of her presentations and research.

One crucial aspect that requires development is how to correctly define adaptation for local contexts. Reckien mentioned a large gap in the research defining what adaptation actually meant, stating that it was still a fairly vague term. **There is a need for a more substantial definition for what counts as adaptation, and for Reckien the focus of this should be on how adaptation helps the poor and most vulnerable to climate change.** She held that a “pro-poor adaptation strategy” could tackle many problems simultaneously. This focus on the most vulnerable citizens and sectors, forms the basis for much of Reckien’s approach and most recent research, which focuses on the extent to which current plans consider these groups.

Progress so far - “cities leading the way”

Reckien’s research is focused on exploring the extent to which this is true for EU cities, by assessing how EU cities are planning for and implementing action on climate change. She referred to two studies tracking progress - one from December 2013, covering 200 cities or 16.8% of the all EU-27 inhabitants; and another from three years later, covering 885 core cities or 37% of the population in the EU-28. The cities were selected in order to provide a representative sample of EU cities. comprised of large and medium-sized urban areas, which covered approximately 20% of the population in every country (Reckien et al, 2013; 2016).

Before going into her two studies on climate plan progress Reckien presented existing types of plans and their subsidiary forms (Figure 1).

1- **Dedicated Local Climate Plans** focus narrowly on climate change, aiming to reduce emissions by a certain amount and to adapt to adverse weather conditions via specific measures. These plans can then be further separated into three types: nationally demanded plans, locally initiated and independently developed plans and finally locally initiated and climate network supported plans.

2- **Sectoral Local Climate Plans** are another type, also defined as “**vertically mainstreamed**” plans focused on reducing emissions from specific sectors, and/or the impacts of climate change on specific sectors. For Reckien, these types of plans only cover part of the problem.

3- The third type were defined as **Cross- sectoral local climate plans**, or “**horizontally mainstreamed**” plans. These follow a more holistic approach, attempting to address various issues simultaneously. The example of sustainability or resilience plans was given, as in those which try to address climate change alongside other issues, such as noise pollution and a lack of green spaces.

4- **Operational plans** were municipalities start to think about their own operations, such as how they run their offices and buildings for example. There are many such plans in the UK and Germany.

5- **Climate-related plans** are relevant but tackling climate change is not the main goal of these plans.

6- **Areal plans** are case based plans that are usually tried in one part of a city first.

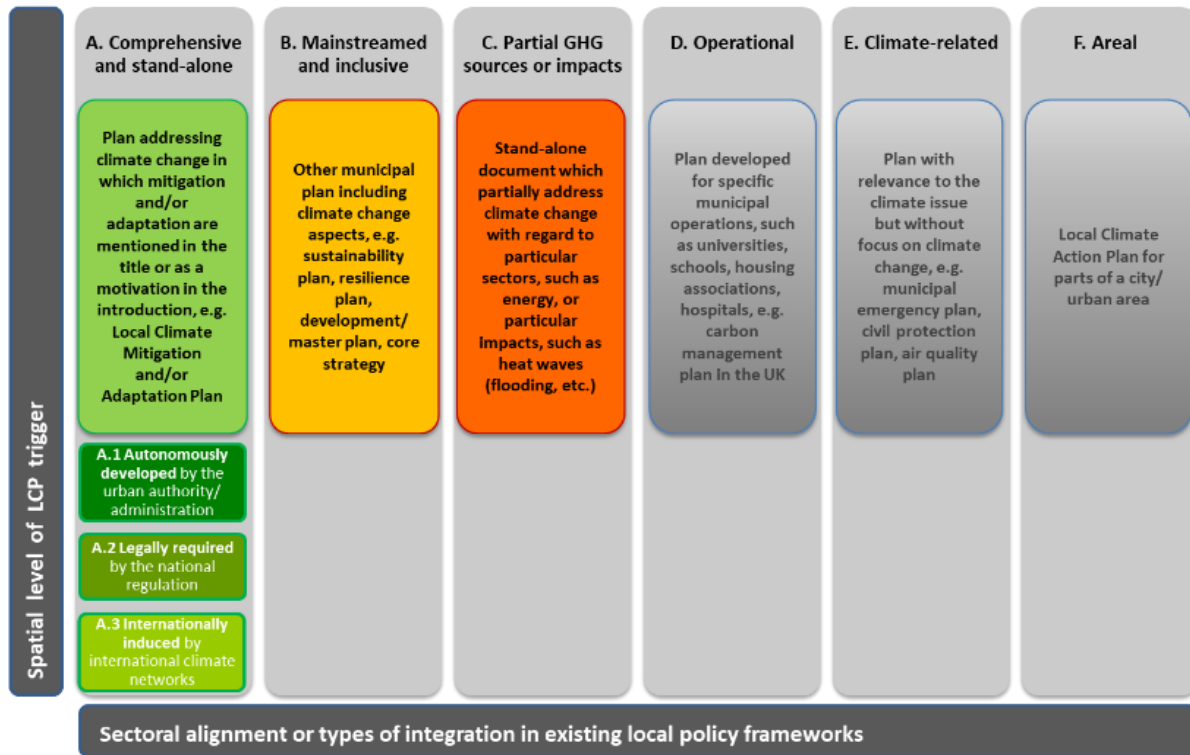


Figure 1. Typology of local climate plans (Reckien et al.,2019)

An overview of climate action in European cities

In a first study, cities were chosen from 11 countries that cover 72.1% of the EU-27 population. Reckien separated the 200 cities analyzed in the study into three categories: **those with no plan (35%), those with a mitigation plan (65%) and those with both an adaptation and mitigation plan (29%)**. Northern European countries, particularly the UK, Denmark and Germany, had the most cities with local plans, while Southern Europe showed a more varied picture. This implied that there was a North-South divide in progress made. A difference in progress was also said to exist between Eastern and Western Europe, with the west having made more inroads into climate change planning measures.

The countries were also color coded to indicate the amount by which emissions would be reduced once all local emissions reduction plans were added together (Figure 2). She gave the example of the UK, where all cities had planned for a 40% or more reduction, resulting in reductions of over 50% nationally. Overall, Northern European emissions reduction targets in local plans were higher than in the South (Figure 2).

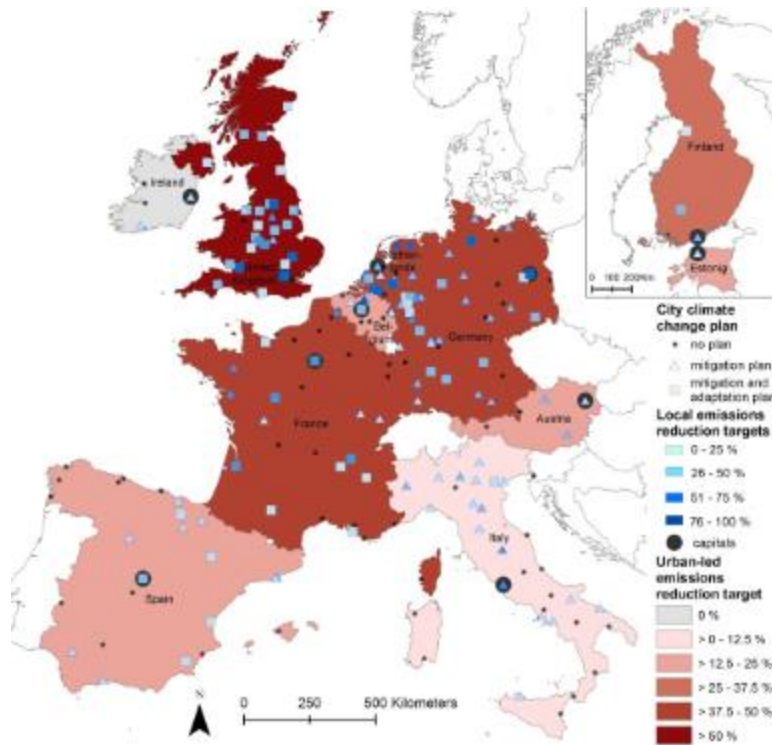


Figure 2 “City sample, climate change plans, and emission reduction targets for 195 of the 200 Urban Audit cities.” (Reckien et al.,2014)

In a more recent study, covering a representative sample of 885 cities in the EU, found that some progress had been made since the previous study. However, 33% of the cities still had no plan to speak of, while 66% had a mitigation plan, and 29% had an adaptation plan. The map shown separated the cities into five categories: those with no plan, those with a mitigation plan only, those with an adaptation plan only (this was relatively rare), those cities which had separate adaptation and mitigation plans, and those which aimed for a more holistic approach, where mitigation and adaptation were integrated under the overarching goal of tackling climate change. Reckien lauded this final category as promoting synergy via the implementation of initiatives that contributed to both mitigation and adaptation. This was most common in countries which had already passed a national climate law requiring municipalities to develop local climate plans, which also contributed to increased awareness, whilst allowing harmonization and providing clear guidelines. She mentioned **France, the UK, Denmark and Slovakia as examples of those countries with a national legal framework for addressing climate change**. All four were highlighted in orange on the map shown in the conference (Figure 3).

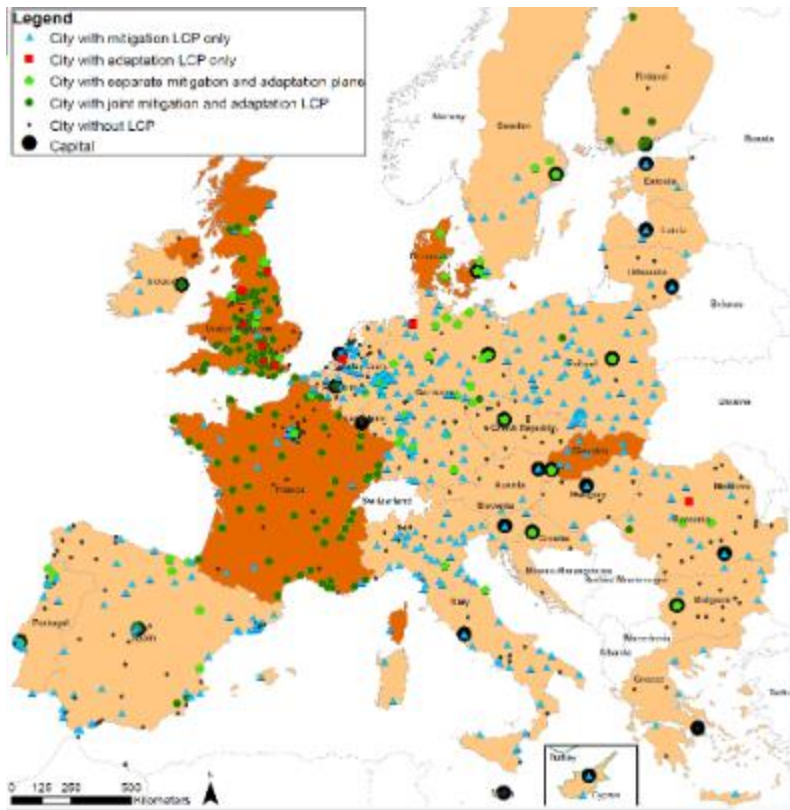


Figure 3 “Status of local climate policies and plans across 885 cities in the European Union.” LCP: Local Climate Plan (Reckien et al, 2018)

Reckien mentioned the UK as being more advanced than any other country in Europe in climate planning, largely because the country’s Climate Change Act was passed and adopted in 2010. Because of this, each city in the UK above a certain size has to have a local climate plan for mitigation and adaptation. Reckien suggested that this was perhaps due to the country’s sensitivity to climate change as it is an island.

Overall, cities with more ambitious climate goals are fewer, capitals or larger cities and wealthier cities. There is also a difference in the regional role between countries. In Germany regions are less important, while in the UK there is a mixed approach. Here, regions are less important, but local councils are often quite large, covering larger areas and higher numbers of people which can make it easier to plan. Therefore, planning may be easier to achieve at a regional level, particularly with regards to water for example, which is often provided within a regional catchment area.

Top-down or bottom-up?

In Reckien’s response to a question on top-down vs bottom-up regulation, she held that the former was simply more effective than waiting for more bottom-up processes. However, she accepted that top-down decisions were not easy to implement, due to not being easily accepted by the wider public. There is a need to find top-down approaches that work for most people, and that open up opportunities for people in more traditional industries. Top down policy would need to be “extremely social”.

One questioner mentioned that mitigation and adaptation require different approaches, and that adaptation needs to be a bottom up process as well. Reckien pointed to the example of the Netherlands, where adaptation is centrally planned. 65% of the country is below sea level, and the state decides which areas require attention and makes investment plans for those regions. Italy on the other hand had no national plans yet many opportunities to act locally without a uniform top-down approach. These opportunities stemmed largely from local level action by Mayors and membership of international climate networks, representing a bottom-up movement in which cities find ways to get the information they need in the absence of national guidelines.

Reckien also compared the United States approach to climate change, which is largely bottom-up, to China’s top-down system. In the United States, many municipalities plan for climate change, and the Trump administration's attitude towards the issue is often not mirrored at those levels. For Reckien, this could be because cities and regions are far closer to the impacts of climate change and therefore are more likely to pursue policies that address it. However, the national level in the United States is of course still important, particularly with regards to funding for research which was heavily cut by the Trump administration. The implications of this for implementation of local plans remains to be seen.

Are current Local Climate Plans enough?

Reckien asked whether progress made so far was enough, in short concluding that it was not. She referred back to the IPCC 1.5 degrees report, concluding that the current trajectory is far from what is needed, and that both fast and ambitious action and a major increase in emissions reductions would be necessary. To reach the 1.5 degree target we have to achieve full decarbonization by 2050. However, the data shows that by 2050, if the planned actions within cities are nationally representative, the 11 countries investigated would achieve a 37% reduction in GHG emissions by 2050, translating into a 27% reduction in GHG emissions for the twenty-eight EU countries analyzed (Figure 4, Reckien D. et al., 2014). That said, Reckien did underline

that it was difficult to calculate the data, and that it was possible that many cities could already be doing better. When comparing different countries, it was shown that Northern European emissions reduction targets achieved by local plans were higher than in the South.

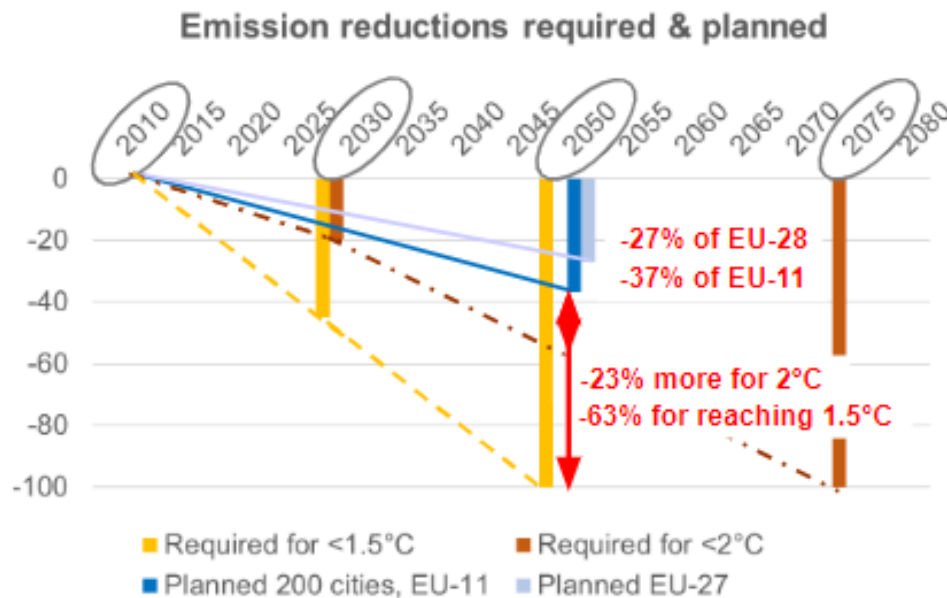


Figure 4. Emissions reductions required and planned.

Retrieved from <https://www.re-city.net/admin/assets/uploads/files/17ca7-diana-reckien-ppt.pdf>

Mainstreaming plans

In her presentation, Reckien also covered the extent to which mitigation and adaptation plans had been mainstreamed. Mitigation plans, such as those focused primarily on the reduction of carbon emissions, were the biggest group, while there were fewer energy and sustainability plans. Adaptation plans on the other hand were more likely to try to tackle the issue holistically - they were three times more likely to be mainstreamed and carried out alongside broader issues and across sectors. These plans have started to consider the most vulnerable, and the data is being analysed to show the extent to which current plans really are considering the impacts on these people and sectors. This led Reckien to stress that, provided these plans were well thought through, they were a good way of extending action into other sectors. However, there was a risk that they would be too general, leading to a loss in ambition.

Mainstreaming was argued to be a good option for initiating the implementation process, but with some caveats. While there were many different plan types, as outlined above, dedicated climate plans were more numerous for mitigation while adaptation was more likely to be mainstreamed. The UK and the Netherlands stood out in terms of the number of plans. For Reckien, this is due to their long history of dealing with environmental threats, to which both countries have historically been more vulnerable, leading to a stronger need to plan for all eventualities. The Netherlands data however, showed no local adaptation plans, due to adaptation being centrally planned in the country. The Netherlands was also mentioned in relation to its efficiency and management of water. The Dutch approach to water management changed 30 years ago - rather than trying to keep the water out, the approach was now focused on welcoming and adapting to increased water by creating floating communities and allowing water back into cities via canals - something that was seen as a more sustainable option. Reckien applauded the country's ability to adapt and suggested that other countries need to learn to live with a lack of or abundance of resources, rather than purely seeing it as a problem. In Eastern Europe, vertical planning was most common, perhaps because of the connection with its lower economic base, requiring more investment in mainstreaming in order to address wider societal issues. There was, however, a gap in the research regarding whether mainstreaming is more effective, as mainstreaming alone does not necessarily guarantee success.

Reckien pointed to the EU's "dual-track" approach, combining dedicated planning with mainstreaming, as perhaps being more effective. Mainstreaming was not necessarily indicative of the effectiveness of implementation, particularly when only sustainability or resilience plans existed. According to Reckien, these types of plans had been previously shown to detract from the climate focus (Lyles et al, 2018; Fainstein, 2018). Therefore, a "dual track" approach was potentially better, as it could simultaneously develop a dedicated and parallel mainstreaming plan avoiding the climate focus getting lost in sustainability or resilience plans for example. EU gender policy was given as an example of such a "dual track" process.

Mitigation plans were often also sectoral, focusing on those sectors which produced the most emissions, such as Energy. These focused on moving towards energy efficiency, energy savings and renewables or transport and waste management, for example.

Implementation processes

Reckien referenced a UNDP study from 2011¹, which provides useful parameters for assessing the implementation side of plans. Entry points, such as the key ministries involved and the vulnerable groups that needed to be targeted, should first be identified. Policy processes, focusing on adaptation and links to poverty reduction should be prioritised, while implementation challenges would also need to be identified. The need to increase budgets for mainstreaming and implementation, and the establishment of mainstreaming as standard practice in tandem with a dedicated climate plan were given as examples of this.

Reckien’s latest research, an on-going analysis of local climate adaptation plans that has up until recently only analysed 76 cities, of which only 28 have legally adopted plans, is assessing local climate adaptation plans based on their inclusion of the seven aspects mentioned in the UNDP study:

1. With regards to **impacts**, 21% of the adopted plans did not outline regional impacts and failed to identify what their plans meant for their local community. They were very broad, copying from national and other regional plans but without specific information on the local area itself, perhaps due to a lack of connection to research institutes, or funding issues. For Reckien this was problematic, as it makes it difficult to outline good measures and targets when local impacts are not fully identified. Temperature and precipitation impacts were those most widely mentioned, when impacts were included, with temperature being the highest perceived risk.
2. With regards to specifying **adaptation goals**, only 64% actually specified them while 36% did not. In addition, only 11% of targets were quantified. Most were just making vague statements regarding how to “improve quality of life”, for example.
3. **Adaptation measures**, as mentioned previously, frequently followed a nature-based solution track, alongside building, land use planning and water management. In 2013, Urban Planning and Development, Water Management and Health Aspects were the focus of a majority of plans, while in 2016 Building, Land-use Planning and Zoning, Water and in particular Environment, Greenery and Biodiversity were included in the greatest number of adaptation plans. This final category, which focuses on adaptation through natural solutions, is now very fashionable. These types of solutions, which include investigating which species fit a city’ natural environment, help to reduce air pollution and heat as well as reducing flooding by providing natural run-off. An example was given

¹ <https://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Climate%20Strategies/UNDP-LECRDS-Guidebook-v17-web.pdf>

of Barcelona’s strategy of planting new trees, which Reckien saw as very progressive and promising.

4. An **implementation** section was often lacking in the plans assessed so far - not even half of them included one. For Reckien, this was hugely problematic as it meant they were simply plans with no explanation of how to use them, dooming them to be discontinued. At the same time, **only 36% of plans prioritised measures, something which for Reckien, also needed to be remedied.**
5. 64% of the assessed plans included a **monitoring and evaluation** section. This was unexpectedly high. The plans also assigned responsibility for monitoring, while 50% mentioned objectives. She mentioned the UNDP’s (2008) suggested indicators for assessing monitoring and evaluation. These included coverage, or more specifically, the number of policies and plans, Stakeholders engaged and/or served and Vulnerable populations served. The impact of plans, such as on Stakeholder’ behaviors using adjusted processes; Stakeholder capacities; Use of information management systems; Stakeholder perception of vulnerability; and Quantitative development outcomes (health, water, food security). Sustainability was another indicator, in other words whether a municipality had the skills and resources to continue adaptation, and finally replication, which relates to the lessons learned and whether networks were formed to disseminate lessons. Cities that are currently showcased that have ingrained the climate issue and are motivated to address the issue seriously, are bringing out new plans every two years with adjusted goals, checking every two years whether they are on track or not. While long-term targets are crucial, many cities have to outline more short-term goals to reach any end target, and to check regularly whether or not they are on the right trajectory.
6. **Participation** was broadly included in the assessed plans, with 79% involving at least some information on participation. Reckien questioned the extent to which vulnerable groups were included in this. Reckien mentioned that simply allowing participation was not enough. It needs to be citizen driven, with cultural aspects also being relevant. There are few places with real participatory planning, and a north-south/ west-east division is clear in relation to this aspect too. She stated how many former communist countries may be continuing to operate with a “command from above” mindset, alongside not being accustomed to being asked to take part in government processes. In addition, although planning should be a process to which all citizens and inhabitants can collaborate on some level, this is difficult to achieve in practice. Bringing people to the table and reaching vulnerable communities when citizens are busy with their day-to-day lives is complicated. At the same time there is an educational factor to consider, whereby some people may

have far less interest in the issue than others.

7. With regards to **communication**, only 18% of plans included a section on this, indicating that outcomes were not communicated to the public. For Reckien, when community goals are not highlighted it can be difficult to initiate changes in individual behaviour. She was positive about the United States' system of communicating what local government had achieved to citizens, for example.

Overall, the plans were often still too vague, requiring improvements in assessment of regional impacts, quantitative specification of goals, the prioritization of adaptation measures and the inclusion and development of implementation processes.

Are vulnerable groups sufficiently considered in Local Climate Plans?

Reckien's latest ongoing research is also considering whether vulnerable groups are being served by each aspect of the plans. The data currently shows that 75% of the plans refer to vulnerable groups in impact and vulnerability sections, and 61% consider them in measures sections. However, **only 9% of participation and 22% of monitoring and evaluation sections mention vulnerable groups as part of the planning process. This produces a high risk of incorrect adaptation processes, as they may not be in line with what vulnerable groups need.** In addition, monitoring and evaluation sections largely fail to check whether processes actually serve those who most need them.

There is also data on which vulnerable people are specifically mentioned in plans, with the elderly, children, lower-income groups and the sick being the mostly widely mentioned in impact and measures sections. Participation and Monitoring and Evaluation sections on the other hand tended to refer to vulnerable groups in more general terms, lacking the necessary detail and reflecting the wider deficit in the attention given to the vulnerable in these sections.

The big gap in research regarding what actually counts as adaptation was also mentioned in relation to vulnerable groups. Many cities having different plans for each specific type of weather is perhaps not the most effective way forward. One way to integrate approaches would be by targeting adaptation towards all climate impacts based on their effects on the poor and most vulnerable. **A "pro-poor" adaptation strategy would allow for many different problems to be tackled at the same way, providing some uniformity in approaches to adaptation.**

Which cities need help and how?

The question now is how the necessary reductions can be achieved, and what can be done to assist struggling cities to develop and implement successful plans. Reckien's (2018) research outlined the difference between larger and smaller cities, concluding that smaller cities were far less likely to have implemented a climate plan, particularly in the 24 member states with no national climate law.

On the other hand, cities with higher GDP were more likely to have local climate plans, alongside cities with strong institutional frameworks and member cities of network such as C40 cities and the Global Covenant of Mayors for Climate and Energy. Contrarily, cities with high unemployment were less likely to be implementing a climate plan, because of different priorities. For Reckien, in these cases it was better not to push for a specifically climate change focused agenda, and instead to integrate climate change into issues that were a bigger priority for that city whilst showing the opportunities that can arise from climate change planning.

Another surprising group of cities that were less likely to have local climate plans were coastal cities. For Reckien, one theory is that many of these cities are accustomed to dealing with extreme weather events, leading to a degree of complacency over the new set of threats arising from climate change.

Overall, there is a clear relationship between finance, institutional context and the ability and want to implement climate plans on a local level. It is clear that coastal cities, Southern European cities, and those with less financial and institutional capacity need the most support. Besides, there was also a clear difference between countries who had passed a specific climate law and those which had not, indicating that a national climate law was a very good start for local progress. Those which has passed climate laws had double the number of mitigation plans, and five times more adaptation plans.

Consequently, Reckien suggested that membership of climate networks, the introduction of national climate laws and partnerships between cities were good options to improve climate plans implementation.

Lessons learned

Reckien concluded that there had been substantial progress, mainly achieved via dedicated and mainstreamed plans. However, plan targets were far from sufficient for keeping to the 2-degree limit, let alone keeping temperature increases to below 1.5 degrees. Greater ambition was clearly needed.

Reckien added that there was a real need to track what was working and what was not, implying that far better monitoring and evaluation measures were needed, particularly in relation to the most vulnerable people and locations. In the seminar she developed this further, arguing that new professions, perhaps supplied by the business community, should be introduced into the process. The implementation and monitoring of plans required people who were specifically trained to carry out the relevant tasks, rather than being left up to planners. She also argued that many cities faced problems implementing measures on the ground, and that greater citizen involvement was needed.

Another lesson concerns the value of mainstreaming. It can clearly impact the effectiveness of a plan by watering down its climate focus, while also having the potential to be excessively complex and time consuming. This supports the argument that the “dual-track” approach could potentially be more effective.

Monitoring and evaluation of local climate plans also needs to be extensively increased, particularly with regards to vulnerable groups. Failure to do this correctly produces a risk of “mal-adaptation”, for which a vulnerability, poverty and gender focus is needed. Further, Reckien highlighted that it was crucial for knowledge and capacity building support to be provided to vulnerable locations and people via climate laws and networks.

Other problems identified included the fact that climate plans would often only look at the planning and output processes, at times bypassing the value of greater citizen engagement, via civil action and requests, and civil interference. Reckien stressed the importance of bottom-up initiatives requesting change from politicians and planners.

A point was also made about leadership. Mayors, and other stakeholders who believe in the cause, are absolutely necessary for the successful implementation of climate change plans. Climate change related government offices may hold more clout when directly related to mayors, rather than environmental departments, which often lack the budget and mandate to enact necessary change, in comparison to other departments.

Finally, it was highlighted that the presence or lack of Green political parties did not have a major effect on how countries approach climate change, with general interest in environmental issues from society at large also being important. Changes in government could have a major bearing on policy, but innovation may be possible even without a more politicised planning approach. The example of Spain was given to demonstrate how this was possible.

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