The mirage of integration: Taking a street-level perspective on the nexus approach

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A B S T R A C T

The nexus approach for sustainable management of natural resources combines environmental management and governance across sectors and scales. This approach, along with other integrative practices, has however seen limited uptake in practice despite its great promise. Drawing on the 'street-level bureaucracy concept', this article examines the role of policymakers in a nexus project, using interviews with international civil servants on a natural resource use team. Barriers and opportunities for the adoption of integrative thinking are identified, and factors influencing the nexus process are found to range from individual, organizational, contextual, and political factors to external actors. The most prominent factor is found to be individual factors, mainly due to discretion during implementation and individual values and norms. Solutions to improve adoption will vary depending on the operational environment and the article highlights the importance of perspective knowledge and a sound theoretical understanding of complex systems involved.

1. Introduction

Recognition of the need for and benefits of intersectoral perspectives and action addressing sustainability challenges are by no means new. Recent examples from policy are the integrative 2030 Agenda for Sustainable Development (UN, 2015) and the European Green Deal (EC, 2019). These instruments seek to address environmental issues by setting many goals while assessing linkages, complementarities and trade-offs between different sectors. Numerous other high-level instruments and commitments, such as the United Nations Framework Convention on Climate Change (UNFCCC),[1] the Convention to Combat Desertification (UNCCD),[2] and the Convention on Wetlands,[3] recognise the vital interlinkages between sectors to attain their respective goals. These instruments call for intersectoral action, partly as a reaction to the overexploitation of natural resources and the impacts that human activities have on land, water, soil and the atmosphere.

The call for intersectoral action comes from recognising that complex environmental problems, such as land degradation, biodiversity loss and carbon emissions, require integrative systemic solutions (Buse et al., 2022). This is further driven by the complexity

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and uncertainty behind the rising tide of environmental challenges that are underpinned by 'wicked' policy problems (Scoones and Stirling, 2020; Head and Alford, 2013; Levin et al., 2012; Verweij, 2011). This commonly refers to policy problems where there is no single solution, a circumstance that heightens the need for crosscutting and intersectoral approaches that can address existing and complex natural-resource challenges.

Conceptually, the idea behind integration is simple. It stems from the notion that society must bring together knowledge and expertise from different disciplines to address significant environmental challenges; if not, significant risks are not mitigated and opportunities may be overlooked. In other words, this implies that sector-focused (or business-as-usual) approaches are insufficient to address natural resource challenges that are highly interconnected (Scoones and Stirling, 2020). This helps to explain why there are ever-increasing calls for the transformation of entire production and consumption systems, including calls for cooperation across sectoral silos and policy pathways that can enable sustainable natural resource use. This backdrop of the growing awareness of the need for integrative thinking gave rise to the nexus approach, a rationale designed to ensure more integrated and sustainable perspectives of natural resource use beyond the traditional sectoral silos that can be applied across scales (de Ridder et al., 2014; Tidwell, 2016; Bleischwitz et al., 2018).

As a cross-sectoral paradigm, the idea behind the nexus approach is that it can generate relevant knowledge about critical interlinkages and interactions between multiple sectors. Knowledge of interlinkages can, in turn, enable decision-makers to identify and develop robust governance and management approaches across a spectrum of natural resources and spatial scales (Ibarrola-Rivas and Nonhebel, 2016; Hoff et al., 2019; Aggestam et al., 2021). More specifically, the nexus approach provides opportunities to promote integrated planning, management and governance of natural resources. Even more, the nexus approach may allow relevant public and private actors to consider complex natural resource challenges while considering system-level trade-offs in important decisions impacting natural resources use.

Despite its great promise, the nexus approach and, in extension, other integrative practices to natural resource management have seen limited uptake in policy implementation and relatively few successful practical applications (ECE, 2018b, 2020). Even if a growing body of scientific research argues that it can add value when tackling complex natural resource challenges as a valuable and practice-orientated tool for integration. This mismatch between 'theory' and 'practice' represents the core concern addressed by this paper. Why is the nexus concept (or integrative approaches) notoriously tricky to apply in practice? And how is the nexus understood and applied by policymakers and programme managers?

This work draws on the 'street-level bureaucracy' concept developed by Lipsky (1980) to answer these questions. The 'street-level
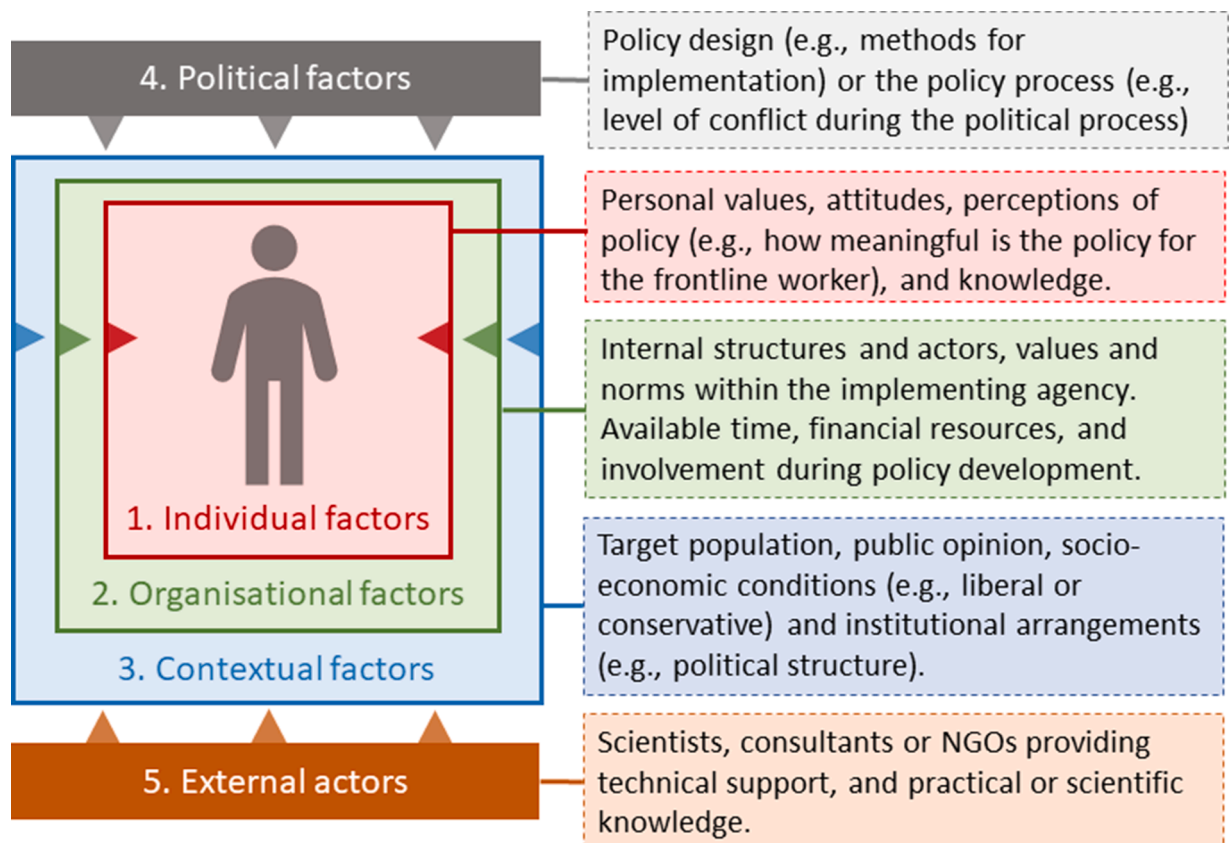

Fig. 1. Factors influencing a street-level bureaucrat.

bureaucracy' concept evolved in response to observed variations in policy outcomes across space, linked to variations in implementing the same policy in various environments. The concept emphasises the role of administrators (or 'street-level bureaucrats') at the frontline in explaining variations in policy implementation. More importantly, the approach focuses on behavioural aspects rather than the institutional framework (May and Winter, 2007; Nothdurfter and Hermans, 2018). The main reason to focus on the street-level bureaucrat is the proposition that people within an institution (rather than the institution itself) play a significant role in deciding whether an integrative approach is accepted or not. In other words, focusing on the street-level bureaucrat may reveal that they lie at the heart of why the nexus approach is so difficult to apply in practice.

The aim of this work is to provide a new perspective on individual agency, specifically the role of individual actors in sustainability transitions (Fischer and Newig, 2016; Geels, 2021; Huttunen et al., 2021). There is a need for a more nuanced and pluralised approach to agency in transitions research, particularly with regards to individual and organisational practices that are shaped by individuals (Huttunen et al., 2021). The paper offers a contribution to this plea by shedding light on the role of street-level bureaucrats in the process of "mainstream actor reorientation" towards sustainability observed in the context of an international organisation (Geels, 2021).

This article starts by providing more information on the street-level bureaucracy concept, integrative management, and the nexus approach, including their links to transition thinking. This is followed by the methods, the main results and findings from the research. Finally, the paper wraps up with a discussion and conclusion, focusing on the role of the individual in the use of integrative models and how this may affect a transition towards sustainability.

2. Background

2.1. The street-level bureaucrat

People working for street-level organisations (or players in public policymaking) are more than just two-dimensional representatives of their organisation; they are individual actors motivated by personal interests and values, institutional functionalities, organisational culture as well as their own political and ideological beliefs (Fig. 1). These individuals tend to operate following their own set of perspectives that do not, at times, perfectly match those of the organisation they work for. Lipsky was one of the first to note the role of street-level bureaucrats in creating a divergence in policy implementation, noting that, rather than an unwillingness to act, a person's coping mechanisms to deal with things such as workplace pressures and uncertainties, coupled with their associated routines and strategies, can significantly impact institutional outcomes (Lipsky, 1980). Lipsky's seminal work helped shift the narrative so that any given organisation can be viewed as a bottom-up system where such bureaucrats link government and civil society. Furthermore, Lipsky's work highlighted the dilemmas people face at the frontline of policy implementation, whereby the bureaucrat becomes a '*de facto* policymaker' (Hupe and Hill, 2007, 2015; Nothdurfter and Hermans, 2018).

Central to Lipsky's argument is a street-level bureaucrat's discretion in interpreting and adapting policies and concepts used in policy documents to different contexts and situations. This process is shaped by the different coping mechanisms that street-level bureaucrats apply while navigating through encounters and mediation with other actors, all of which impact their decision-making given the limited time and resources available to them. For example, as noted in a review by Nothdurfter and Hermans (2018), discretion in this context can be defined by positive or negative characteristics and is significant in determining implementation success. More specifically, discretion can be employed by a street-level bureaucrat to push for policy change or be used as an excuse not to take action (Aggestam, 2014; Hupe and Hill, 2015; Lavee et al., 2018). The central message is that street-level bureaucrats are crucial in shaping implementation spaces and associated policy possibilities (Crewett, 2015; Maier and Winkel, 2017; Brodkin, 2011). More fundamentally, the concept highlights what happens when individuals, acting within their institutions, become policy implementers.

Fig. 1 outlines five factors commonly identified in the literature as affecting decision-making at the street level (Brodkin, 2011; Gofen et al., 2019). These factors range from a person's values and knowledge to the behaviour and opinion of the target population (e.g., public) to values and norms within the implementing agency. While these factors are commonly inter-related and, at times, challenging to differentiate in practice, they can be decisive for implementation outcomes (Prottas, 1978; Maier and Winkel, 2017; Kairu et al., 2018; Lavee et al., 2018; Nothdurfter and Hermans, 2018).

Street-level bureaucrats play an important role in sustainability transitions as they are responsible for translating policy into actions (Tummers and Bekkers, 2014; Fischer and Newig, 2016). They can essentially shape the direction of sustainability transitions (Lipsky, 1980). For example, street-level bureaucrats in the energy sector can play a key role in the transition to renewable energy by designing and implementing policies and programs that promote the use of renewable energy (Asmara and Handoyo, 2017). However, the role of street-level bureaucrats in sustainability transitions is not always straightforward as there can be challenges and barriers to effective implementation. Research has shown that organizational and bureaucratic constraints, lack of information and resources, and a lack of support from other actors, can affect street-level bureaucrats' ability to act in support of sustainability transitions (Winter, 2002; May and Winter, 2007; Tummers and Bekkers, 2014).

The street-level approach is adopted to study frontline behaviour in an international organisation (IO). The aim is to investigate how policy implementers influence the uptake, implementation and/or outcome of a nexus approach. This work is motivated by an evident knowledge gap concerning the role individuals in public service can and do play in the uptake of integrative approaches, especially in the context of IOs.

2.2. Integrative natural resources management and the nexus approach

It is further relevant to have a common vernacular and to characterise what this paper means by integrative natural resources management (INRM) and the nexus approach. The Bonn Conference[4] in 2011 is often considered the point of origin for the nexus approach. In the beginning, work on the nexus focused on links and feedback between different natural resources,[5] mainly resulting from the global energy and food price shocks in 2007 and 2008 (Schlör et al., 2020). Integrative thinking in natural resources management is, however, not new, having got its embryonic start in seminal works and concepts such as the 'spaceman economy' (Boulding, 1966), which is often credited for providing the first reference to a circular system, "Limits to Growth" (Meadows et al., 1972), "Overshoot" (Catton, 1980) and the Brundtland Report (Brundtland Commission, 1987). These and other works have provided a contextual foundation that allows integrative thinking and the nexus approach to be viewed through a historical lens where there has been continuous evolution, in research, policy and practice, to develop more holistic approaches and systems perspectives. Both INRM and the nexus approach aim to address multiple aspects of natural resource use, ranging from the biophysical to socio-political and economic paradigms.

The Food and Agriculture Organisation of the United Nations (FAO) characterises the nexus as a set of "*complex interactions and feedback between human and natural systems*" that affect the natural resource base (FAO, 2014). This resource base refers to natural and socio-economic resources in an environment, such as the interactions between water, food and energy. Nexus interactions correspond to how a natural resource system is being managed and used in terms of interdependencies (e.g., co-dependence on a resource), constraints (e.g., trade-offs and barriers) and synergies (e.g., shared benefits). The nexus is one that recognises and integrates the interdependencies and feedback loops between the supply and demand of water, energy, food and biodiversity as well as broader nexus variables, such as technology, governance, social and political factors (de Ridder et al., 2014; Bleischwitz et al., 2018; Liu et al., 2018).

The nexus approach can generate information about critical interlinkages while enabling robust governance and management across resources and spatial scales. However, a recurring criticism of the nexus approach is that it adds relatively little to existing integrative approaches, such as Integrated Water Resources Management (IWRM), which pursues the integrated and coordinated management of water and land while trying to meet social and ecological needs and promote economic development (Nieuwenhuis et al., 2021). Even "integrated forest management", which tries to reconcile critical trade-offs in forest management (Aggestam et al., 2020) is viewed by some as gaining little from incorporating a nexus approach. One could thus provocatively argue that the 'nexus' is a buzzword that simply seeks to rebrand existing practice (Bleischwitz, 2018; Bleischwitz et al., 2018).

Nevertheless, researchers in the field of sustainability have emphasized the importance of the nexus approach in understanding and addressing the complex and interrelated challenges of sustainability. For example, it has been argued that the nexus approach is crucial for understanding the relationships between water, energy, and food security and for identifying opportunities for co-benefits and mutually reinforcing actions (Hoff et al., 2019). It has also been argued that the nexus approach is useful for identifying the relationships between the availability and uses of energy, water, and food resources. The nexus approach can improve the use of resources by helping to identify these synergies and understanding trade-offs between their different uses (Carmona-Moreno et al., 2018). Moreover, rather than just assessing nexus interlinkages ex post, some proponents claim this approach can be used for ex ante scenarios (Bleischwitz et al., 2018; Daher et al., 2018). As such, the nexus could become a useful tool in transition strategies.

3. Methods

3.1. Case study: the ECE natural resource nexuses study

This paper focus on a nexus project implemented by the United Nations Economic Commission for Europe (ECE). The ECE is a regional commission under the jurisdiction of the United Nations Economic and Social Council (ECOSOC), working in 56 countries across the pan-European region.[6] It is a multilateral and regional organisation of the United Nations that facilitates regional solutions to economic, social and environmental problems, solutions such as negotiated environmental treaties like the Water Convention[7] and the Arhus Convention.[8] It can further be noted that the ECE has engaged in nexus-orientated activities for some time, primarily through the work of the Water Convention and the Task Force on the Water-Food-Energy-Ecosystems Nexus, with the latter being established in 2013.

To address Sustainable Development Goal (SDG) implementation in a more integrated manner, the ECE launched an organisation-wide process aimed at setting out integrated strategies to tackle important sustainability challenges in 2021 (ECE, 2021c). This was done by defining four nexus areas (1. Use of natural resources; 2. Smart cities; 3. Mobility and smart connectivity; 4. Measuring and

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[4] See https://www.water-energy-food.org/. Accessed 9 April 2021.

[5] Natural resources (e.g., water, energy, food and biodiversity) are considered part of the natural world that can be used in economic or social activities to produce goods and services. Material resources are biomass (e.g., crops for food, forest products, energy and bio-based materials), fossil fuels (e.g., coal, gas and oil), metallic minerals (e.g., iron, aluminium and copper used in construction and manufacturing) and non-metallic minerals (e.g., sand, gravel and limestone used chiefly for construction). Breaking down the interdependencies between these natural resources is relevant for considering their role

[6] See https://unece.org/member-states-and-member-states-representatives.

[7] See https://unece.org/environment-policy/water.

[8] See https://unece.org/environment-policy/public-participation.

monitoring progress towards the SDGs) that grouped the ECE's contributions toward the SDGs across critical areas of work for the IO. Operationally, this was realised by establishing four cross-sectoral and inter-divisional teams of ECE experts that conducted an in-depth analysis of current and future challenges for the region. Key findings and recommendations from this work were, in turn, set out in four flagship publications that were presented during a policy exchange ahead of the ECE's 69th Commission session (ECE, 2021c):

- Natural Resource Nexuses in the ECE report (Aggestam et al., 2021).
- Sustainable Mobility and Smart Connectivity (ECE, 2021d);
- Measuring and Monitoring progress towards the Sustainable Development Goals (ECE, 2021a); and
- People-Smart Sustainable Cities (ECE, 2021b).

The work in this article is based on outputs from the cross-divisional cluster team (internal to the IO) that considered natural resource use outside the IO's regular programme of work. The IO established three additional teams to produce the above-listed flagship publications. The focus is on the production of the Natural Resource Nexuses Report (Aggestam et al., 2021). The report was produced over 12 months (2019/2020) and launched on 19 April 2021 (ECE, 2021c). The natural resources nexus team included 16 individuals from seven ECE divisions (environment, forests, housing and land, sustainable energy, statistics, trade and, finally, transport). This included two consultants recruited to produce the report and three support staff (e.g., IT and project management). One key objective for the nexus team was to propose a direction for the IO regarding future nexus-orientated work. The nexus project was, in this way, set up as a scoping exercise to implement more extensive nexus work by the IO.

The production of the Natural Resource Nexuses Report afforded this paper the opportunity to focus on one part of a more comprehensive nexus process, even though no additional nexus activities have been launched to date. While direct contact with the public was limited to the policy exchange (ECE, 2021c; Aggestam et al., 2021), which can be seen as a limiting factor in the application of the street-level perspective, the project was nevertheless implementation driven. It was orientated toward future actions and carried out by street-level staff working for the IO (meaning staff that engage with civil society and the public). More importantly, the nexus team members were in charge of implementing a policy designed by the upper echelon leadership within the IO. The case study is thus in line with the street-level bureaucrat approach in that it allows an analysis of how the people within an institution interpret and apply policy directives received from bodies operating higher up in an organisational structure.

3.2. Approach

The primary data collection tool was a series of in-depth semi-structured interviews with the nexus team members. This allowed for a reflexive process whereby core issues and insights concerning the practical application of the nexus approach (and potential biases) could be considered by the authors (as outlined below). At this point, however, it is also appropriate to note that one of the authors of this paper was involved as a consultant in the development and production of the Natural Resource Nexuses Report. This ensured a beneficial degree of trust with the interviewees, furthermore, the reflexive approach allowed the authors to critically consider how this aspect of positionality might shape the research process, including data interpretation and analysis.

Interview procedure and participants: An invitation email was sent to all the members of the nexus team on natural resource use, together with a brief description of the study and its aim. All members of the team expressed a willingness to participate in the interviews and the respondents' consent was recorded before the start of each interview. This allowed eight interviews to be conducted online via Microsoft Teams between 29 April and 7 May 2021. Two authors of the present paper carried out the approximately one-hour-long interviews in English and the recordings of the interviews have been stored in compliance with relevant privacy regulations. Carrying out joint interviews allowed the authors to address the issue of positionality as this ensured that one interviewer had not interacted with the interviewees in the past. The participants were interviewed during regular working hours and did not receive any compensation for their participation. It is further recognised that the sample size is small, however, it covers 61.5% of the cross-divisional cluster team (exluding support staff) and, more importantly, all ECE divisions that took part in the work. This allowed for significant insights into how the project was operationalised on the organisational level.

Interview structure: The interviews were semi-structured according to an interview guide and the questions were divided into four blocks: (1) defining the nexus, (2) changing perspectives on the nexus, (3) applicability of the nexus approach, and (4) any additional questions (see Appendix 1). In addition, the interviewers commonly asked follow-up questions based on the responses provided by the participants, which helped to encourage an open discussion on the nexus project.

Data processing: All interviews were fully transcribed using Otter.[9] The transcriptions were done automatically by submitting the recordings to the built-in transcription service provided by Otter. Errors in the transcripts were reviewed and manually corrected by the authors. An open-source qualitative data analysis program (QDA Miner Lite) was used to process and tag responses in the raw transcripts.

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[9] See https://otter.ai/.

3.3. Analysis

The first step was for the interviewers to familiarise themselves with the participants' responses while transcribing and processing the interviews using Otter and QDA (Braun and Clarke, 2006). This was followed by the authors discussing common responses (thematic analysis) given by the interviewees to decide how to structure the results. It was subsequently decided to follow the interview guide to structure and present the results, provide an overview and summary of the responses to the respective questions (see Appendix 1) and outline inputs that yield substantive insights into the five types of factors affecting street-level behaviour (individual, organisational, contextual and political factors as well as external actors).

For each block (see 3.2 and Appendix 1), inputs and responses were systemised and recorded in a separate document to cover critical points on how the nexus project was implemented (as outlined in the Results section). The selection of responses was based on their potential to explain the issues at hand. This process was applied iteratively, whereby the results were subjected to revisions during the analysis. In addition, as one of the authors was involved in the nexus project, this allowed for reflexivity, meaning that the authors considered the key observation points from the interview data across the blocks. This enabled the authors to include participant observations that complemented and validated the qualitative results while adding more context and nuance. Moreover, as the other authors were nonparticipants in the nexus project, the reflexive discussion ensured that potential biases in the research outcomes were readily addressed at each stage of the process.

4. Results and analysis

4.1. Defining the nexus

The interview data demonstrate two key points. First, the nexus team did not have a shared understanding of what the nexus approach means in general. Second, there was a lack of clarity regarding how the IO should implement the nexus approach in practice. This is indicated by the varied framing used by the interviewees when referring to the nexus approach, where the two main perspectives or narratives can be extrapolated as:

1. The nexus is an organisational tool or term. The nexus project was seen as a process allowing people from different divisions (or silos) within the IO to meet and discuss. The nexus approach was thus deemed as orientated toward internal learning and was process-related, emphasising knowledge and information exchange.
2. The nexus is a management and governance tool. This means that the individuals believed it was more concretely applicable to the issue of natural resource use, circularity and lifecycle approaches and was a part of a larger tool for the sustainable use of natural resources. The nexus approach is, in this sense, more about interpersonal intermediation and negotiation, providing a practical methodological framework and heuristics for different sectors to cooperate and tackle relevant trade-offs affecting natural resource use.

From the IOs' perspective, these varied understandings of the nexus generated an initial barrier to accepting the new approach as it was unclear what the staff should be doing to implement it, a problem principally caused by the lack of guidance provided by management. For example, the only guidance provided to implementing staff was in terms of project outputs (i.e., "produce a report"), however, no operational definition of the nexus was provided nor were instructions given on the overall long-term objectives of the process. This lack of guidance left a vacuum that allowed for a significant degree of discretion for the nexus team to decide what to do to develop the project output.

Perhaps unsurprisingly, the results ultimately demonstrated not only the general absence of specialised knowledge about the nexus approach but also the lack of a homogenous base understanding of the concept. For example, one respondent argued that the nexus was primarily used as a sound bite meant to attract attention and encapsulate everything the IO is working on, as articulated in the response: "*it is kind of a buzz name to I mean, to define everything, which is cross-sectorial basically, you know, as we have nexuses on sustainable use of natural resources*" (interview F). While another respondent (interview K) highlighted historical efforts over the last 40 years, aiming to make the IO more integrative across divisions and sectoral silos, emphasising that the "*silos of careers and sectors themselves*" make it challenging to break down barriers. While these quotes refer to different problems, both perspectives highlight that the individuals did not share a common understanding of what the nexus approach means and, more importantly, how it could allow people to understand and work across sectors, including path-dependant professional and educational silos.

4.2. Changing perspectives of the nexus

Nearly all the interviewees (7 out of 8) highlighted that the experience of working with colleagues from different divisions operating within the IO, coupled with accessing information on the nexus approach, changed their perspectives on the nexus framework itself. This highlights the importance of having an exploratory phase when designing a nexus process, whereby people can interact, access relevant information and discuss details in-depth. These types of interactions develop a sense of ownership and a shared view of the nexus. The initial interactions between sectors (or divisions) within the IO were also critical in changing people's outlook on the project. Perspectives changed from seeing the project as an added burden in their daily work to something that added value. For example, one respondent noted that "*at this stage, yes, I can understand and see what the others are doing*" (interview F), while another respondent simply put it as "*more knowledge means more communication*" (interview A).

Another crucial point for the nexus project was the team dynamics. More specifically, the natural resources nexus team (see 2.3 and 3.1) got along well compared to other nexus teams established by the IO (ECE, 2021a, 2021b, 2021d). One respondent stated that "*I do not necessarily think that the other groups, so the other nexus teams, had such a positive experience, I can say. I think that has something to do with the personalities involved*" (interview H). This implies that group dynamics had a significant impact in that it helped the team avoid conflicts and find a shared understanding. Moreover, the other nexus projects (not reviewed in this paper) were perceived as not being successful due, in part, to the lack of positive group dynamics.

The critical role of the team members (e.g., openness to new ideas) and the group dynamics (e.g., willingness to engage with others) demonstrate that individual factors (Fig. 1) were quintessentially important for the project's success. One participant highlighted that "*it mostly comes down to the goodwill of the people that are working in the organisation, there is no, I do not want to say mandate, but there is no requirement for them to do so*" (interview L), further emphasising the importance of internal cooperation and coordination across sectoral divides within the IO. This is not to say that contextual factors and external actors were unimportant. For example, contextual factors helped legitimise the team without an explicit mandate. However, without clear instructions or detailed guidance from management, the nexus team could design and take ownership of the process by themselves. The discretion accorded the nexus teams was thus vital for the perceived successful implementation outcome while being, at the same time, entirely dependant on individual factors that shaped the implementation process. It can also be noted that the nexus team engaged in an academic debate on the nexus approach, which helped make the experience internally legitimate. Political (top-down) factors furthermore played a role in framing the projects implementation process, such as the Agenda 2030, in that politics had created a societal demand for integrative approaches.

While it should be recognised that the project was limited in scope (focusing on the production of a report) and organisational management of the process was minimal, all the respondents reported an increased awareness of critical interlinkages across spatial scales on INRM issues. One interviewee noted, "*I think looking at the bigger picture and resource management will be key in the next few years or decade*" (interview R), further highlighting that it was the nexus project that had brought this realisation. This demonstrates that the project had secondary effects in that institutional learning occurred and that the participants may apply this knowledge when designing and implementing future projects. Presumably, the other nexus projects may have had the opposite effect in that negative experiences during implementation may reduce the likelihood of a nexus approach being considered in the future. Discretion may be, in this sense, a double-edged sword, causing both positive and negative impacts.

From a procedural perspective, internal networking and informal information exchange were the primary reason for the successful institutional learning outcome. More specifically, increased awareness allowed people to look beyond their daily routines and tasks as well as increase knowledge sharing. However, the lack of a harmonised approach and adequate guidelines did not allow the project to advance beyond awareness-raising and information sharing. For instance, one respondent mentioned, "*at this stage, yes, we can understand and try to see what the others are doing, but we do not have the capacity, nor time, nor brain capacity to go deeper*" (interview F). This alludes to the absence of long-term objectives (e.g., clarifying the end goal of the process) and the lack of human and financial resources (e.g., providing the necessary institutional support to move beyond networking). In other words, inherent organisational limitations created a barrier to continued learning and integration, even if these were secondary objectives of the project.

4.3. Applying the nexus approach

Enabling integrative thinking is fundamentally about people and goes beyond organisational structures, path-dependant trajectories of professional careers (or the silos of careers) and epistemic communities. As outlined by one participant, "*people like having boundaries; they want boundaries […] because this is what they have been taught*" (interview K). This would suggest that knowledge can also become a barrier. Moreover, being wary of `going the extra length` is a typical human response reinforced by fear (e.g., I might lose my job), perceived power relations (e.g., I may lose control) and accountability (e.g., I do not have to do this). These points emphasise that individual and organisational factors are crucial in setting the framework conditions for integrative thinking and, by extension, implementing the nexus approach. For example, there is a long tradition of cross-sectoral cooperation by the water sector, as demonstrated by the ECE's ongoing nexus work (ECE, 2016, 2017, 2018a, 2018b). However, the IOs water-based nexus work has been maintained for nearly 15 years. This means it has taken a lot of time and effort to build momentum to have an impact. As noted by one interviewee, "*it started from more like analyses, and then the dialogue and identifying joint actions, these elements were there from the start. But the emphasis has shifted more and more into finding solutions, like what actions to take jointly. And then we are now at the point of discussing Nexus solutions and investments and how to finance them*" (interview L). The main point is that it takes a long time to build trust and change people's mindsets from an individual perspective as well as an organisational and political perspective. The implications are that short-term projects, such as the one reviewed in this paper, could not have a significant impact unless it is part of a long-term process. The same respondent emphasised this argument by saying "*a lot of organisations and a lot of initiatives have somehow had some sort of trial, or some project, on the Nexus, but then have not followed through or it has not turned out so fruitful*".

The IO, representing an international and multicultural workplace, also highlights several organisational factors linked to cultural values and norms. Given the inherent diversity in the organisation, it was noted that some people "*cannot work in an environment that does not have some sort of hierarchy. And I think, in general, Nexus work kind of levels the playing field because it is about expertise and substance*" (interview A). Once again, this highlights the importance of people and that individuals from different work cultures (in terms of hierarchy, autonomy and so forth) can find it more challenging to work in unfamiliar professional environments. This implies that power and authority can become decisive factors in the professional functionality of some people. It further highlights how important the team composition (e.g., more top-down control needed) is to the design, implementation and success of collaborative endeavours. In other words, cultural values and norms (individual and organisational) can effectively impede collaboration and

integrative actions, even more so in a competitive and siloed environment. Addressing these barriers would require a tailored process to account for organisational factors affecting implementation outcomes. For example, the nexus project was fortunate to have individuals positively inclined towards integrative thinking; however, the other nexus projects were not as fortunate.

The legislative basis for the work being carried out by the IO can also be seen as significant. This political factor relates to how the IO can operate on the ground. More specifically, the organisation's work is set out by sectoral committees (e.g., water, environment and transport) whose work is based on mandates. Current mandates make it difficult for the respective divisions of the IO (see 3.1) to be integrative unless the requirement to do so is explicitly laid out (or requested) by its contracting parties (Member States). Furthermore, mandates would need to be harmonised across committees to actively work together, which adds another layer of political complexity. This means that the uptake of a nexus approach may be limited unless there is a coordinated and cross-sectoral push from the political top that would allow the terms of reference of the committees to be updated. For example, one respondent noted that the nexus approach is "*not going to go anywhere if you cannot get the countries on board, even at the very lowest level*" (interview L). This highlights that operational change for the IO can only occur if top-down pressure from the Member States exists. The head of the organisation (and top-level management) thus has a vital role in pushing for these changes on the political level.

Table 1
Summary of factors affecting the uptake of integrative approaches and setting conditions for change.

Individual	Organisational	Contextual	Political	External
® Level of training, skills and knowledge on INRM. ® Perceived usefulness of the nexus approach. ® Openness to collaboration and working together. ® Career flexibility and trajectory. ® Team dynamics. ® Process ownership. ® Degree of shared beliefs and patterns of behaviour (e.g., core values, attitudes, norms and ideologies). ® Professional diversity.	® Communication processes (e.g., fora for information exchange and collaboration). ® Workplace culture (e.g., organisational values and norms). ® Organisational structure (e.g., sectoral divisions) and infrastructure. ® Modes of operation (e.g., top-down management). ® Openness of the leadership to engage in integrative activities. ® Availability of dedicated resources (e.g., short versus long term projects).	® System complexity (e.g., number of sectors and actors involved). ® Knowledge of stakeholders (e.g., expertise on the nexus and/or integrative approaches). ® Relevant political networks and civil society organisations (e.g., actors driving and leading change). ® Frontline conditions for integration (e.g., readiness for change). ® Social determinants (e.g., acceptance, attitudes and awareness).	® Regulatory influences, government policies and policy streams supporting (and impeding) integration (e.g., Agenda 2030). ® Political drivers (e.g., political willingness/efficacy to push for and/or accept change). ® Mandates (IO specific and national, e.g., ministries) that set out programmes and services.	® Consultants external to the organisational framework (e.g., a facilitator with substantive knowledge or expertise on the nexus). ® Epistemic communities (e.g., knowledge-based experts and academic communities) working on the nexus.
Conditions for change		Implementing change		Moving towards integration
• Understanding the context (e.g., organisational culture, capacity and infrastructure) and internal relationships. • Reviewing policies influencing integrative capacity. • Identifying individual skills and capabilities (e.g., change agents). • Assessing the readiness for change (e.g., motivation and commitment to change).		• Blended leadership approach (top-down/bottom-up). • Customised implementation plan (e.g., develop clear objective(s) and guidelines). • Establish conditions for ownership of change and empowerment (e.g., open communication and autonomy). • Build a learning environment to develop skills, knowledge, relationships (e.g., learning system for the organisation). • Test and refine the approach. • Systematic monitoring.		• Facilitate shared learning and lessons learnt. • Improvement of outcomes (e.g., feedback). • Frontline engagement (e.g., disseminating results and engaging relevant national/international actors in the field). • Accelerating frontline change (e.g., assess prospects for the sustainable uptake of integrative approaches). • Outline next steps (e.g., provide recommendations for future activities/projects).

Another external (or contextual) factor to consider is the general absence of expertise on nexus and integrative approaches, a problem that is pervasive at both the national level (e.g., in different ministries) and amongst the IO's various committees. For example, it was mentioned that "*the position of the committees represents the position of the silo and the people who tried to coordinate it in the Foreign Office. They know nothing about the topics and do not have any expertise*" (interview K). This refers to the fact that most country representatives are political appointees that do not necessarily understand how integrative approaches could be implemented in practice at various levels within the UN system. Even more, the work of the committees is commonly implemented by pre-existing networks of knowledge-based experts (e.g., working groups) that are usually isolated from and have a limited understanding of sectors beyond their own fields of expertise. Arguably, these epistemic communities are not naturally inclined to be integrative primarily because of individual factors that limit their ability to exchange knowledge and information with other communities (Table 1). This refers, for example, not so much to the institutional and governance-related boundaries of knowledge-based groups but is linked to the behavioural and value-based dimensions of the individual within the epistemic community. This would suggest that different knowledge-based communities should proactively address factors that may hamper integrative collaboration between similar communities in other sectors.

It is also relevant to consider the role of the implementing consultant in facilitating a nexus approach. With regard to the project analysed for this paper, this external actor was partially credited for pushing the process in the 'right direction', with one respondent noting that "*[the consultant], sort of pushed it forward at the right time, at the time when it was possible, when it was still sort of unfolding*" (interview J). While the role of the facilitator is rarely problematised in the organisational context, the above quote underscores the importance of this actor in understanding group dynamics and taking a facilitative approach to ensure that objectives are met with buy-in from everyone involved. That is to say, having the right person in the right place at the right time is fundamentally important to ensure institutional learning.

5. Discussion

Integrative natural resources management is a process enabling socio-economic and environmental change within and between public and private organisations that extends across sectors and disciplines (de Ridder et al., 2014; Tidwell, 2016; Bleischwitz et al., 2018; Liu et al., 2018; Schlör et al., 2020). The idea that natural resources need to be managed from an integrative perspective is no longer a novel notion. The rise of the sustainability concept, calls for transition, and the adoption of the SDGs are amongst many prominent examples of integrated approaches that have gained traction over the last 30 years. To our knowledge, this is the first paper that investigates the role of the street-level bureaucrat (or the frontline policymaker) in implementing a nexus approach or an integrative natural resource use model. The objective of this paper has thus been to address this gap in the literature and to analyse the application of integrative approaches in the day-to-day work of policy practitioners. It is argued here that it is crucial to improve our understanding of how individuals react to the use of integrative models in their work. This information is needed to expand our theoretical understanding of the nexus approach and sustainability transition. Focusing on the individual will complement existing knowledge on institutional and policy change. Most importantly, it will address why the transition to integrative management paradigms has been challenging to achieve in practice.

5.1. Individual factors

The analysis highlights several significant factors that can affect nexus approaches (Table 1.), however, the research indicates that individual factors (Fig. 1) stand out as the most prominent determinants. The individual was found to be decisive in the initial framing and shaping of the nexus approach. These findings align with earlier studies on frontline behaviour (Hill, 2003; Brodkin, 2011; Maier and Winkel, 2017; Lavee et al., 2018), re-confirming the critical role that street-level bureaucrats play in the implementation process.

Three individual factors that can be highlighted as particularly important are:

(1) Openness to collaboration and new ideas (internal to the team);
(2) Ownership of the nexus approach (due to the autonomy of the group and team dynamics); and
(3) Perceived usefulness of the nexus approach (which was seemingly absent in the other projects).

These three factors allowed the generation of a shared vision for the project and for the implementing consultant to set realistic objectives over time (see 4.3). Moreover, it was arguably the values and attitudes of the individuals involved, coupled with their significant autonomy and the lack of oversight by top management, that provided the framework for social and institutional learning on a new concept. If these conditions for change (Table 1) had not been in place, it is unlikely that the project would have been successful.

One limiting factor was the low level of expertise and knowledge on the nexus concept at the onset of the project, which led to disparate views on what the project was actually about. This was further exasperated by the lack of an operational definition of the nexus and the absence of general guidance and support. Nevertheless, the facilitator overcame these initial hurdles, introduced different nexus definitions and engaged the nexus team in an open discussion. This enabled the team to agree on a nexus definition and to co-develop an implementation plan.

All-in-all, it can be noted that the case study project was considered successful by the interviewed officials, having achieved its goals with limited guidance and support from top management. The latter circumstance gave a significant degree of discretion to the team in charge of the project, a point that resonates with earlier findings on frontline behaviour and the importance of discretion over

implementation outcomes (Prottas, 1978; Lipsky, 1980; Winter, 2002; May and Winter, 2007).

These findings furthermore suggest that large public organisations are not necessarily more strategic and deliberate as compared to civil society or less formal organisations (Geels, 2021). The limited managerial oversight, resulting in a nearly accidental autonomy, allowed individual actors and experts to advance innovative ideas, form internal networks and build intra-organisational niches where new framings were constructed. Although such niches are unlikely to lead to a wider second-order change, if not supported by a shift at the institutional and policy levels, they may serve as a testing ground for new concepts and approaches.

In summary, while the objective of the nexus project was not to facilitate social and institutional learning, these were clear secondary impacts from the implementation process. This highlights that future nexus-orientated endeavours (for this and other IOs) should include increased efforts to train international civil servants in systems thinking. IOs should likewise nurture organisational learning environments, such as communities of practice, in which initiatives fostering nexus approaches can be co-created and where the benefits of engaging in integrated projects can be discussed and the related challenges overcome. In other words, capacity building must be a cornerstone of the nexus approach.

5.2. Organisational factors

The organisational environment plays a vital role in the uptake of integrative thinking as well as the credible implementation of new approaches (Table 1). For example, it can be noted that the head of the IO introduced the four high-impact 'nexus areas' (see 3.1) and requested its staff to develop a series of flagship publications for a policy exchange on the need for integrated strategies. This was, however, done without much support from top management.

Two key organisational factors can be noted from the analysis:

(1) Absence of clear objectives. The lack of clarity from the head of the IO resulted in IO staff interpreting the nexus initiative as a potential threat to pre-existing power dynamics within the organisation. For example, since no one told them differently, staff were concerned that the nexus project would be used to re-structure the organisation.
(2) Workplace culture. Pre-existing organisational structures, values, norms and modes of operation made it difficult for the IO to engage in integrative thinking across different divisions. For example, historical organisational structures coupled with path-dependant trajectories of professional careers make it challenging to look outside individual silos.

In other words, how the organisation operates has profound implications on the implementation success of any integrative endeavour. Even more, as implementation was coupled with a high degree of discretion, this created an environment where most staff did not feel the need to engage or take the nexus process seriously.

These findings highlight the importance of having clear objectives and guidelines on the organisational level that can help to avoid the confusion that can easily pervade all aspects of a nexus approach. The results also demonstrate the need for strong leadership to encourage engagement in the nexus process, otherwise, the process is simply not taken seriously at the frontline. Furthermore, the analysis emphasise a key contradiction: having too stringent guidelines may stifle bottom-up inputs and creativity. This underscores that implementation needs to be flexible and adaptive depending on the IO's operational culture and team composition. For example, blended leadership (mixing top-down and bottom-up approaches) could produce better results, but this depends on individual and organisational factors (Gofen, 2013; Macaulay, 2016). Ultimately, the specificity of the operational environment should shape how the nexus process is designed.

5.3. Contextual factors

The nexus project examined here revealed both favourable and adverse contextual factors for integration across the relevant organisational and sectoral divisions, highlighting the context's dynamic, multi-dimensional and variable nature. The analysis demonstrates that the:

(1) Readiness for change was relatively low, such as the knowledge of relevant stakeholders and in-house expertise on the nexus approach.
(2) Sector-specific institutional rules, norms and mandates dictated the form and flow of the IO's work.
(3) Willingness to push for integrative thinking (e.g., from political networks and civil society organisations) was low, indicating that the frontline conditions have not developed to a level that would facilitate change.
(4) The small scale of the project was a key determinant in its success. Increased system complexity, such as a complex setting, multiple sectors and actors on different levels and scales, would have made it exponentially more challenging to implement the same nexus project. In other words, size matters.

These points highlight at least some of the complex and multi-factor processes in play when attempting to implement the nexus approach. This is also indirectly interlinked with social (bottom-up) determinants that influence the political environment, which indicates that factors such as public awareness, societal concerns and attitudes have a role to play (May and Winter, 2007; Winter, 2002; Hill, 2003).

It is essential to consider how contextual factors may influence the nexus process, particularly within an IO setting. That is to say; success will vary significantly depending on the context and, as such, any given nexus project may be successful even if it is limited in

scope (e.g., low number of people involved) and faces significant organisational barriers (e.g., lack of support from top management). Considering context-specific factors helps us understand how to implement the nexus approach. It should thus be an integral part of developing more balanced solutions and nexus pathways in the future, including steps to identify new nexus-relevant activities for the IO, helping policymakers and project managers as well as assist in the consideration of intersectoral issues within the scope of their activities. These are contextual measures that may facilitate the implementation of future nexus approaches.

5.4. Political factors

International policy agendas and instruments calling for an integrated management approach toward natural resources (such as the 2030 Agenda) highlight increasing recognition from the international community of the need for collaborative, integrative and systems-based solutions. These political factors represent one major driver for the IO's nexus initiative (Table 1), which characterised the nexus process as crosscutting work *"helping to drive progress towards nine core SDGs where the UNECE has particular strengths"*.[10] Crucially, however, international and political prioritisation for integration does not equate to the appropriate frontline conditions needed for change because:

(1) Different political paradigms and imperatives exist, such as energy and transport, and these set the pre-conditions for new approaches and the general openness (or acceptance) of change (Allouche et al., 2015; Williams et al., 2018).
(2) Legal mandates provide a formal basis and justification for all activities of the IO that are intertwined with broader policy and legislative frameworks which dictate how the organisation can operate.

Sectors with a history of being more involved with cross-sectoral work tend to be more accepting of integrative approaches. This is demonstrated by the work carried out by the water sector, where the IO has a history of engaging with other sectors through the application of more established IWRM approaches (ECE, 2016, 2017, 2018a, 2018b) The IWRM approach have significant conceptual and methodological overlaps with the nexus approach, which implies that at least some of the groundwork for integrative thinking has been done.

Furthermore, organisational change is unlikely unless mandates explicitly request cross-sectoral communication and cooperation across a wide range of committees and working groups. This problem is exasperated by the fact that mandates must be harmonised across committees. Addressing this political factor requires significant political consensus and pressure from the top (meaning the Member States) for genuine change to happen (Conroy and Berke, 2004; Thakur and Van Langenhove, 2006). Additionally, it should be considered that the respective national ministries and governments involved in the IO`s work are also governed by their own mandates. This means there would likely need to be significant sectoral integration at the national level, especially in the most influential Member States providing funding for the IO, before it can happen at the international level.

The analysis suggests that current nexus thinking inadequately considers the political factors underlying natural resource use, including pre-existing interconnections between sectors. It would be relevant to consider dominant political paradigms, governance settings, and political motivators for change. In other words, the nexus approach will be ineffective without a clear understanding of the underlying political and legislative factors. Change is more likely to arise when political drivers (e.g., political willingness to push for integration) align with nexus thinking, a view that is supported by the observation that pressure from the top-down is imperative to ensure that IOs continue to engage in integrative activities. It is further evident that elements allowing the creation of a nexus need to be established at every governance level, such as common principles and goals at the top level and more tangible goals and directions for those in charge of implementation. One could also argue that such finding suggests more research on how nexus thinking and sustainability transitions could go hand in hand, especially when regime changes ought to be addressed across institutional siloes.

5.5. External actors

The project used as a case study here did not, at the onset, have a clear definition of the nexus. This was primarily due to the lack of guidance by top management (see 5.2), which constituted a barrier to the initial implementation. However, the lack of guidance translated into a significant degree of discretion for the nexus team, a factor that allowed the implementing consultant to introduce and facilitate consensus around a nexus definition and approach. This highlights that:

(1) Appropriate facilitation, which can account for organisational and context-specific factors, can be crucial for implementing a nexus approach.
(2) An external actor can positively harness discretion to influence the willingness to implement a policy and allow for a more favourable implementation outcome.

The external project environment supports earlier arguments that context matters for implementation (see 5.3). In this case, the project benefited from engaging with an external consultant familiar with the organisational culture and had the appropriate knowledge to push for a more favourable implementation outcome.

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[10] See https://unece.org/general-introduction (last accessed 19.09.22).

Interlinked with political and legal mandates (see 5.4), the different epistemic communities that engage with the IO through committees and working groups proved to be another important external factor (Haas, 1992). These are knowledge-based experts from highly specialised communities that set the pre-conditions for integration (e.g., receptiveness to new knowledge). The main message here is that the epistemic communities are at the heart of the IO's organisational structure, reflected through its divisions (see 3.1) and mandates (see 5.4). The nexus process is as such subject to the buy-in from varied epistemic communities for cross-sectoral collaboration.

6. Conclusions

The flexibility of the nexus approach – as an integrative methodology – means that it can be applied to any policy domain and, importantly, to foster transversal strategies, such as initiatives addressing the SDGs. However, as this study argues, there are many barriers and untapped opportunities facing ongoing efforts to move away from established sectoral policies and entrenched sectoral silos.

There have not been many reflective case studies published on the practical application of integrative approaches to natural resources management, in particular regarding the day-to-day work of public officials and policymakers. The empirical evidence and critical discussion on the role of the street-level bureaucrats - or individual policy practitioners – in adopting integrative approaches is therefore limited. This paper offers an initial contribution to address this research gap by discussing a policy practitioner's perspective on applying the nexus concept in an IO.

The present research found a variety of factors that had an impact on the perceived success of the nexus project. These factors were individual, organisational, contextual, political, and external (inner/outer setting of the project) in nature. The individual factors stood out as the most prominent in the case study (see 5.1), primarily due to the team's composition and the degree of discretion and autonomy afforded to the involved individuals to frame and implement the project. It should, however, be emphasised that the relative importance of each factor is highly context-dependant and will vary according to the operational and wider policy environment in which a given nexus project is being implemented (see 5.1 to 5.5).

The individuals' values and norms, notably their openness to embrace new knowledge and change, allowed the project to progress and established a viable framework to effectively implement the nexus concept. Conversely, the organisational factors are considered more of a barrier. These findings complement other empirical work that stress organisational and political factors (e.g., interests and power dynamics) as the main barrier to a nexus approach (Bleischwitz et al., 2021; Nieuwenhuis et al., 2021; Williams et al., 2018). However, somewhat ironically, an absence of active leadership and clear guidelines for the nexus project created a degree of autonomy that allowed new ideas to be proposed and employed with success. Moreover, the organisational, contextual, political and external barriers did not allow the project participants to move beyond awareness-raising and information sharing (Table 1). Even though a degree of institutional learning did occur, this outcome was not intended at the outset of the process as the overall aim was mainly to produce a publication setting out future challenges and possible actions for the IO.

The results presented here also conform with previous work on frontline policy implementation (Lipsky, 1980; Brodkin, 2011; Crewett, 2015; Nothdurfter and Hermans, 2018) and provide further valuable lessons for researchers and practitioners contemplating applying a nexus approach. For example, the paper address what types of incentive mechanisms and supporting policies could work and demonstrate the importance of having perspective knowledge and theoretical understanding of complex systems. The view offered here is that the research on the role of individuals as change agents in organisations warrants robust and continued investigation to improve our understanding of the role of public officials and policy practitioners in adopting novel concepts and policy tools designed to address complex societal challenges. Further research is needed on the role of civil servants as agents of change who can foster or impede the deeper organisational and institutional changes necessary to address sustainability transitions.

All-in-all, the paper demonstrates that the street-level bureaucracy approach can be used to improve our understanding of the implementation and impact of policies aimed at promoting sustainability transition for integrative systems. More specifically, street-level actors play a crucial role in advocating for, implementing and enforcing policies and can have significant influence on the effectiveness and acceptability of policies. For example, the street-level bureaucracy approach can be used to examine how street-level bureaucrats in the transportation sector interact with their counterparts in the energy and land-use planning sectors to coordinate policies and implement sustainable transportation systems. It can help identify barriers and facilitators for the coordination and cooperation between sectors as well as the identification of possible solutions. The street-level bureaucracy approach can also be used to assess the implications of policy design aimed at promoting sustainability transition for front-line actors and relevant communities by examining how different stakeholder groups are affected by a policy or how their participation (or lack thereof) might influence policy outcomes. This offers an additional perspective to the variety of approaches relevant for widening the understanding of the role of agency in transition in the context of large organisations.

Future research could broaden the empirical base in a comparartive perspective and delve deeper into the theoretical implications of Lipsky's work on the role of individual agency in sustainability transitions. For example, one could explore the street-level bureaucrat perspective in the context of multi-level perspectives (MLP) in sustainability transitions. In particular, the research could explore the role of public officials in forming informal intra-organisational and inter-organisational niches where new concepts are sounded and introduced in organisational practice. Another research avenue that could hold considerable latent value is exploring the link between the street-level perspective and current research on organisational learning, institutional capacities and institutional change. The latter could focus on the benefits and trade-offs of high levels of autonomy to individuals and teams responsible for interpreting and translating new concepts in the operations of large and traditionally hierarchical public organisations to allow such concepts to go from theory to yielding tangible real-world successes.

Author contributions

A.F. conceptualised and led the study on the role of the street-level bureaucrat for the nexus approach. A.F. and M.M. designed the analysis; collected the data; performed the analysis; and wrote the paper. R.B. provided inputs and feedback throughout the writing. All authors edited, contributed to, and approved the final manuscript.

Declaration of Competing Interest

The authors declare no competing interests.

Data availability

The data that has been used is confidential.

Appendix 1. Interview outline and questions

The interviewer provides an introduction and then described the paper's purpose, the next steps and where it was intended to be published. Permission to record the interview was also asked at the onset of the discussion.

All interview questions were grouped into four main blocks: (1) defining the nexus, (2) changing perspectives on the nexus, (3) applicability of the nexus approach, and (4) any additional questions. These may have been asked in a non-sequential order, depending on how the discussion progressed with the interviewee.

1 Defining the nexus:
   - Starting from the basics, what is your understanding of nexus? How would you define a nexus today?
   - In your view, does the nexus approach add new dimensions to the discussion and approaches to sustainability? If yes, what are the most important new elements?
   - Do you think that the nexus approach is useful to identify synergies and address "trade-offs" concerning natural resource use?
2 Changing perspective on the nexus:
   - Did your understanding and perspective on the nexus approach change in the process?
     ○ If yes, why do you think your perspective on the nexus approach changed? Did you learn something new from the process?
     ○ If no, why not?
3 Applying the nexus approach:
   - Do you think it is possible to be integrative in your area of work?
   - In your opinion, what does it mean to work across sectoral "silos"?
   - Aside from working with the ECE nexus team, do you think has the nexus approach has a chance to be applied in your area of work?
     ○ If yes, could you provide some examples?
     ○ If no, how do you think the nexus approach should be applied (if at all)?
   - In your perspective, what are (if any) short-term and longer-term benefits of applying a nexus approach for your work and your section/department?
   - Do you see any barriers to applying a nexus approach in your immediate work?
   - Do you see any barriers on the institutional level?
   - How could these barriers be resolved or addressed (if at all)?
4 Any additional questions

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