Moving on a Changing Planet:

Knowledge and Policy on Climate Change and Migration in the Netherlands

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Migration is not only about wealth and poverty. It is about the kind of societies we want to live in. You have a unique opportunity to help shape them, for the benefit of future generations.

- Ban Ki-moon at the Inaugural Global Forum on Migration and Development

It’s like being inside the gigantic worm in The Empire Strikes Back. For a while, you can kid yourself that you’re not inside a gigantic worm, until it starts digesting you. Because the worm is “everywhere” in your field of vision, you can’t really tell the difference between it and the surface of the asteroid you think you landed on.

- Timothy Morton on climate change

Summary

‘‘Policymaking is not simply problem solving. It is also a matter of setting up and defining problems in the first place’’ (in Rose, 1991, p.11). Considering the discrepancy between attention given to migration and climate change in academia and the attention given to this nexus in policy making in the Netherlands, this thesis is an inquiry to this discrepancy. The aim of this study is to shed light on the knowledge process in relation to public policy, with a focus on climate change and migration, in the Netherlands. The main research question is: *what is the relation between knowledge and policy making regarding climate change and migration in the Netherlands and how can this be explained?* Taking theories on knowledge production and knowledge utilisation as primary concepts, it was found that there is an ‘‘epistemic community’’ (Haas, 1992) concerning the nexus. However, knowledge utilisation of knowledge on the nexus is basically non-existent, apart from people realising that the two phenomena do affect each other to some extent. Policy making in the Netherlands happens in silos and does not reflect the synergy that is found between the two policy topics of migration and climate change as presented in literature and research projects. It is argued that this is because of the dynamics of policy making. Politics, for a large share, determines the course of policy action and therefore simultaneously establishes its limits. As a derivative of this, urgency is necessary for a topic such as the nexus to end up on the policy agenda. An integrated approach to the policy design regarding climate change and migration is argued to result in more adaptive, adequate solutions.

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1. Introduction

The relationship between research and public policy in national policy-making is a topic of academic discussion as well as public discourse. When you read a piece of information, for example in a newspaper or online, you may ask yourself where that piece of information came from. If the information is novel to you, you might wonder how many people are aware of this. The questions may arise to whom that information is available and what recipients do with it. If the information that has caught your interest is relevant to public matters and developments, questions related to policy-making may follow. Is your local or national government acting on this information? This question refers to a knowledge process: the dissemination of knowledge in society. As public administration is concerned with how governmental institutions, organisations and people interact and thereby contribute to the shape of society and policies, the topic of 'how knowledge is used in the policy-making process' tends to the demand for transparency, efficiency and higher "quality and quantity of information" (Buckova, 2015, p.391). How much does knowledge influence modern day decision-makers? What knowledge is used, how is this attained and put into practice, if at all?

Current developments including globalisation and new media have effect on the continuous construction of our global politics, economy, cultures, and thus our everyday societies. The developments in our societies shape the framework in which we share and interact with knowledge and information sources. In the most Internet inclusive societies in the world, which are similar to the countries with highest GDP per capita[1], information is easily accessible by the Internet and shared just as quickly. At the same time, people are able to react, interact and influence any shared information through the availability and accessibility of resources that are present. Whilst keeping in mind the reality of inequalities in the world and thus realising this does not apply to everyone around the world, these considerations are valid factors when analysing knowledge processes that take place in our glocal societies[2].

[1] The Internet Inclusive Index includes 86 countries showing the availability, affordability, relevance and readiness of Internet in these countries (Retrieved from: https://theinclusiveinternet.eiu.com/). Countries ranking in the top 20 of both indexes: Sweden, Netherlands, United States, Singapore, Denmark, Germany and Austria. See Appendix I.

[2] "Glocalism" is a term that describes the simultaneous "universalization of the local and localization of the global" (Robertson, 1992, as cited in Sharma, 2008, p.47). As a theory it argues that because of interconnectivity between nearly all places around the world through Internet and other media, local customs and global practices influence each other and change to incorporate influences from all over the world; hence glocal. This is considered a justified conceptualization, as there are only few human societies not included in our globalized global network.

1.1 Why climate change and migration?

As Anderson worded it: ‘‘Public problems are not just ‘out there’ waiting to be dealt with. Policymaking is not simply problem solving. It is also a matter of setting up and defining problems in the first place’’ (in Rose, 1991, p.11). Considering the discrepancy between attention given to migration and climate change in academia and the attention given to the same topic in public administration, this thesis is also an inquiry to this discrepancy.

Climate change in relation to migration is a highly contested topic. It is dealing with two policy fields that have been increasingly in the spotlight of academic discourse and media discussions in the last fifty years. From a European view especially, there has been a lot of debate on migration. This has been sparked since the perceived increase of migrants and refugees, who were forced to leave their homes due to reasons of political instability and war, dispersed from other continents like (eastern) Asia and (northeastern) Africa. Hence it has been a ‘new’ topic of discussion ever since 2015, even though the number of refugees has not significantly increased since 2005. Before this, climate change and environmental concerns have been increasingly on the media agenda since the 2000s, with Al Gore’s film[3] as one of the prime examples, reaching a larger audience and creating momentum and awareness about these topics with a wider public. In this paper both the current and emergent state of policy and research on migration in relation to climate change will be addressed.

The actors who occupy themselves with these topics will be viewed through the lens of social constructivism; one of the ground notions in this thesis is that there is a: ‘‘myriad of ways human beings construe realities around them’’ (Morçöl, 2012, p.21). Interestingly, complexity theorists argue that some public policy topics are not merely social constructions, but also “complex problems” because of other processes that are involved (Morçöl, 2012, p.21). Thereby, Morçöl mentions that global warming is such a complex problem. In order to comprehend the ‘‘complexities of public policies’’ (2012), one therefore has to look at the greater system or structure in which public policies are devised.

Going back to the debate regarding these two topics; it is concerned with the relationship between them. This includes questions as to whether we accept climate as a driver of migration, migration as an adaptation strategy to climate change, acknowledge human-induced environmental change and the effects of international and internal migration on the environment. The concept of ‘‘environmental migration’’, ‘‘climate migration’’ or how else one wishes to label this topic is further assessed in Chapter 2. In that chapter, a theoretical framework is established, which forms the base for the research paper and the methodology. In Chapter 3, research methods will be discussed. In Chapter 4, the policy context of migration

[3] Title: An Inconvenient Truth

in relation to climate change will be analysed. In Chapter 5, knowledge production regarding these topics is addressed. Chapter 6 then deals with knowledge patterns. After that, the results of data collection through document analysis and interviews will be discussed in Chapter 7, which will be followed by the conclusions of this research in Chapter 8.

1.2 Aim of Study

The aim of this study is to shed light on the knowledge process in relation to public policy, with a focus on climate change and migration, in the Netherlands. The main research question is: *what is the relation between knowledge and policy making regarding climate change and migration in the Netherlands and how can this be explained?* This research will therefore entail a single case study. Climate and migration have been widely discussed in migration literature, however, policy on this topic is only recently creating momentum. Therefore, it is not yet part of national legislative systems, such as that of the Netherlands. Accordingly, it will be analysed what the current developments are regarding this issue in the Netherlands, but also internationally. This paper will thus show the interconnectivity between different levels of governance and policy-making: international institutions affecting national and local practices and vice versa. Locality is essential to the effects of policy- and decision-making. However, as Vertovec argued, there lies a danger in applying a structuralist lens to nation-states and their development: "methodological nationalism" (Wimmer & Glick Schiller, 2002)[4]. Hence, this research addresses its questions with a multilevel governance perspective. Taking theories on knowledge production and knowledge utilisation as primary concepts, it will be explored whether an "epistemic community" (Haas, 1992)[5] is present, and how knowledge regarding climate change and migration is used in policy, if at all. There are some examples of public policy research that provide empirical evidence of these knowledge processes. However, a large part of that share of literature remains theoretical, and therefore is not in line with the 'evidence-based' trend in policy making that is currently present. Hence this research will contribute to more empirical research on knowledge utilisation, in this case focused on the nexus of climate change and migration.

[4] Methodological nationalism is understood as the assumption that the nation/state/society is the natural social and political form of the modern world.
[5] A network of professionals with recognised expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain.

1.3 Knowledge Management[6] in Public Administration

According to Wiig (1999), public administrators have a role, next to their other obligations, to ‘‘provide initiatives, leadership, and coordination… to ascertain that society as a whole is served appropriately’’ (p.6). They are to make decisions and policies that will benefit their communities. It is therefore ideal to have public administrators use the most recent and helpful knowledge and information to carry out their duties (Wiig, 1999, p.7). Hence, knowledge acquisition, research and education are of uttermost importance for the functioning of societies and other social structures. This leads to the question in public administration as to how international, national and local governments go about their knowledge management. Therefore, how do organisations and governments utilise knowledge present in their social structures and networks?

When looking at human societies with a systems theory perspective, one could argue that their functioning is similar to an organism, and therefore study their behaviour, characteristics, nature and other capabilities. Applying this to public administration, public policy becomes ‘‘an emergent, self-organisational, and dynamic complex system’’ (Morçöl, 2012, p.9). In that line of thinking, if one then analyses the way a society handles knowledge, this sheds light on its “knowledge system” (Wiig, 1999, p.20). From a structuralist and complexity theory perspective, Morçöl (2012) chose to define policies as ‘‘systems that are comprised of situated activities of human agents, reproduced across time and space’’’, quoting Giddens (1984). This means that policy largely reflects policymakers’ understanding of issues in specific policy fields or that of ‘‘those whom they turn for advice under conditions of uncertainty’’ (Haas, 1992, p.2). The knowledge system of a socially constructed community can thus bring about change in its behaviour. As Henry noted back in 1974, ‘‘new technological and decision-making uses of information affect not only public policy outcomes, but the public policy process itself’’ (p.189). Looking at international cooperation and policy concerning migration and the environment, this thus means that the dissemination of knowledge on those topics may have an impact on consequent policy processes and outcomes.

6 Knowledge management is a term used to describe the management of knowledge, usually in commercial organisations, but also studied in relation to public organisations and governments.

2. Theoretical Framework

The theoretical framework of this paper clarifies which selected concepts will address the main research question. 2.1 will firstly discuss what is understood as knowledge. In 2.2 the epistemology and value of knowledge will be addressed. In 2.3, the relationship between research and policy is debated as well as the concepts of ‘‘knowledge production’’ and ‘‘knowledge utilisation’’; the two main conceptualisations used in this research of the relationship between research and policy.

2.1 What is Knowledge?

Before embarking on this research journey to find out about the knowledge system concerning migration and climate change, an important differentiation has to be made between the concepts of knowledge, data and information. “The Pyramid of Knowledge Hierarchy” (Skyrme & Amidon, 1997) is a conceptualisation of this differentiation, resulting in the following figure:

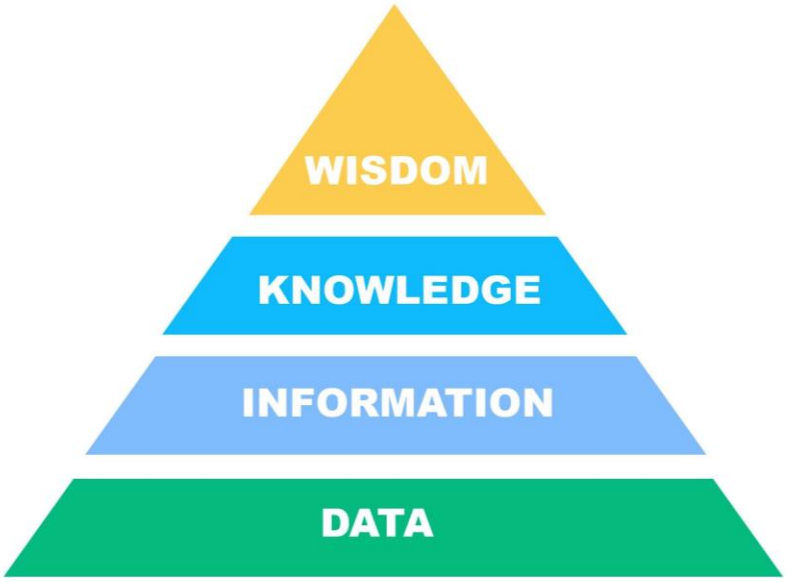

Fig.1. ‘‘The Pyramid of Knowledge Hierarchy’’. Source: Skyrme and Amidon (1997). Retrieved from: UNPAN.

As one is able to deduct from this visualisation, knowledge is distinct from- and more than- mere information and information exceeds sheer data. Data does not inherit any "judgement or interpretation" (Davenport & Prusak, 1998, p.3).[7] Knowledge can be defined as information that has been attributed meaning: next to a larger frame of reference, it is assigned particular value[8]. Hence, the actors who interact with the information are the ones that attribute its value to it. Therefore, certain actors, for example, coming from a left-wing perspective, attribute a value and/or meaning to certain policy subjects and/or discussions different from actors that would approach the same issue, but with a right wing frame of reference. Criticising Davenport and Prusak (1998), Watson claims that knowledge and information ought to be understood as being in a "positive feedback loop" (2001) rather than a hierarchy. This is visualised by Watson in Figure 2.

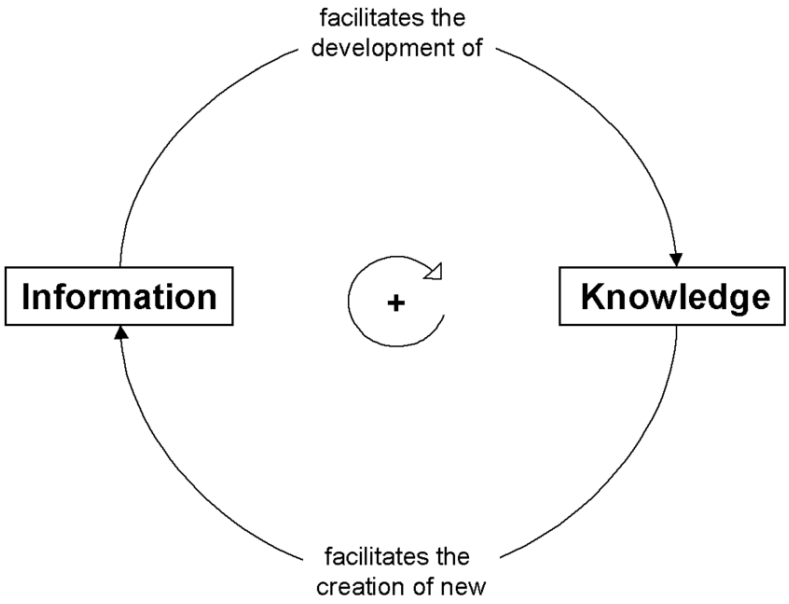

Fig. 2. "The Dynamic Relationship between Information and Knowledge". Source: Watson (2001).

Likewise, in this paper, knowledge is considered as non-static. Knowledge "is a property of agents predisposing them to act in particular circumstances" (Boisot, 1998 in Watson, 2001). What can be taken from Davenport and Prusak (1998)[9] however, is that "Knowledge

[7] Coding and framing data in a way that it becomes comprehensible, turns it into information. It changes shape to become a "message". As Davenport and Prusak (1998) noted, this means that the recipient's judgement of the message (or information) determines the ultimate value of information (p.3). When you analyse information within a certain framework or draw conclusions from information, it becomes knowledge: "valuable information for the human mind" (UNPAN).

[8] Adhering to the constructivist perspective, Haas choses to define knowledge as "the communicable mapping of some aspect of experienced reality by an observer in symbolic terms" (1992, p.21). Although agreeing to this definition, this is not a workable definition for this research paper.

[9] They make a structuralist claim about knowledge, similar to Morçöl's conception of policy (2012) as well as Watson's ideas (2001), confirming this dynamic aspect of (organisational) knowledge.

can be likened to a living system, growing and changing as it interacts with the environment" (Davenport & Prusak, 1998, p.10). This goes to show the changeability of knowledge (inherently carrying an element of uncertainty), public policy and the crossover processes between the two. It is important to consider, that both knowledge and policy are malleable by the actors that interact with them- and those actor's confluent environments, when analysing knowledge systems and processes. Consequently, knowledge system analysis "needs to encompass people, process, technology and culture" (UNPAN). As of such, in this paper, knowledge on climate change and migration is defined as the total of meaningful information existing on the nexus between these two topics.

2.2 Epistemology & the Value of Knowledge

One of the big questions underpinning this paper is how we value knowledge in our societies. What do we deem as the 'use' of research? Is research ought to be useful and therefore only to produce 'useful' knowledge? To answer this, philosophy of science provides a way to tackle this question. By making the following choices regarding epistemology, this research will be continued in line with the chosen methodology as set out in Chapter 3.

In this research paper, the chosen approach to the role of knowledge in society is post-positivist, as well as limited constructivist[10]. This is because it agrees with the possibility of a "consensus on perceived experiences" (Haas, 1992, p.23). This is how we make sense of the world: we can agree on patterns that we perceive and thereafter how we chose to signify[11] empirical input. The result of this is that knowledge has both intrinsic as well as instrumental value[12]. Continuing, the epistemic position of this research paper is limited constructivist and partly relativist. It is acknowledged that the actors that interact with data and information construct its meaning[13]. Knowledge about environmental changes and migration is subject to people's evaluation of information that they receive about the topic and their actions that thereupon follow. Haas (1992) also acknowledges this; he argues that governments' policy actions

[10] If adhering to a pragmatic perspective, research has to produce useful knowledge in order for it to have a purpose or value. Positivist scholars would argue that research has intrinsic value, regardless of humans' perception of research. For radical constructivists, this would not be possible, as nothing can exist independently outside of human perception.

[11] Referring to semiotic theory: how we as humans construct meaning on the basis of "signs" (Peirce, Saussure).

[12] Knowledge, in this paper, is therefore understood as more than "justified true belief" (Pritchard, Turri and Carter, "Value problems"), as it contributes to humanity's progress and development. Thereby, this conviction is in line with Aristotle's argument that "knowledge is a virtue" (Nussbaum, 1987, p.6). Meaningful knowledge has been said to have intrinsic value (Rice, 2013).

[13] People base their validation of anything, including research, on different types of knowledge: intuitive, empirical, authoritative and logical knowledge (UNPAN). The attribution of value to knowledge is therefore subjective, "socially constructed realities" (Berger & Luckmann, 1966).

are "functions of the manner in which the problems are understood by the policy-makers or are represented by those to whom they turn for advice under conditions of uncertainty" (p.2). Additionally, it is considered that policymakers and scholars' perspectives and views of migration in relation to changes in environment are different, not only because of their individual view on this topic, but also due to their environment. Contextual factors, like how actors acquire knowledge, place of employment, role in an organisation and political perspective, result in a certain relation to knowledge on these topics. Likewise, the attribution of value to knowledge on climate change and migration in Dutch society and consequent interactions might differentiate from other environments. Different actors will thus attribute different values to knowledge on climate change and migration.

2.3 Knowledge & Public Policy

The question that follows, is how knowledge and public policy relate to each other. A current trend is "evidence-based policy making", whereby policy-making is ought to be based on facts, statistics and the evaluation of results presented in research (Sanderson, 2002, p.4; Sutcliffe & Court, 2005, p.iii). In academic literature produced insofar that is concerned with the relationship between policy and research, a differentiation is made between "knowledge production" and "knowledge utilisation" (Scholten et al., 2015, p.3), both referring to different interactions with bodies of knowledge and research[14].

2.3.1 Knowledge Production & Knowledge Utilisation: What?

One way to look at the relationship between knowledge and policy is "knowledge production". Knowledge production encompasses the contributions to existing knowledge on a certain topic by research institutes, non-governmental organisations, academic institutions present in the country, and other actors providing information and data. According to Scholten et al. (2015), this also involves how "policy context and dialogues influence research" (p.3). Therefore, research questions regarding knowledge production ask how knowledge on a certain topic is produced, by whom, what methods are used and whether there are any political structures that influence this process. Another method of analysis is called "knowledge utilisation". Knowledge utilisation includes the use of knowledge and research results, for a certain purpose or aim. Therefore, this includes instances in which knowledge is incorporated in one's own 'product', like policy makers adopting particular knowledge in their policies. This results

[14] These two bodies of literature have been analysed and found applicable in various areas of study and policy including health (Elliot & Popay, 2000), security (Weber, et al., 1988), education and technology (Bozeman, 2000).

in a ‘supply chain’ of knowledge, starting with the planting of ‘seeds’ (ideas, data or information), to finally be used in policy documents for instance, as ‘end products’.

Substantial literature has been written on both knowledge production and knowledge utilisation. When analysing these two strands of literature, there is another concept that touches both theoretical paradigms, namely the process of “co-production”: in which policy makers and knowledge producers cooperate and engage into discussions that create a “common knowledge ground” (Edelenbos et al, 2011; Wall, 2015). With the exception of primary empirical research, a lot of academic research is built on previous research and available knowledge. As such, research itself often entails both knowledge production as well as knowledge utilisation. The effect of this conceptualisation of the policy process is that knowledge is attributed a variable value and function at various moments in the process of policymaking. Thus, the attribution of value to knowledge is predominantly subjective, as was established in 2.2; however, the processes of knowledge production and knowledge utilisation, and if applicable, thereby the process of co-production, can be analysed objectively.

2.3.2 Knowledge Production & Knowledge Utilisation: Who?

Considering these knowledge processes, an influential author is Caplan (1979). He saw scientific and academic professionals and policy makers as distinct communities, for whom it is necessary to “bridge” and increasingly communicate. This rationalist perspective assumes a limitation of connections between various actors in a policy network, dubbing the researchers and policy makers as knowledge “producers and users” (1979, p.460). In that setting, knowledge production and utilisation happens in two secluded bubbles. However, as Caplan himself immediately noted as well, it is rarely ever the case that these two communities are actually independent and separate in practice (1979). Researchers and policy makers’ environments, individual motivations, structure of the organisation they work for and other external influences hugely influence their functioning and interactions (Rich & Oh; Larsen, 1980, p.424)[15]. Therefore, next to these producers and users, Caplan claimed that there are “knowledge brokers”, who work in between these two ideal-type worlds (1979). Knowledge brokers are understood to be “intermediaries… whom contribute to the information flow” (Conandriopoulos et al., 2010, p.455). Therefore, actors that both produce and utilise knowledge would be classified as knowledge brokers. This is similar to the finding that most civil servants

[15] Rich and Oh’s integrated model of knowledge utilisation (2000), which acknowledges these factors and provided a model that includes the factors of “characteristics of information” (content and source), decision-makers motivation/attitude, nature of policy issues and organisational characteristics (political environment and bureaucracy in which the actors are situated) (Oh & Rich, 1996, p.9).

in modern bureaucracies "regard themselves as technicians, policymakers, and brokers" (in Haas, 1992, p.10).

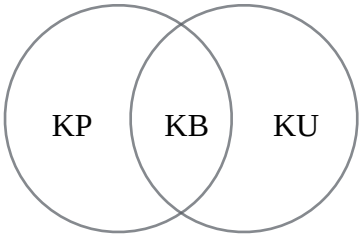

Fig. 3. Visualisation of knowledge producers, knowledge users and knowledge brokers as conceptualised in Caplan (1979).

In this paper it is argued that there is a wide variation of actors which (at times) behave as knowledge brokers. The chaotic reality of daily life, human interactions and subjectivity regarding information and knowledge form the context of knowledge transfer. As Beyer and Trice (1982) noted, "[knowledge] utilisation is a complex behavioural process" (p.595). Therefore, in this research, a multi-dimensional, interactive framework between knowledge producers, knowledge users and others is adapted, which is more capable of capturing these dynamics of the policy process. This results in a complex understanding of knowledge processes (Contandriopoulos et al., 2010). This complexity may partly explain the "big gap between knowledge and its application in policymaking", as often stated to be present (Rich & Oh, 2000, p.173; Caplan, 1979; Weiss, 1976). A more fluid understanding of knowledge users and producers has to be accommodated; as there is a multi-dimensional spectrum on which actors drift. This results in actors sometimes behaving more similar to the ideal-type functioning of a knowledge producer, knowledge user, or knowledge broker[16].

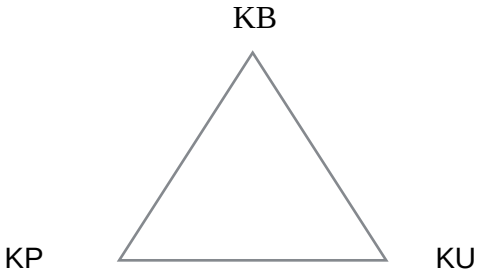

Fig. 4. Multidimensional spectrum on which actors move

[16] To determine the location, actors and effect of policy learning and discussed knowledge processes, there are multiple theories possible to consult (Bennet & Howlett, 1992). For many theories, it is impossible to define exactly who are "in-group"; whether looking for a "policy subsystem" as defined by Sabatier and Jenkins-Smith (1978), or an "epistemic community" as Rose conceptualised (1991).

2.3.3 Continuing Knowledge Production: Epistemic Communities

The epistemic community theory (Haas, 1992) was chosen to analyse knowledge production concerning climate and migration, other than, for example, the advocacy coalition framework, policy networks, or other groups, as it complements the social constructivist approach to the knowledge processes in this research. This explains the groups of actors ‘‘sharing policy relevant knowledge, and […] the processes explaining the use of this knowledge in decision-making’’ (Meijerink, 2006, p.1061). Consequently, it has to be established how one can identify an epistemic community in practice. When these factors have been determined, it is possible to research whether such an epistemic community exists concerning climate change and migration.

‘‘Epistemic communities’’ have been theorised by Haas (1992) in relation to policy-making. He defined transnational ‘‘epistemic communities’’ as: ‘‘a network of professionals with recognised expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain’’ (1992, p.3). These epistemic communities aim at solving the same issue or work in the same policy area, such as climate change and migration (Haas, 1992, p.3). Haas explains the functioning of epistemic communities in an international context. This mirrors the international context in which (Dutch) policy is being drafted, and knowledge is produced and used. The ‘‘range of impact’’ that an epistemic community might have on a policy framework ‘‘remains conditioned and bounded by international and national structural realities’’ (in Haas, 1992, p.7). Therefore, the direct effects of an epistemic community’s efforts might variate.

Haas thereby poses that uncertainty is inherent to policy- and strategy design aimed at complex problems like climate change and migration (1992, p4). According to Davenport and Prusak, (1998) “Knowledge is the most sought-after remedy to uncertainty” (p.25). Consequently, expertise knowledge is required to aid policy formulation (Haas, 1992, p.4). This knowledge ‘‘consists of depictions of social or physical processes, their interrelation with other processes, and the likely consequences of actions” (ibid). Epistemic communities produce and utilise this kind of knowledge and information as a response to its demand.

Therefore, it is analysed in this paper whether a possible lacuna in international law and policy regarding climate change and migration is ‘accompanied’ by an epistemic community. In Chapter 3, expectations regarding this possible epistemic community focused on migration and climate change are formulated. In Chapter 7, acquired data and information will be analysed to see whether one can indeed speak of an epistemic community regarding climate change and migration.

2.3.4 Continuing Knowledge Utilisation: Political Uses of Expert Knowledge

Knowledge utilisation can be described as the way knowledge or research, originating in academic circles or research initiatives such as research institutions and think tanks (Stone, 2001, p.1), is used. The way knowledge is used, is interrelated with the entire policy process[17]. The way results of research, or knowledge, ends up in policy has been analysed by various scholars (Weiss, 1997; Hoppe, 2005; Boswell, 2009); looking at how the translation is made from academic circles to policy makers and others (Hoppe, 2009, p.246). Christina Boswell (2009) argued that there are three political uses of expert knowledge[18]. These are the "instrumental" use, and two 'symbolic' uses: "legitimisation" and "substantiation" (Boswell, 2009, p.4). These uses represent the outcome of the translation of research to policy[19]. In the coming paragraphs, these three kinds of uses will be set out. In this paper, it will be argued that next to the three uses of Boswell, there is the possibility of non-utilisation, whereby knowledge may have been produced and disseminated among possible actors, but has not been used in any concrete policy, decision or action[20].

2.3.4.1 Instrumental Use of Knowledge

The instrumental use ought to be understood quite literally: using knowledge as a tool to reach a certain objective. The instrumentalist theory poses the relationship between research and policy as most similar to the rationalist ideal-type of this relationship, where research informs and 'enlightens' the political electorate and policy makers (Boswell, 2009, p.29). One can detect the instrumental use, or "knowledge-driven model", when organisations use expert knowledge to alter their own functioning and output (Boswell, 2009, p.31; Weiss, 1979, p.427; Larsen, 1980, p.425). A direct kind of effect of research and knowledge on an organisation's decision-making, implementation and practice resembles the instrumental use. The connections between producers and users, according to this theory, would uphold an one-dimensional interaction: research and expert knowledge informing policy- or decision-making. The instrumentalist theory on use of expert knowledge is based on the assumption that "scientific results guide policy" (Boswell, 2009, p.31-32). This can be defied, when accepting factors of

[17] Or, if you will, all stages of the policy cycle; policy decisions or implementation as well as agenda setting, policy formulation, implementation and feedback loops.
[18] Her theory is based on organisational theory, thereby focusing on behaviour of administrations within political systems. She thereby attributes aspects of that theory to her analysis of administration's knowledge utilisation behaviour.
[19] They are considered to be a continuation of Weiss's theory, who wrote about models of knowledge utilisation (1997).
[20] Inspired by Rich and Oh (2000).

variability and change, instead of sticking to linearity and limited roles of actors involved[21]. Acquirement of information does not necessarily automatically lead to its utilisation for policy[22].

2.3.4.2 Symbolic Uses of Knowledge

Furthermore, Boswell draws on the theory of Brunsson (2002), which states that more political organisations are more likely to depend on symbolic responses including 'talk', versus technical organisations, which' legitimacy is based on output. This means that for political organisations discourse and political (policy) decisions are more important than implementing practices that have an actual effect (Brunsson, 2002, p.44). Likewise, Boswell reasons that politics and government agencies resort to talk and symbolic decision making, rather than action (2009, p.44). This reflects an actual "inability to effect change, rather than a lack of political incentive" (ibid, p.52). This might therefore explain the existence of dialogue groups, working groups and agreements, which in practice do not seem to have much effect, but do show stakeholders' willingness to get to action. Kenney (2000; in Lubell, 2004) argued, regarding environmental policy that this modus operandi may lead to "favourable changes in attitudes and social relationships, without the subsequent behavioural changes in levels of cooperation that are necessary to improve environmental outcomes" (p.550). It is therefore important to find out if there is a similar tendency regarding policies that are concerned with environment and migration.

When knowledge is used in "a way of signaling the authority validity or legitimacy of certain organisational decisions, structures or practices" (Boswell, 2009, p.61), this constitutes symbolic knowledge utilisation. Symbolic uses do not de facto change the decision-making processes or outcomes (of an organisation); they merely constitute signals that are supposed to affect an organisation's image and status in society. Quoting Geuss (2001) and Herbst (2003), Boswell (2009) mentions "epistemic authority" (p.7), which is a form of power that organisations can acquire when showcasing their relations with experts concerning a certain policy topic. Hence, expert knowledge is a form of prestige: a claim to authority and legitimacy in that field. Therefore, a claim to this epistemic authority is made, for example, when organisations actually do not change their behaviour according to gathered information but do want to maintain their image.

[21] The simple transfer of information from one actor to another poses a knowledge process similar to the transfer of binary code; static and without external influences. In that case, knowledge input would directly translate into output. However, as Rich and Oh noted as well: acquiring information and using knowledge are different from each other (2000, p.177).

[22] Oh and Rich elaborate on the knowledge process in more detail, describing the various stages of information processing (1996). Rich argues that there are four ways of using knowledge: "use", "utility", "influence" and "impact", next to its acquirement, dissemination and non-use.

The legitimising function includes the situation where expert knowledge is used to show one's capabilities in "an unstable organisational field" (Boswell, 2009, p.61). This includes complex, uncertain situations and policy fields. It is than used to provide legitimacy for an organisation's presence. This indicates that mere (showcasing of-) access to knowledge is sufficient, if this creates external and internal legitimacy of an organisation (ibid, p.81). In addition, legitimacy is especially important in policy domains in which there is a perceived gap in knowledge (ibid, p.81).

The substantiating function is when organisations want to (re-)enforce their decisions or actions in a particular policy field. This can occur when decisions/actions have been made which are not fully accountable or grounded, as well as when they are actually justified. This is related to the "political contestation" in a particular policy field (Boswell, 2000, p.87). It is exactly in these contested policy fields that expert knowledge is deemed necessary to make adequate decisions (Boswell, 2000, p.87). Knowledge, in this situation, therefore has a complementary function.

Both these symbolic uses are there aimed at increasing the legitimacy and validity of policy decisions, actions or organisations, rather than changing the actual output (Boswell, 2000, p.7). Consequently, Boswell provides factors that indicate the presence of a certain form of knowledge utilisation, see Table 1 (2009, p.86).

Uses of Knowledge			
	Instrumental Use	*Symbolic Use*	
	Instrumental Knowledge	**Legitimising Knowledge**	**Substantiating Knowledge**
Institutional Arrangements	intensive exchange between decision-makers and research unit	looser ties between decision-makers and research unit	some exchange between decision-makers and research unit
Research Agenda	Close coupling of research with performance targets	looser fit between substance of research and performance targets	close coupling of research with issues of contention
Dissemination	no obvious interest in publicising knowledge utilisation	clear interest in publicising knowledge utilisation	interest in publicising utilisation where it underpins claims

Table 1: Indicators of the functions of knowledge Source: Boswell (2009, p.86).

2.3.4.3 Non-Utilisation of Expert Knowledge

Another form of utilisation not discussed by Boswell (2009) is "non-utilisation" (Rich & Oh, 2000, p.177). This would be best described as the either conscious- or unconscious decision to not use particular information and knowledge. This may be explained by various factors; the non-use of particular information can be political and strategic. In political contexts and research, non-action is most definitely a frequent response. Non-utilisation produces signals as well, just like the symbolic uses. According to Rose (1991), "many new ideas are ignored for years" (p.12), due to a lack of demand for change.

2.3.5 Knowledge and Policy Topics: Where and When?

When analysing (the development of-) a policy topic, it is important to note the recent developments regarding the concepts of transnationalism and localism. Recent studies show that on top of international connectivity, actors predominantly regard the local context as the most effective and meaningful focus area of policy making. This is called localism. Though earlier discussed transnationalism and localism seemingly oppose each other, it is argued here that they both influence knowledge actors. Therefore, policy making regarding climate change and migration in the Netherlands is a process which is ideologically and politically interactive with other institutions such as the European Union and the United Nations, in addition to its national framework and duties.

To continue, knowledge production and knowledge utilisation take place internationally, at multiple levels and including various actors. Therefore "multilevel governance"[23] is considered a reality for the policy context of the nexus. International institutions give shape to areas of policy-making that are international yet may have a very direct, local effect[24]. Additionally, policy-making differs at various political institutions such as the European Union and the United Nations. All of these considerations result in a complex understanding of (international) public policy. Thus, one should rather be speaking of a 'policy topic' or 'policy field'.

[23] Multilevel governance is the understanding of policy making which sees boundaries between, for instance, Dutch national and European Union structures, as constructed. The idea is that these different levels of policy making are interactive and not separate spheres.

[24] This multilevel governance perspective has a structuralist tendency, as it accepts that communities, cities, regions and nation-states adhere to an hierarchical order, in which power and decision-making is distributed and executed in various ways. This hierarchy is constructed, yet it is assumed that it affects the evaluation of knowledge and therefore urgency of certain policy matters. For example, Small Island States consider that climate change is of great importance to their near future development, therefore assigning it a high level of urgency. For other members of the UN, this issue might not be as pressing. This may have the consequence of there not being as much attention to climate change as necessary.

Not many scholars have addressed knowledge production and -utilisation regarding (emergent) policy topics. Many scholars focus on the end product at the end of the 'supply chain': 'Did knowledge end up in policy documents?'. Yet, this assumes a rather linear, input-output relationship between research and policy. In this thesis, the process of policy formation is seen as a continuous, iterative process (Bekkers et al., 2018)[25]. At times, this process may result in an actual policy. However, new knowledge might alter its implementation or evaluation. Therefore, the policy process presents itself as a continuum, which fluctuates between a developing- and an established state[26]. The role of knowledge production and utilisation regarding this process may be analysed, as it is yet unclear why certain policy fields develop and others may not, and how knowledge constitutes this process.

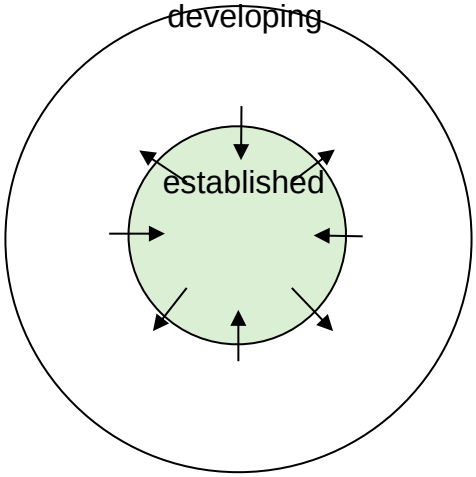

Fig. 5. Model of the policy process.

The current state of the policy topic including both migration and climate change is a product of the process in which knowledge production relates to knowledge utilisation. Richard Rose argued that "policy makers are driven by the need to dissipate dissatisfaction" (1991, p.10). If empirically shown to be right, this would therefore support the instrumental use of knowledge.

[25] The interaction between knowledge and policy interact may vary at various moments in time and action. This interaction can be therefore be dissected to involve various stages and/or processes. This can result in a conceptualisation resembling a vicious circle of policy formulation, evaluation and adaptation; the "policy cycle" (Jones, 1970; Anderson, 1975). Yet, the policy cycle is a way of conceptualising the policy process which has been criticised for its 'static' idea of policy.

[26] After establishment, which represents a physical output, the process returns to its developing state. When no 'established' moment in the process has occurred, this may mean that policy has been developed and maybe even formulated but was never implemented by governments.

3. Research Design

This chapter will entail the research question, conceptualisation and operationalisation of the concepts described in the theoretical framework applied to this case, and the resultative expectations. The main research question of this thesis is *what is the relation between knowledge and policy making regarding climate change and migration in the Netherlands and how can this be explained?'*. From this main research question, multiple sub research questions can be derived:

1. What are the current policy developments on climate change and migration?
2. How is knowledge on climate change and migration produced?
3. Can we speak of an epistemic community concerning climate change and migration?
4. How is knowledge on climate change and migration utilised?
5. Which political uses of expert knowledge can be identified?

3.1 Conceptual Model

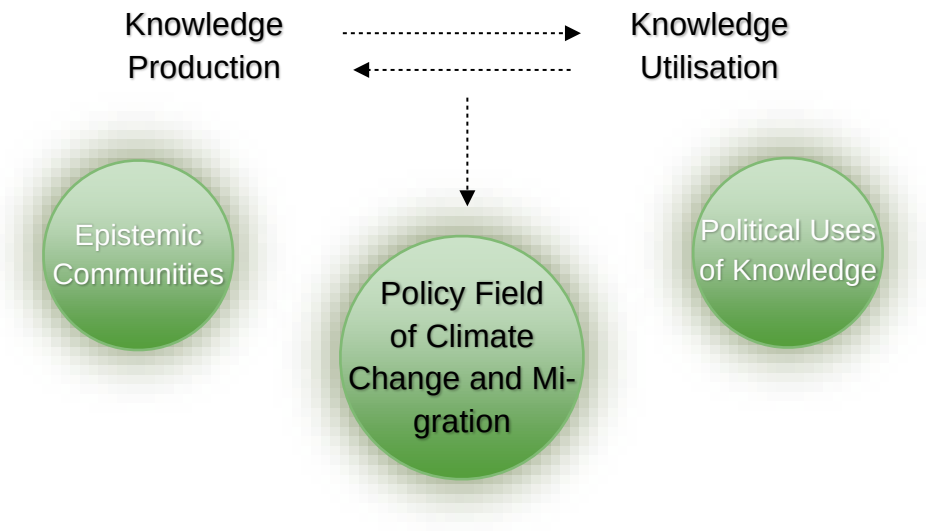

Fig. 6. Conceptual Model.

As visualised in this conceptual model, the dependent variable in this research is the development of the policy topic of the nexus: climate change and migration, which is dependent on the (interactive) processes of knowledge production and knowledge utilisation regarding this topic.

3.2 Operationalisation and Expectations

3.2.1. Knowledge Production Expectations

Theory	Concept	Definition	Elements
Knowledge Production	Epistemic Community	Community of professionals, including researchers and policy makers, working on climate change and migration	(1) Share normative and principles beliefs about the nexus of climate change and migration, providing a "value-based rationale for social action of community members".
			(2) Shared causal beliefs regarding climate change and migration
			(3) Shared notions of validity of knowledge regarding climate change and migration
			(4) Common policy enterprise

Table 2. Knowledge Production

Knowledge production is understood as contributing to existing knowledge on climate change and migration by research institutes, non-governmental organisations, academic institutions present in the country, and other actors providing information and data. This therefore includes the production of knowledge on climate change and migration both internationally as well as locally in the Netherlands.

An epistemic community would, in this case, have a community of professionals focused on climate change and migration. Adapting the elements selected that ought to indicate the presence of an epistemic community, this results in the following expectations. Firstly, its members ought to all (1) share the belief that the nexus of climate change and migration is an issue concerning the world that ought to be tackled, therefore providing a "rationale for social action". Also, they ought to be (2) sharing "causal beliefs", seeing that degradation of the environment, including climate change, human-induced changes in the environment and both gradual and instant environmental hazards, are somehow interrelated with migratory movement. Moreover, they would (3) share "notions of validity" concerning the knowledge produced

on climate change and migration, and fourthly, (4) share a "common policy enterprise", namely policy action regarding climate change and migration, out of "conviction that human welfare will be enhanced as a consequence". The expectation is that uncertainty regarding climate change and migration of policy-making bodies results in a demand for knowledge, which this epistemic community produces.

3.2.2. Knowledge Utilisation Expectations

Theory	Concept	Definition	Elements
Knowledge Utilisation	Instrumental Use	Using knowledge on climate change and migration as a tool to create or guide policy	Direct adaptation of research results
			Direct integration of decisions in international agreements
			In case of a sense of urgency; intensified contact with academia
	Symbolic Use	The use of knowledge on climate change and migration to acquire authority and legitimacy	Existence dialogue and working groups
			No tangible policy action regarding climate change and migration
	Legitimisation	Knowledge use to increase legitimacy of the position of the actor	Claims to epistemic authority
			Interest in publicising relations with academia

	Substantiation	Defensive use of knowledge (relation) when policy action is challenged; justification and validation	Political contestation regarding climate change and migration
Non-Utilisation		The absence of use of knowledge regarding climate change and migration	(Un-)Conscious decision to ignore knowledge claims

Table 3. Knowledge Utilisation

Knowledge utilisation is understood as how knowledge on climate migration is used, including the political uses of knowledge as defined by Boswell (2009); the instrumental use, symbolic uses and non-utilisation. Therefore, this includes the use of knowledge and research results regarding climate change and migration. Seeing that some scholars see a connection between climate change and migration and other scholars do not think this relation is significant, this is assumed to have effect on the individual perceptions of policy makers and policy developments regarding climate change and migration in general. Therefore, a differentiation in expectations is made based on this aspect. It has to be noted that the findings of the various types of knowledge utilisation will be impartially assessed.

In the case that climate change is seen as affecting migration, the instrumental use of knowledge on the nexus would result in pieces of knowledge on this topic directly influencing the functioning of policy- and decision makers. Therefore, if the instrumental use were to be true, there are multiple scenarios possible. The following phenomena ought to be detected during empirical research:

1) Notions of the urgency of policy action issued by scholars in papers written about climate change and migration would lead to 'enlighten' policy makers directly and result in a policy action. This could be manifested, for example, in the erection of a policy position or department focused on migration and climate change issues.
2) In the case that policy makers do experience a certain level of urgency regarding climate change and migration, they might invite scholars to help them with their decision making, by means of informing, interactive sessions or working groups.
3) International dialogues between nation-states on either of these matters would have a direct influence on government organisation's structure and goals.
4) Certain facts about climate change and migration would be directly incorporated in the production of new policies.

5) The relationship between researchers and policy makers would be a one-way street, whereby research and expert knowledge concerning climate change and migration informs policy- or decision-making actors, and scientific results concerning this policy topic guide the policy process.

Knowledge claims regarding the nexus, that policymakers would have to use in their daily routines, will be outlined in Chapter 5. Another expectation made on the basis of Boswell's theory (2009), would be that because the Dutch government is a political organisation, it is more likely to depend on symbolic responses, including more discourse than tangible outcomes: relatively more symbolic decision making, than taking a proactive stance. This might happen when policy makers have the idea that they cannot influence the development of policy regarding this topic profoundly.

1) Thus, if there is a sense of migration and climate change being 'out of control', more symbolic decisions may be made.
2) This would, according to theory, result in the existence of dialogue or working groups, which incorporate long discursive processes.
3) It would produce (international) agreements, which in practice do not give any actor leveraging power, have a direct effect nor are binding.
4) This, however, does not mean that policy makers might not express a certain willingness to tackle this policy topic.
5) Regarding the legitimisation use, it is expected that policy makers will show that they have relations with scholars and think tanks regarding climate change and migration.

These relations are portrayed when possible, as to add to policy makers and decision-making bodies legitimacy; they show that their decisions and actions are backed up by research and thus attempt to simultaneously reinstitute their authority; the access to these sources has to do with certain (political) power. However, when these showcased relations do not actually lead to any concrete action, one may argue that they are actually claims to epistemic authority.

Regarding the substantive use, it is expected that if it does occur, this is visible when expert knowledge on climate change and migration is defensive, for example when it is defending a new or already implemented policy or policy action. One can realistically expect this to happen regarding this policy topic - as both migration and climate change are politically contested, and relevant knowledge is often disputed. Knowledge will, in the case of substantive use, not be the direct cause of alterations in the policy process. Rather, it is expected that knowledge is used to justify and validate coming or previously made policy developments or decisions. In this way, knowledge would be used as "ammunition" (Scholten).

Last but not least, there is the non-utilisation of expert knowledge regarding climate change and migration. Expectations in the realm of this use are:

1) Despite of being aware of certain agreements, knowledge, information and other sources, this knowledge does not reoccur in the policy process, in any stage.
2) It might be the case that some knowledge is willfully ignored, or that this happens because scholars and experts focused on this policy topic are not in touch with policy- or decision makers.

3.2.3 Expectations Continued

Policy making is a process, which is influenced or even constrained by time, place, actor and political environment, in addition to provided knowledge input. Boswell addressed "characteristics of the organisation; features of its environment; and the nature of the policy area concerned" (2009, p.13)[27]. Considering these situational factors, it can be expected that knowledge is utilised differently when those factors fluctuate. Consequently, it can be argued that when the context changes, the use of knowledge changes accordingly. When policymakers are under great time pressure to come up with a policy solution, it can be expected that this is a constraint on their ability to formulate the best possible policy. Likewise, it can be argued that when policymakers work in a particular organisational setting, like the national government, this will influence the policy process because of bureaucratic or political restraints. Therefore, taking Boswell's political uses of knowledge, there are expectations which can be derived from this theoretical framework, when looking at policy making regarding climate change and migration in the Netherlands. Furthermore, the case will be analysed to see whether there is (an indication of-) an epistemic community of climate change and migration and thereupon it will be seen how its knowledge production and utilisation is related to outcomes in national and international policy.

3.3 Methodology

This thesis will be qualitative, inductive of nature and focused on processes. The case study methodology[28] and process-tracing method will be used, corresponding with this approach.

[27] Oh and Rich's model adds decision makers' motivation and attitude, as well as characteristics of information to this account of these environmental factors, see Oh and Rich (1996, p.9).
[28] "The importance of the single case lies in what it tells us about society as a whole rather than about the population of similar cases" (Burawoy et al., 1991, in Small, 2009)

The method that will be used is "process-tracing", because "*both* agents and structures matter" (Checkel, 2008, p.114). Process tracing means to "trace the operation of causal mechanism(s) at work in a given situation" (Checkel, 2008, p.114). This means that in this case study, the causal mechanism(s) at work will be analysed concerning knowledge and policy on climate change and migration. This is in line with my limited positivist approach, as was discussed before in paragraph 2.2, and fits the qualitative nature of the research. When one uses process-tracing as a method, it is important to gather information from a multiplicity of sources. This also assures appropriate triangulation, to accredit the information gathered and document the case study from various angles or perspectives, to create a more wholesome account (Carter, et al., 2014, p.545). This research will include "data source triangulation" in particular: in-depth interviews with individuals will be conducted, which will provide for "rich information about personal experiences and perspectives" (Carter, et al., 2014, p.545). Checkels named four important core elements of "good process-tracing": philosophy, context, a justified set of proxies and "equifinality" (2008, p.216). This has led to the following action plan:

1) Securing that the research is epistemologically and philosophically sound
2) Analysing the context in which the main research question is asked
3) Establishing a methodology that clarifies what needs to be found to test the expectations
4) Collecting evidence: empirical research and desk research
5) Assessment or analysis of research

Fig.7. Process Tracing

3.3.1 Step One: Timeline

In process tracing, the first step is to identify certain points in time, that were important for the process. These have to be proved with evidence such as interviews, "pattern evidence" including statistics and "sequence evidence", which requires a timeline with relevant events (CDI, 2015, p.5). As such, the fourth chapter will be devoted to providing for this context and timeline. This policy context will be set out by means of desk research, to get a proper insight

into the development of the policy topic of climate change and migration. This will include a document analysis of policies, regulations, legislation, conferences, declarations, working papers, research documents and other relevant information stemming from media outlets, like websites that are concerned with climate change and migration of the past 5 years. It was chosen to illustrate the past 5 years, because migration policy has gained interest and importance since 2015 in Europe and the Netherlands. This will be done by consulting Google search, both using the terms: climate migration, climate change and migration, environmental migration and policy, for maximum coverage. However, the most recent documents and agreements by international bodies and the Dutch government will be scanned for the words: ‘‘migration’’, ‘‘migrant’’, ‘‘mobility’’ and ‘‘refugee’’. Also, documents from these two separate policy topics will be examined for cross-references.

It will be attempted to give an as complete as possible picture of the developments that have taken place both academically and policy-wise on this topic. Thus, it will be shown at which points in time and through which actors' momentum was created, continued or halted, regarding this policy topic.

3.3.2 Step Two: Map of Social Network

The second step is to map out the professionals and organisations that are involved in producing knowledge (Chapter 5) on the policy topic of climate change and migration. This will give insight into what kind of actors are involved and to what extent. Also, this will reveal the political- or power relations between these actors. The way the boundaries of the networks of actors involved with climate change and migration will be determined, will be based on participation: namely actively working on climate change and migration[29]. This will be done in two steps; first, (policy) documents and academic articles will be read, which will mention particular actors. These will form the basis of the further inclusion of actors in what will be considered the epistemic community.

According to “snowball sampling”, the interviewees will be selected (Tansey, 2007). This is a non-probability kind of sampling, including a small sample, which is adequate to this case study; when a research is ‘‘focused on particular policy issues or when access to the desired population of relevant actors is limited’’ (Bleich & Pekkanen, 2013, in Thomas & Benjamin, 2017). This will not lead to an objective and exhaustive picture, but “there is no such thing as a complete and unbiased picture of a social network anyway” (Morçöl, 2012, p.218).

[29] Although according to Freeman (2017), this approach to identifying a social network is solely focused on researchers and does not completely adhere to the requirement of identifying an epistemic community, this nominalist kind of analysis is able to identify ‘‘‘invisible colleges’ of scientists, in which network members are identified on the basis of their interest in a particular field of research, irrespective of their disciplinary label”.

As the meta-topic of this thesis is the production and use of knowledge regarding policy, the first few interviews will be with researchers, who have produced articles and books on climate change and migration. They will, in turn, be asked to refer to others they consider important regarding for these two topics, collaborations and whether they know if their own work ending up in policy or other research.

3.3.3 Step Three: Interviews

The last step are the interviews that will take place with these actors. These interviews will aim at getting to know as much as possible about the knowledge production and knowledge utilisation processes the actors conduct and which context they are in. The interviews will then be analysed for recurring patterns. Another objective of the interviews is to check the knowledge claims as identified. Furthermore, the interviews will be semi-structured. The interviews will be conducted with all important actors involved in the development of this policy field. Thus, when mapping out knowledge utilisation in Chapter 6, this will include both policy-makers and academics, at the three levels of policy making deemed relevant: Dutch national government, the European Union and the United Nations agencies that are concerned with this topic.

3.4 Academic Relevance

Currently there is not a lot of empirical evidence of knowledge utilisation in the field of public administration. The main research findings in this area are conceptual. Some progress has been made regarding this issue by providing country analyses of "research-policy dialogue structures" (Scholten). However, in other research fields like education and healthcare, more research has been done on knowledge utilisation, as these fields are (largely) dependent on research and innovation in order to thrive. An assumption here is that there is less incentive in public administration to do empirical studies on government knowledge processes. Governments' existence does not depend solely on their ability to generate profit like in the commercial sector, where innovation can be essential. This study sheds light on the knowledge process in relation to public policy, with a specific focus on climate and migration. As research in this policy field is yet being developed, it is interesting to see what knowledge has been used so far, and if so, how.

3.5 Societal Relevance

Seeing the vast effect policy has on people's everyday lives, it is important to see how knowledge is used. If knowledge does influence policy, it is useful to know how. If knowledge is not used within a short time of it being produced, one can expect that this will bring about unwanted consequences. When policy makers design policies they may be operating ‘‘on the basis of theories of yesteryear’’ (Röling, 1992, p.43). In common perception, bureaucracy tends to slow down policy processes similar to legislation. Therefore, it is important to understand what is true. Moreover, it is important for governments and organisations to know about their knowledge utilisation process. Also, specifically, to see how governing bodies and policy-making organisations ought to deal with climate change and migration, and how they are dealing with it currently, if at all. Additionally, the questions asked in this thesis are addressing the societal relevance of research. One can look critically at the use of knowledge in society in general. Knowledge, in a lot of instances, furthers technological and social developments in various dimensions of society (Wilbertz, 2013, p.2). Wilbertz (2013) tried to explore how societal relevance can be measured and improved. His point of departure is that research is an “investment” (Wilbertz, 2013, p.3).

3.6 Ethical Considerations

Regarding this research, there is the danger of methodological nationalism, hopefully avoided by its multi-level perspective. Moreover, process tracing relies on ‘‘proxies’’ (Checkel, 2008, p.122). In this case, this is true for not being a policy maker in the field of migration or climate change, the information gathered can only try to grasp people's perceptions and aim at getting the most complete story possible. It is like dressing like a sheep and walking into the field, yet the ones you converse with know that you do not really belong to their herd. Another limitation, also related to the method of process tracing, is the depth of which this research was able to go (Checkels, 2008, p.122). If one really wants to get to the bone of how individuals engage with information and knowledge, this becomes a cognitive exercise, whereby one could try to identify how people utilised knowledge by going into specifics with theories like Rich's (1997). However, during this study, this would have taken away focus by centralising the policy makers' cognitive choices. Furthermore, it has to be considered that policy developments at the ‘global’ and other international levels, are a constructed product as well. As Shiva worded most adequately: ‘‘The global does not represent the universal human interest but it represents particular local and parochial interest which has been globalised through the scope of its reach’’ (in Fischer et al., 2015, p.353).

4. Policy Context

The crossovers between the two policy fields of climate change and migration together form a special nexus. The relationship between the two remains debated in literature and is only in some (policy) circles addressed as a policy field *an sich*. It is exactly this nexus, because of its current state of development, that can show us the workings of the relationship between research and policy at various levels; it might translate into attention- or even agenda setting for certain issues, as well as the absence thereof. In essence, the question rises to what extent the policy and research realms move in alignment (without making this a normative question). If policymakers turn out to not occupy themselves with the issue currently, is this a matter that ought to be addressed?

It is therefore important to analyse what has happened so far regarding climate change and migration in (international) public administration to be able to integrate the findings of this research in their context. This chapter will include the desk research as mentioned in Chapter 3, focused on providing an image of the current state of policy developments regarding climate change and migration. It will be set out what has happened in the internationally and on some regional and national levels regarding climate change and migration, as well as what has happened in the Netherlands, focusing on the most recent developments.

4.1 The Nexus on the Agenda

In some parts of the world, the nexus of climate change and migration has been on the agenda since the 1950s, especially in Asia and the Pacific. Already back in the 1940s, people from the Republic of Kiribati moved to the Rabi Island of Fiji due to phosphate mining[30], which made the island inhabitable (Loughry & McAdam, 2008, p.52; Dupon, 1989). The Fiji, Kiribati and Tuvalu are all part of the Alliance of Small Island States (AOSIS[31]). These Small Islands States

[30] This kind of human-induced, dramatic altering of local environment that directly influences local inhabitants' ability to continue their ways of life that are interconnected with this environment, is in this thesis considered part of climate migration.

[31] AOSIS is the earlier mentioned Alliance Of Small Island States, which is a global network of 39 member states and 5 observers (Climate Policy Observer, "Alliance of Small Island States"). They have organised themselves in order to form an unified voice to advocate against climate change and promote climate change adaptational policy internationally. Its members are all countries that are vulnerable to the effects of rising water levels, land erosion and numbers of intensified meteorological disasters. These mostly include islands, but also countries that are susceptible to those effects because they have lowland coastal areas, like Surinam. Together they represent 20% of UN members, 5% of the world population and are responsible for only 1% of the GHG emissions (Climate Policy Observer, "Alliance of Small Island States"). Yet their liability would amount to over $570 trillion (Heidari & Pearce, 2016).

in the Pacific Ocean are among the list of countries that are most susceptible to climate change effects, including, but certainly not limited to land degradation, rising sea levels and cyclones (Bettencourt, et al., 2006, p.viii). Reactively, a lot of research initiatives and questions for an international response come from that area[32]. The policies of Small Island Developing States (SIDS)[33] regarding climate-induced migration and displacement were analysed by Thomas and Benjamin (2017). The SIDS have also lobbied for the adoption of the term "climate refugee" (Thomas & Benjamin, p.90), however, without desired results. Thomas and Benjamin recognise that displacement and migration due to climate change is, indeed, already happening in these areas (Thomas & Benjamin, 2017, p.88, 96). Planned migration is considered a viable adaptation strategy for these cases, although this could be met with resistance by concerned communities (ibid, p.88).

From Thomas and Benjamin's analysis, it furthermore turns out that as of 2017, from the SIDS only a couple have indicated that relocation as a long-term adaptation strategy in their Intended Nationally Determined Contributions[34] (2017, p.93). Actually, when analysing the data as provided by the NDC Registry (UNFCCC), I found that currently 11 countries have relocation as adaptation strategy, 12 countries stated migration as consequence of climate impacts and 3 countries had references to both migration and relocation: see Table 4 and an illustration of Table 4 in Figure 8. One country, Ecuador, indicated that there is a risk of displacement/migration as a consequence of climate change. Yet, this effectively means that only 27 countries out of 169 who have submitted their NDC have mentioned migration or relocation. The European Union has not mentioned migration or relocation in its NDC. Therefore, policy formulation regarding climate change and migration is a process not many countries have started, even though the urgency level in some areas is pretty high already.

[32] An example of this is the Pacific Climate Change and Migration (PCCM) Project, financed by the European Union and executed by the United Nations Economic and Social Commission for Asia and the Pacific, the International Labour Organisation, and the United Nations Development Programme (UNU-EHS, "On the frontlines of climate change: Migration in the Pacific Islands").

[33] The SIDS form a slightly larger group than the AOSIS, but mainly has the same members.

[34] Nationally Determined Contributions are the commitments submitted by nation-states as agreed upon in the Paris Agreement ("The Paris Agreement", UNFCCC) (hereafter: NDCs). The NDCs are commitments of individual countries to combat climate change and an indication how they plan to keep global warming to 1.5 (maximum 2) degrees Celsius (UNFCCC, "Nationally Determined Contributions").

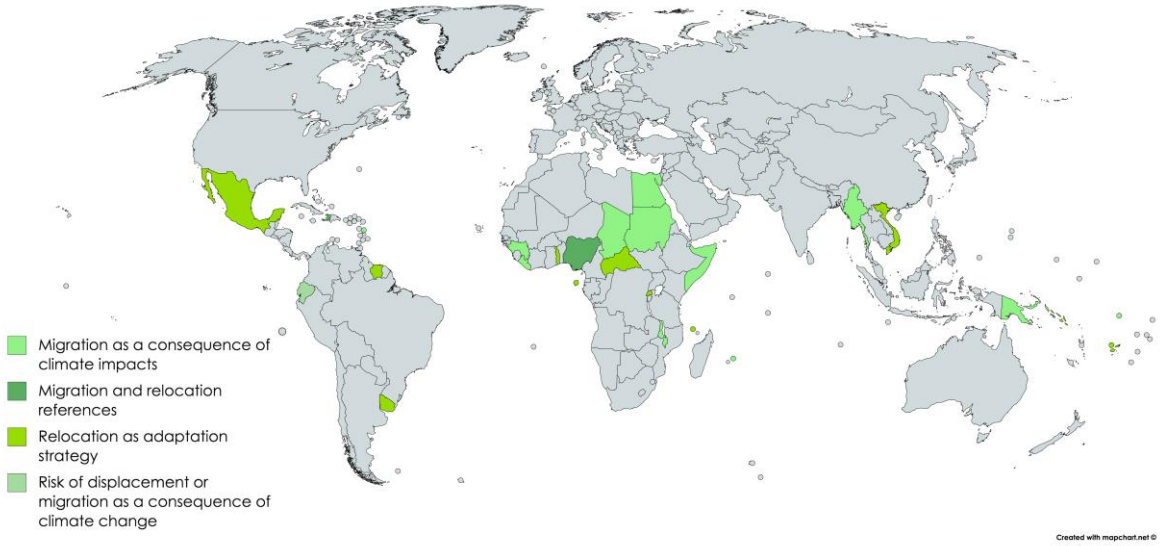

Fig. 8. World map of NDCs with migration or relocation indicated

Countries with Migration or Relocation in their NDC

Chad	Migration as consequence of climate impacts (migratory movements e.g by pastoralists)
Papua New Guinea	Migration as consequence of climate impacts
Somalia	Migration as consequence of climate impacts
Mauritius	Migration as consequence of climate impacts (climate change and climate variability: could cause migration)
Malawi	Migration as consequence of climate impacts (floods: displaced 230.000 people in 2015)
Dominica	Migration as consequence of climate impacts (natural disasters and climate extremes; farmers change livelihood and migrate away)
Myanmar	Migration as consequence of climate impacts (rain patterns variations: causing migration)
Guinea	Migration as consequence of climate impacts (rainfall shortage could make Guinea a refuge for non-Guinean patoralists)
Liberia	Migration as consequence of climate impacts (sea erosion: can cause displacement)
Egypt	Migration as consequence of climate impacts (sea level rise: resulting in migration)
Tuvalu	Migration as consequence of climate impacts (sea level rise: unavoidable migration)
Sudan	Migration as consequence of climate impacts (variable rains: human displacement)
Haiti	References to both migration and relocation (integrate domestic and international migration in adaptation strategies)
Kiribati	References to both migration and relocation (sea level rise: forced migration. Establishing host country agreements for emigration)
Nigeria	References to both migration and relocation (strengthen capacity to anticipate internal migration; strengthen rural settlements to reduce migration)
Togo	Relocation as adaptation strategy ('massive rural exodus' caused by climate change)
Uruguay	Relocation as adaptation strategy (away from flood-prone and/or contaminated areas)
Suriname	Relocation as adaptation strategy (considers to relocate economic activities away from thrreat of sea level rise)
Comoros	Relocation as adaptation strategy (move population out of areas vulnerable to climate related hazards and floods in particular)
Sao Tome and Principe	Relocation as adaptation strategy (reduce number of people living in vulnerable areas by providing housing in safer areas)
Vietnam	Relocation as adaptation strategy (relocate from areas affected frequently or at risk of e.g. (flash) floods)
Mexico	Relocation as adaptation strategy (relocate irregular human settlements in disaster-prone zones through land use regulations)
Solomon Islands	Relocation as adaptation strategy (relocate provincial headquarters and town from Taro Island to the mainland)
Rwanda	Relocation as adaptation strategy (relocation away from high risk zones will continue)
Fiji	Relocation as adaptation strategy (relocation of communities to higher grounds)
Central African Republic	Relocation as adaptation strategy (transhumance corridors)
Ecuador	Risk of displacement/migration as a consequence of climate change

Table 4. Countries with migration or relocation in their NDC

Apart from these Small Island States, other world regions and countries also see high urgency levels of dealing with the effects of climate change. The most well-known examples include cases of rising sea levels like the Maldives, Bangladesh[35], South Africa[36] and Puerto Rico (Eckstein, et al., 2018, p.8)[37].

In the Netherlands a newspaper published an article with the announcement that the first 'climate refugees' had been recognised in New Zealand about five years ago (Lindhout, 2014, 14 August). This, however, turned out to be false. First, a family from Kiribati appealed their negation of refugee status "on the basis of changes to his environment in Kiribati caused by sea-level-rise associated with climate change", however, their appeal was declined by the High- and Supreme Court (Buchanan, 2015). After this, another family from Tuvalu did get their residence permit in appeal, yet, this was because of "exceptional circumstances of humanitarian nature" (AD vs B. L. Burson). These special humanitarian grounds did include the argument that when the appellants would be send back, they would "be at risk of suffering the adverse impacts of climate change" (Randall, 2014, Aug. 8). Yet, this kind of alarmist media attention is common regarding the nexus, which may have created wider recognition for it, leaving aside whether this was positive or negative attention.

The earlier mentioned AOSIS are also known for their ''1.5 to Stay Alive'' campaign during the COP24[38] at Katowice, trying to increase awareness for their situation and the necessity of action by all nation-states to reduce emissions and combat global warming. The Fiji, also a member of the AOSIS, have initiated the ''Talanoa Dialogue'' as facilitative dialogue for the UNFCCC, which' aim was to collect ''analytical and policy relevant inputs'' from its members, expert institutions and other stakeholders (Overview of inputs to the Talanoa Dialogue). This thus presents an example of co-governance, where not only Parties to the Convention were invited to deliver input, but also members of civil society, private sector and academia and research. This was a spark in the conversation about the nexus. An example of this, is the input of the Office of the United Nations High Commissioner for Human Rights, recognising that ''negative impacts of climate change… can also drive human mobility'' (OHCHR, 2018).

[35] Bangladesh is commonly known to experience flooding frequently, due to the rise in temperatures globally, which increases the melting of ice caps in mountainous areas, adding to the water volume present in mountain rivers and streams.
[36] A recent shortage of water in South Africa resulted in people lacking sufficient amounts of water. The cause of this is attributed to climate change.
[37] According to the "Climate Vulnerability Index" compiled by the Center for Global Development, China is the number one country experiencing most risk to the probability of impact from an extreme weather event, followed by India, Bangladesh and Pakistan.
[38] The "COP" are Conference of the Parties, held annually by the members of the United Nations Framework Convention on Climate Change. This international agreement included a commitment to "reduce the release of greenhouse gases and address climate change" ("Facts", The Caribbean Climate Justice Hub, 2019).

Despite of this, the UNFCCC and the Talanoa Dialogue did predominantly focus on climate change, which is logical because of their missions.

Apart from these developments that are mainly taking place on the other side of the world, where the effects of climate change are perhaps felt more intensely and experienced more directly, the nexus has been gaining more attention in the UN and Europe in the past ten years. According to Nash (2018), the period between the 2010 Cancun Conference and the Paris Agreement in 2015 has especially been a "distinct era of policy making on the climate change and migration nexus, where its position on global policy agendas was assured" (p.53). Nash argues that the lack of policy regarding the nexus is probably due to its conceptual and thereby discursive instability (2018, p.54). This perception is, like mentioned in the introduction of this chapter, shared in this thesis. In all, there seems to be a greater awareness that migration can be a response or adaptation strategy to climate change (Heinrich Böll Stiftung & IOM, 2016) as well as that climate change might be a factor in the decision of people to migrate. Thus, some noticeable developments have been made in setting the nexus on the agenda.

4.2 Intergovernmental Policy Developments

Next to these efforts, there has been an upsurge of intergovernmental and regional bodies, which are concerned with (one part of-) the nexus. Some initiatives are predominantly political endeavours, while others also initiate research. These endeavours include a variety of actors, sometimes involving multiple international organisations, sometimes incorporating working groups or the execution of a singular research project. Hereafter, developments regarding climate change, migration and the nexus are addressed and thereafter placed in a visualisation (See Fig. 9. Timeline), in order to provide an image of the policy landscape of the nexus.

4.2.1 Climate Change as Primary Concern

A lot of tangible efforts have been made in the area where climate change is actors' primary concern. Thirty years ago, climate change was already an internationally known issue. This awareness was translated into the creation of the United Nations Framework Convention for Climate Change, drafted in 1992 during the UN Conference on Environment and Development (UNCED), also called the "Rio Earth Summit"[39] (Linner & Selin, p,972), and ratified by countries in 1994, whereby it was adopted (UNFCCC, "Process and meetings"). Its objective is the

[39] The Rio Earth Summit was a follow up of the 1972 Declaration of United Nations Conference on the Human Environment in Stockholm, where it was agreed that preservation and enhancement of the human environment is necessary.

“stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent anthropogenic interference with the climate system” (UN, 1992, p.9). After this, the attention for international climate policy increased (Handl, 2012). The UNFCCC effectively holds the Conference of Parties (hereafter: COP) every year, which is its “supreme decision-making body” involving participant governments (UNFCCC, “COP”), ought to continue progress made on the goals of the Convention. The first COP was held in Kyoto, 1997, which resulted in the Kyoto Protocol.

The two foremost important implications of the Kyoto Protocol were the target-setting mentality regarding the global greenhouse gases (GHG), especially directed at most industrialised countries and the “architecture for the future international agreement on climate change” (UNFCCC, “What is the Kyoto Protocol?”). However, as Helm (2008) noted already a decade ago, not a lot of progress seems to have been made regarding actual reduction of greenhouse gas emissions and policy implementation, perhaps also due to the possibility of emission trading. As the Emissions Gap Report (UNEP, 2018) states: “Current commitments expressed in the NDCs are inadequate to bridge the emissions gap in 2030. […] Now more than ever, unprecedented and urgent action is required by all nations. The assessment of actions by the G20 countries indicates that this has yet to happen; in fact, global CO2 emissions increased in 2017 after three years of stagnation” (p.4). Climate change, or global warming, therefore presents a topic where you would want science to be used instrumentally for policy, in order to save our planet and ourselves, right now.

Next to this, a remarkable step that followed from discussions facilitated by the UNFCCC was the Cancun Agreement of 2010 (Nash, 2018). The second decision made, was to enhance action on adaptation and included the notorious Article 14(f) (Nash, 2018, 54). This article states all Parties of the UNFCCC are encouraged to “enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at the national, regional and international levels” (UNFCCC, 2010, p.5). This was the first time that climate change and migration was given “this high degree of legitimacy” as a topic (Warner, 2011, p.10).

A couple of years before the creation of the UNFCCC, the Intergovernmental Panel on Climate Change (IPCC) was established in 1988, in cooperation by the World Meteorological Organisation (WMO) and the United Nations Environmental Programme (UNEP), and endorsed during that year’s UN General Assembly (IPCC, ‘‘History’’). The resolutions adopted in that Committee show that back then, the need for cooperation and knowledge regarding climate change was already considered ‘‘a priority issue’’ and ‘‘scientific assessments of the … impact of climate change and realistic response strategies’’ were deemed necessary (UNGA, 1988). The IPCC body was created by the UN for ‘‘assessing the science related to climate change’’ (IPCC, ‘‘About’’). It is specified that it is there to ‘‘provide governments at all

levels with scientific information that they can use to develop climate policies'' (IPCC, ''About''). The IPCC does not initiate research themselves, but rather facilitates the collaborations between nationals from the Parties, which produce necessary data and reports (IPCC, ''structure''). In every country that is member of the IPCC, there is a ''National Focal Point'', a person responsible to oversee the respective national contributions and communication (IPCC, ''structure'').

In line with these past advancements, the NDCs were more recently established at the COP21 held in Paris, congruent with the Paris Agreement of 2016. The NDCs are submitted every 5 years by the Parties to the UNFCCC Agreement and are available online (UNFCCC, "NDC Registry"). As mentioned before, it is only 3 countries who included the word migration in their NDCs. The adaptation and mitigation measures that have been included in the NDCs have a direct effect on the velocity of the rise of global temperatures and thereby the livelihoods of people around the world. When the quality of peoples' livelihoods decreases, some desperately choose to migrate, partly due to reasons related to climate change or other phenomena concerning their environment, like human-induced changes in the environment (IOM, 2011, p.33-34). Therefore, the measures which nation-states commit themselves to in the NDCs affect the range of possible scenarios that may develop themselves in the coming decades regarding human mobility and migration, internally as well as internationally. During the Katowice conference, the COP24, there were several events addressing this topic[40] next to discussions between the Task Force on Displacement and the Platform for Disaster Displacement (IOM, "Human Mobility at COP24").

4.2.2 Migration as Primary Concern

One of the most politically important moves, internationally, regarding migration has been the Global Compact for Safe, Orderly and Regular Migration (2018) (hereafter: GCM), which was adopted in Marrakech. In its objectives, it advocates for the reduction of drivers of migration and continues, that in order to manifest this goal, signing countries will "invest in programmes that accelerate States' fulfilment of the Sustainable Development Goals […] including through […] climate change mitigation and adaptation" (UNGA, 2018, p.9). Therefore, immediately addressing the nexus.

Strikingly, the GCM than continues with a sub-section on "Natural disasters, the adverse effects of climate change, and environmental degradation" in which five articles are committed to the nexus. These include the ambitions to: (1) increase knowledge production

[40] Including variations of wording and the different specific aspects of human mobility, displacement, people on the move and climate induced migration ((IOM, "Human Mobility at COP24").

on migration as a result of climate change and other environmental developments, (2) to develop adequate adaptation strategies, (3) to integrate displacement in security strategies, (4) the synchronisation of different levels of governance and (5) to create orderly ways of dealing with the issues that may arise regarding climate and migration (ibid, p.10).

The GCM is the latest result from the political process that was fortified in New York in 2016 with the UN Summit for Refugees and Migrants, resulting in the New York Declaration for Refugees and Migrants (UN, "UN Summit for Refugees and Migrants 2016"). This Declaration recorded the commitments made by signing member states and resulted in the action points of developing "guidelines on the treatment of migrants in vulnerable situations" and achieving "more equitable sharing of the burden and responsibility for hosting and supporting the world's refugees" (UN, "New York Declaration"), next to advancing progress on the GCM of 2018. In its introduction and the very first paragraph, it already mentions that people move "in response to the adverse effects of climate change, natural disasters […], or other environmental factors" (UN, 2016, p.1). It has included multiple other references to the nexus, also referring to environmental degradation as a factor of international migration and environmental factors as driver of migration (IOM, "Environmental Migration in the New York Declaration").

Hence, the New York Declaration, and thereafter the GCM, have been the manifestation of a remarkable development for the nexus: climate change and the environment have made their entrance into the 'migration realm', or, you could say, the nexus is gradually making its way into (international) migration policy documents.

Another important development regarding migration and the nexus is the adoption of the IOM by the UN family in 2016. The IOM has produced a lot of work on the nexus and by merging with this organisation, the UN reinforces its work and therefore the claims made by the IOM on the nexus. Another effect of the integration of the organisation is the change in dynamics between the IOM and the UNHCR. Before the merge, the IOM and the UNHCR were somewhat contestants (Elie, 2010, p.353), but now these two organisation find themselves in a more familial kind of competition. The UNHCR has also undertaken quite a few activities regarding the nexus, which can now be seen as in synergy with IOM's activities.

4.2.3 Security as Primary Concern

At the same time of these developments in the migration and climate change policy areas, another policy field has taken its own turn with climate change and migration, namely the policy field of security. The security aspect of both topics has sparked various research projects and initiatives. In 2015, in Sendai Japan, an international policy document was adopted for the next fifteen years, focused on security, preventing disaster risks and development, but

thereby also largely focused on climate change; promoting preparedness, resilience and better governance. It states: “Disasters, many of which are exacerbated by climate change and which are increasing in frequency and intensity, significantly impede progress towards sustainable development” (UN, 2015, p.10). It identifies climate change as “one of the drivers of disaster risk” (ibid, p.11) and promotes policy formulation at national and local levels to be “aimed at addressing the issues of prevention or relocation … of human settlements in disaster-risk prone zones” (ibid, p.18).

This is related to the mission of the former Nansen Initiative and the current Platform for Disaster Displacement (PDD). The Nansen Initiative was a “state-led consultative progress to build consensus on a Protection Agenda addressing the needs of people displaced across borders in the context of disasters and climate change”. The Initiative build on Article 14(f) of the Cancun Agreement and ended when the Protection Agenda was endorsed in 2015. The resulting Platform for Disaster Displacement continues the same progress, but now on the Protection Agenda’s implementation. The UNHCR and the IOM are “standing invitees” to its steering group (PDD, “Steering Group”).

4.2.4 The Nexus as Primary Concern

There are some intergovernmental bodies and organisations that include both climate and migration in their objective or mission. Among those is the Task Force on Displacement. This Task Force was established by the Executive Committee of the Warsaw International Mechanism (WIM) for Loss and Damage, a body of the UNFCCC, as was decided at the Paris negotiations (Nash, 2017, p.56). Thereby the nexus was institutionally integrated into the work of the UNFCCC (Nash, 2017, p.57), with a mission to provide recommendations on how to face displacement related to climate change. Nash thereby argues that the creation of this Task Force showed that the actors in the nexus are moving from solely trying to generate more awareness, to having a say in policy (Nash, 2017, p.61).

4.3 Migration & Climate in National Policy

At the time of writing, the most recent developments on immigration rights and policy related to climate change have taken place in the Pacific. The New Zealand Cabinet produced an action plan on Pacific climate change-related displacement and migration, in which it is stated that New Zealand will allocate funding to “avert and delay climate-related displacement”, creating a dialogue setting for international cooperation and “commissioning robust research” to

better understand developments in the near future (Ministry of Business, Innovation & Employment, “Final Cabinet paper”; Office of the Minister of Foreign Affairs, “Pacific climate change-related displacement and migration: a New Zealand action plan, p.12).

Regarding climate change and emigration, Kiribati has the most progressive adaptation framework specifically written on these issues: the Kiribati National Framework for Climate Change and Climate Change Adaptation, which states that it considers ‘‘active promotion of permanent emigration to other countries’’ (Office of Te Beretitenti, 2013, p.5). In part 2.4, ‘‘Population and resettlement’’, it is mentioned that Kiribati is in conversation with other countries, “to establish a community which can then sponsor and assist the inevitable migration of the whole population’’ due to climate change (Office of Te Beretitenti, 2013, p.21).

New Zealand will most probably remain to be a host society to possible migration from the smaller islands in the Pacific, has a separate section for “Pacific migration” and “Pacific climate migration” on its website and produced a work programme (Ministry of Business, Innovation & Employment) to make sure efficient mechanisms are in place. From 2020 onwards it will be possible to apply for residence in New Zealand on the basis of a “Pacific Access Category Resident Visa” according to their website (Ministry of Business, Innovation & Employment). These policy developments in the Pacific therefore represent the most progressive action by national governments insofar when looking at climate change and migration related policy, internationally.

TIMELINE

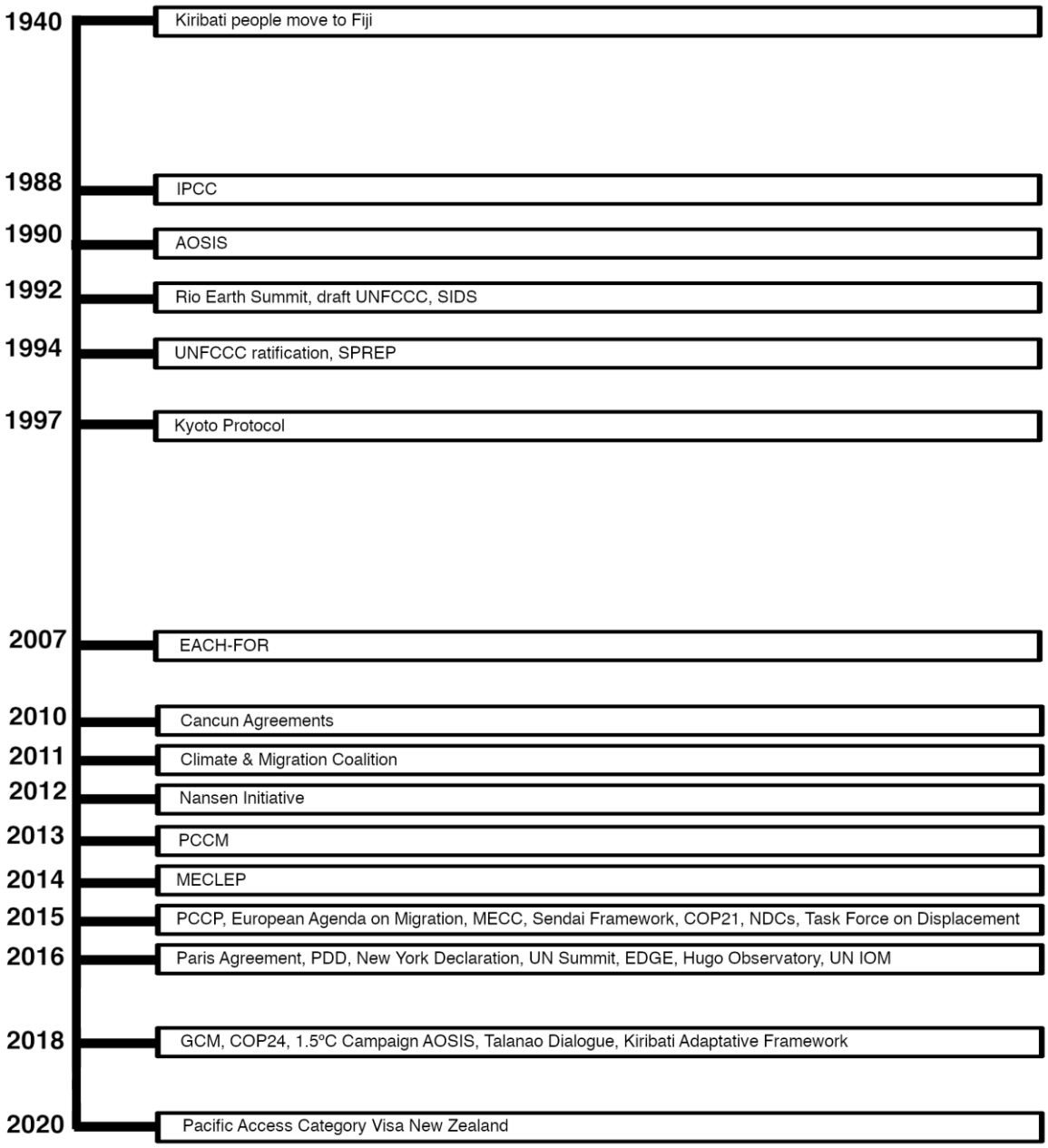

Fig. 9. Timeline

5. Knowledge Production Patterns

This chapter will look at the knowledge production patterns that have developed in the Netherlands, or internationally but with influence on the Netherlands' case. This will include the actors and developments regarding research, dialogue- and working groups as well as other relevant sources that touch the nexus. Therefore, this chapter will give an answer to how knowledge on climate change en migration is produced, one of the sub-questions mentioned in Chapter 3. Additionally, it will be seen in this chapter whether one can speak of an epistemic community that concerns itself with climate change and migration.

5.1 Knowledge Production on the Nexus in the Netherlands

In the Netherlands, there are some specific organisations that contribute to knowledge production on the nexus. An important organisation regarding research and data on the Netherlands is Statistics Netherlands (CBS), an administrative autonomous authority with a legal basis, which has the public task to answer the demand for "independent and reliable information that advances the understanding of social issues" (CBS, "Organisation"). They provide statistical information on both the population, including migration topics as well as the environment, including developments regarding "green growth" (CBS, "Society").

Another important source of knowledge regarding migration and migration policy in the Netherlands is the Research and Documentation Centre (WODC), which is officially part of the Ministry of Justice and Security (WODC). They conduct independent research whilst functioning as a knowledge centre for the Ministry. Its "major output is knowledge for the benefit of policy development" (WODC). However, they have only one report in their database that mentions climate change as well as migration, wherein climate change is addressed as a threat (Noordegraaf et al., 2018, p.34). They did produce a booklet together with CBS on migration: "Migration Illustrated" (2018). It basically includes frequently asked questions about migration and the Netherlands, answered with statistics and illustrations (ibid). It was published as "public-friendly": for "a better understanding of current Dutch migration policy" and mentioned by one of the interviewees at the Ministry of Justice and Security (Ministry of Justice & Security, interview, May 2019).

Next to these two (essentially) government organisations, there is the European Migration Network (EMN), which' research was also included in the State of the Art conference

of the Ministry of Justice and Security, the Netherlands Scientific Council for Government Policy (WRR) and research centres focused on migration harboured by universities like the Institute for Migration & Ethnic Studies (IMES).

Regarding climate change, the Netherlands Environmental Assessment Agency (PBL) conducts "strategic policy analysis regarding the environment, nature and spaces" (PBL, "About PBL"). It is a part of the Dutch government and part of the Ministry of Infrastructure and Water Management (ibid). They aim their research at guiding policy but independently decide whether they research certain topics or not (ibid). They have a team that focuses on international developments regarding their focus topics, which collaborates with other research organisations in other countries, in competing for funding and conducting research projects (PBL, interview, March 2019). This team includes researchers who have contributed to the reports of the IPCC and the UNEP Emission Gap Report (ibid; UNEP, 2018). They have also produced Dutch summaries of IPCC reports in order to inform Dutch policymakers (PBL, "Klimaatverandering"). The Royal Netherlands Meteorological Institute (KNMI) monitors the climate and simultaneously functions as the national research and information centre for meteorology, climate, air quality and seismology (KNMI, "About KNMI").

In addition to these organisations that are mainly providing output either in regard to climate change or concerning migration, the Clingendael Institute based in The Hague has had various reports published that touch upon the nexus. This institute is predominantly occupied with international relations and states it's an "independent think-thank and diplomacy academy" (Clingendael), although they are for 75% dependent on Dutch ministries for funding. They organise research to various themes including migration and sustainability (ibid). The only expert who is mentioned under both themes is Louise van Schaik, the "Head Sustainability Centre, Europe in the World Unit/ Senior Research Fellow" (Clingendael, "Migration"; ibid, "Sustainability"). She has written various articles and policy briefs that cover the nexus, like "Climate-Migration-Security: A Contested Relationship" (Bakker & Schaik, 2017) and "Fighting an existential threat: small island states bringing climate change to UN Security Council" (Lossow, Sarris & Schaik, 2018).

These policy briefs were produced in the context of The Hague Planetary Security Initiative (PSI), of which van Schaik is the project manager. The Hague Planetary Security Initiative was launched by the Ministry of Foreign Affairs of the Netherlands. Its objectives are to "enhance political involvement in climate-security, strengthen the knowledge-policy interface by consolidating a global, cross-sectoral and interdisciplinary community of practice, develop and promote policies […] and operate as a permanent platform for international cooperation on planetary security" (PSI, "About us"). In order to achieve this, they hold an annual conference and have a website including publications (PSI). The nexus is a recurring topic discussed in relation to security in their conferences and other activities. PSI has brought

about academic articles on the six “action areas” defined in the “The Hague Declaration on Planetary Security” (PSI, “The Hague Declaration”), including “Creating an Institutional Home for Climate Security” and “Enhancing Coordination on Migration” (ibid). One of the actions mentioned regarding the migration action area, is the article by Abel et al., (2019), which states that it has found a causal link between climate, conflict and migration, and that the “impacts of climatic conditions […] played a significant role as an explanatory factor for asylum seeking in the period 2011-2015” (PSI, “Actions”). One of the conclusions of Abel et al. (2019) was that the results of their research “provide empirical backing to the connection of these two policy goals in the design of climate change responses at the global level” (p.247). This is an important conclusion as this would mean that international policy making regarding climate change and migration would need an integrated approach, similar to this thesis’ argumentation.

Next to these organisations which are in close collaboration with the Dutch government, there is Wageningen University, which is a Dutch university known for its research to climate change and the environment. They have a dossier on migration and refugees and have published various articles regarding the governance of climate migration (WUR). Other notable output regarding the nexus was the contribution of their researcher, Dr. Ingrid Boas, to the Peninsula Principles on Climate Displacement within States, which “offer a guiding framework to protect and enhance the resilience of those groups and individuals displaced as a result of climate change” (WUR)[41].

From all of the actors and organisations mentioned, notable Dutch contributors include: Ingrid Boas (Wageningen University), Louise van Schaik (Clingendael), Tom Middedorp (former Chief of Defense), Michel den Elzen (PBL, co-author IPCC), Andries Hof (PBL, co-author IPCC), Ivo de Zwaan (UNFCCC focal point), Marcel Berk (IPCC focal point). All of the Dutch organisations mentioned above are visualised in the following image.

[41] For more information on the Peninsula Principles see: http://displacementsolutions.org/

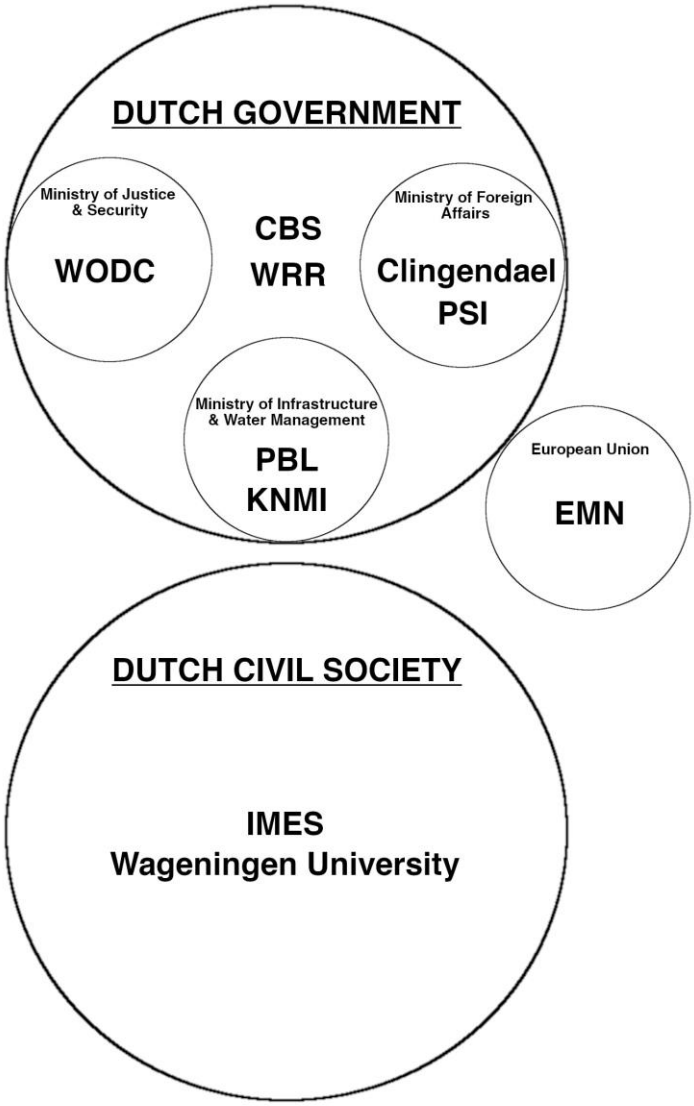

Fig. 10. Knowledge Production on the nexus in the Netherlands

5.2 Knowledge Production in Intergovernmental Settings

5.2.1 United Nations

Migration studies as well as public administration studies both often refer to the IOM's and United Nations' publications, frameworks and declarations for migration-related definitions. Likewise, public policy and policy deriving from civil society organisations and movements, rely on these kinds of institutions for policy definition, formulation and implementation. Therefore, the definitions and discussions that prevail in the IOM and UN concerning migration and climate change issues relate directly to academic research as well as public policy.

The IOM MECC Division, especially set up to research the relation between the environment, climate change and migration, has the mandate to "oversee, support and coordinate the development of policy guidance" regarding the nexus (IOM, "Migration, Environment and Climate Change (MECC) Division"). The website of the MECC Division, named the Environmental Migration Portal, has the most extensive content on the nexus available online, including pages on research, policy, capacity building, news and many publications (IOM, "Environmental Migration Portal"). The Division was the first institutionalised entity dedicated to research to the nexus (ibid). It advocates for international policy on the matter and constitutes initiatives like the Platform on Disaster Displacement, with which it has a partnership (ibid). According to the website, they have executed and/or funded more than a thousand projects on the nexus (ibid). Erasmus University Rotterdam in the Netherlands was one of the six partners that conducted the "Migration, Environment and Climate Change: Evidence for Policy" (MECLEP) project aimed at contributing to the "global knowledge base on the relationship between migration and environment and change" (IOM, "MECLEP"). Moreover, the Division has produced a Policy Briefs Series with currently four volumes since its creation in 2015. Some of the issues are focused on themes like governance or development, and others analyse the situation regarding the nexus in a certain country (IOM, "Policy Briefs").

On a similar note, the IPCC has, in its 31 years of existence, produced five Assessment Reports[42] about climate change with contributions of experts worldwide (IPCC, ''History''). The latest report, which was also presented during the 2018 UNFCCC Conference in Katowice, is the ''Special Report: Global Warming of 1.5º'', which includes the evaluation of what would happen if global warming reaches 1.5 degrees Celsius above ''pre-industrial levels'' (IPCC, ''Special Report: Global Warming of 1.5º''). In essence, it is stated that the world's population should do its utter best to prevent temperatures to rise above that level. Beside its conclusions, these reports have been the most preeminent example of international cooperation of trying to bring science closer to policy regarding climate change; most noticeable by the "Summary for Policy Makers" at the beginning of every report (IPCC, "Reports"). Various Dutch academics have contributed to a variety of these reports.

There are three working groups working on these reports, namely: Working Group I: The Physical Science Basis, Working Group II: Impacts, Adaptation and Vulnerability and Working Group III: Mitigation of Climate Change (IPCC, "Working Groups"). These working groups are a clear representation of three themes that have developed considering climate change and migration research and policy; evidence-based policy, adaptation and mitigation.

Apart from this, the UNHCR has published reports, organised expert consultations and taken actions regarding climate change and migration ("UNHCR, the Environment and Climate

[42] The sixth Assessment Report is planned to be published in 2021 (IPCC, "Reports").

Change"). They are in collaboration with other organisations like IOM, UNU-EHS, UNDP and the IDMC through the 'Advisory Group on Human Mobility and Climate Change' which "is committed to mobilizing the knowledge and expertise to support the design of effective human mobility resilience measures to climate change" ("Climate Change and Human Mobility Solutions Agenda"). As such, various UN entities have been occupying themselves with the nexus, approaching it from their respective disciplines or policy areas. Being part of the UN, actors in the Netherlands often are involved in these activities.

5.2.2 Platforms, Coalitions and Groups

Various platforms, coalitions and groups are working on the nexus as well. It is not quite possible to analyse all of them in this chapter, however, six will be set out here to show what kind of actors are involved and in what way. Considering these actors, the connection with the Netherlands is less apparent for some, however the results of their actions are important regarding the nexus and as such, they are for the case of the Netherlands as well, contextually.

The Hugo Observatory is a research platform "exclusively dedicated" to climate change and migration (The Hugo Observatory, "About"). They have conducted many research projects and published, for example, the "Atlas of Environmental Migration" (2016), the "Routledge Handbook of Environmental Displacement and Migration" (2018), and the annual "The State of Environmental Migration", whilst advocating for evidence-based policy development (The Hugo Observatory, "Publications"). As part of University of Liège, they offer courses on migration, natural hazards and risk management. Next to this, they have attended COPs and launched various projects, like EDGE, which included conferences, a summer school and joint publications with other universities.

The EDGE project is an example of a research project funded by Horizon 2020, a huge research and innovation programme of the European Union. In its Work Programme of 2018 to 2020 it has a call for proposals regarding 'climate and the human condition', also aimed at policy recommendations for the European Agenda on Migration (European Commission, 2018, p.19). In the European Agenda on Migration it is stated that "civil war, persecution, poverty, and climate change all feed directly and immediately into migration, so the prevention and mitigation of these threats is of primary importance" (European Commission, 2015, p.7). It claims that this is necessary in order to reduce the incentives for irregular migration.

Another example of a research project funded by the European Union is the Pacific Climate Change and Migration (PCCM) project by the UNESCAP[43], UNDP[44] and ILO[45], which

[43] (United Nations Economic and Social Commission for Asia and the Pacific)
[44] (United Nations Development Programme)
[45] (International Labour Organisation)

was aimed at creating a "knowledge base on migration flows, policies and practices", as well as improving abilities of governments to act on this matter in affected areas, and increasing "regional knowledge sharing and cooperation" (UNESCAP). It involved a survey of 6,852 individuals on 9 islands, during which 23% of the respondents in Kiribati and 8% of the respondents in Tuvalu "named climate change as a reason for migration decisions" (UNU-EHS, 2015). Moreover, it was found that most migration due to climate change is expected to be internal, also due to the fact that international migration options are very limited to these populations (UNU-EHS, 2015).

The last project funded by the EU which will be highlighted here, is the EACH-FOR project, which was largely funded by the European Union and included many partner universities, like Erasmus University Rotterdam (European Commission, "EACH-FOR"). This study was mainly done to find out whether there would be a "flow of environmentally forced migrants" to the EU (ibid)[46]. At a conference attended by academics, policymakers and others, the outcome of the project was discussed (ibid). It included 23 case studies of "problematic areas" for potential risks of forced migration due to environmental degradation and the creation of possible scenarios on the basis of those analyses (ibid). The key findings represented what most studies have found about migration in relation to climate change and the environment: migration is a common adaptive strategy, occurs when livelihoods cannot be maintained, that migration decisions are complex and most migration due to climate change is internal displacement rather than international migration (European Commission, 2009, p. 70-73). More importantly, it was established that like other forms of migration, most migrants that move because of the environment and/or climate change, would be categorised as internally displaced (IDPs) or migrate within their respective world region and not to Europe (ibid, p.75). Also, it has been, next to the MECLEP project, one of the few large-scale studies to migration associated with climate change and the environment, whereby in this case, it was tried to use an unified methodology (Warner, 2011). Other important projects that completely focus on environment and migration are KNOMAD and the CLiMig Project (IOM, "Projects").

Apart from these projects founded by the EU, the Climate and Migration Coalition is a group which' aim is to "ensure a people centred policy response at the national and international level", by advocacy, knowledge production, sparking conversation about the nexus and spreading the stories of people who have already migrated because of changes in their environment (Climate and Migration Coalition, "Our Work"). They also organise web lectures and

[46] This paper will not go into lengthy discussion about the choice of words here, but it is acknowledged that the use of words in the category of water are often used regarding migration, like 'flow', 'floods' and 'streams'. This kind of framing in the media and politics of migration topics was problematised by many, arguing that "water metaphors convey the notion of danger" (Kainz, 2016).

events, under the wings of the Climate Outreach and Information Network (COIN) (COIN, “Resources: Migration”).

Next to this, there is the Pacific Climate Change Portal by the Pacific Regional Environment Programme (SPREP), which is a platform for all resources regarding climate in the Pacific. SPREP is the “lead regional coordinating agency for climate change and meteorology”, aimed at “mainstreaming climate change, extreme events and associated risks into sector policies and linking these to national sustainable development processes” (PCCP, “SPREP”). It thereby brings various partners and donors in one place and documents projects executed by these organisations. Current projects under this umbrella include, for instance, the ‘Global Programme Sustainable Management of Human Mobility in the Context of Climate Change’.

5.2.3 Academics

Academic work that has been done regarding the nexus includes a large body in the realm of international law. Noticeable in this field are the publications by Jane McAdam (2008; 2011), who wrote many articles, books, reports and conference papers about climate change and displacement, with pertaining issues due to the incompatibility of climate change and the grounds for seeking refuge in particular (UNSW Law). What is noticeable about knowledge production concerning this topic, is that there is a select group of scholars involved in research to the nexus of climate change and migration. They come from a variety of disciplines, including: international law, geology, sustainable development, security and migration studies. Although a larger group of scholars may have addressed the nexus in their work, there are not a lot of people who have chosen to devote their academic careers completely to the subject. The following scholars are listed because they have attributed a large share of their work to the nexus: Ingrid Boas, Frank Biermann, Kees van der Geest en Louise van Schaik. Internationally this list is extended with Sarah Nash, Koko Warner, Ileana Sinzania Puscas, Dina Ionesco, Jane McAdam, Frank Laczsko, Norman Myer, Gaim Gibreab, Richard Black, Stephen Castles, François Gemenne, Essam El-Hinnawi and Steve Lonergan.

5.2.4 Knowledge Production on the Nexus Internationally

Seeing the actors involved and their policy actions in this chapter, knowledge on the nexus is produced in different networks and types of organisation. It is a matter that is addressed at multiple levels of governance. There is a group of actors within the UN that produce reports and conduct research to the nexus. The actors in this group conduct their analyses with a main focus of shedding light on migration developments in relation to climate change and do

so by field research, desk research and literature reviews. The products of these efforts include reports, policy briefs and are often directed to guiding international policy making. The UNFCCC and within that Framework, the IPCC, have a focus on climate change and the environment, whereby they touch upon the relevance of migration patterns internationally. Therefore this group of actors produce their knowledge from mainly two different disciplines, but all internationally as well as with focal points and contributors present in the Netherlands.

Next to this there is a group of actors active in civil society which produce knowledge on the nexus from a more activistic point of view. These comprise compilations of information like the Climate & Migration Coalition, in order to give the nexus a central platform. In the same group, there is the Hugo Observatory which produce academic material on the nexus involving various scholars which analyse the developments regarding the interaction of climate change and migration patterns. This group might interact with international political organisations like the European Union, as the EU regularly makes funds available for research projects which are deemed to address issues where there is a demand among policy makers for more knowledge. An example of such interaction is the participation of Francois Gemenne in the MECLEP and EACH-FOR projects. However, this kind of interaction is on a project basis and the allocation of funding based on competition of research proposals, not on shared causal beliefs regarding the nexus by both the EU and scholars involved. Interaction between these specific actors and actors within the UN group are visible by publications such as the Atlas of Environmental Migration (2016), which was written by Francois Gemenne (Hugo Observatory), Dina Ionesco (IOM) and Daria Mokhnacheva (IOM).

Next to these two groups there are intergovernmental political actors which contribute to work on the nexus by advocacy, diplomacy, setting up of agreements and continuing collaboration on state-level. These actors therefore do not, as such, contribute to the literature, but rather focus on addressing the nexus' current issues and necessary policy advancements. The Platform on Disaster Displacement for instance, organises meetings between heads of state, but also functions as a knowledge platform by providing resources on their website, but it does not conduct research as of itself.

This variety of actors producing work regarding the nexus results in the following visualisation:

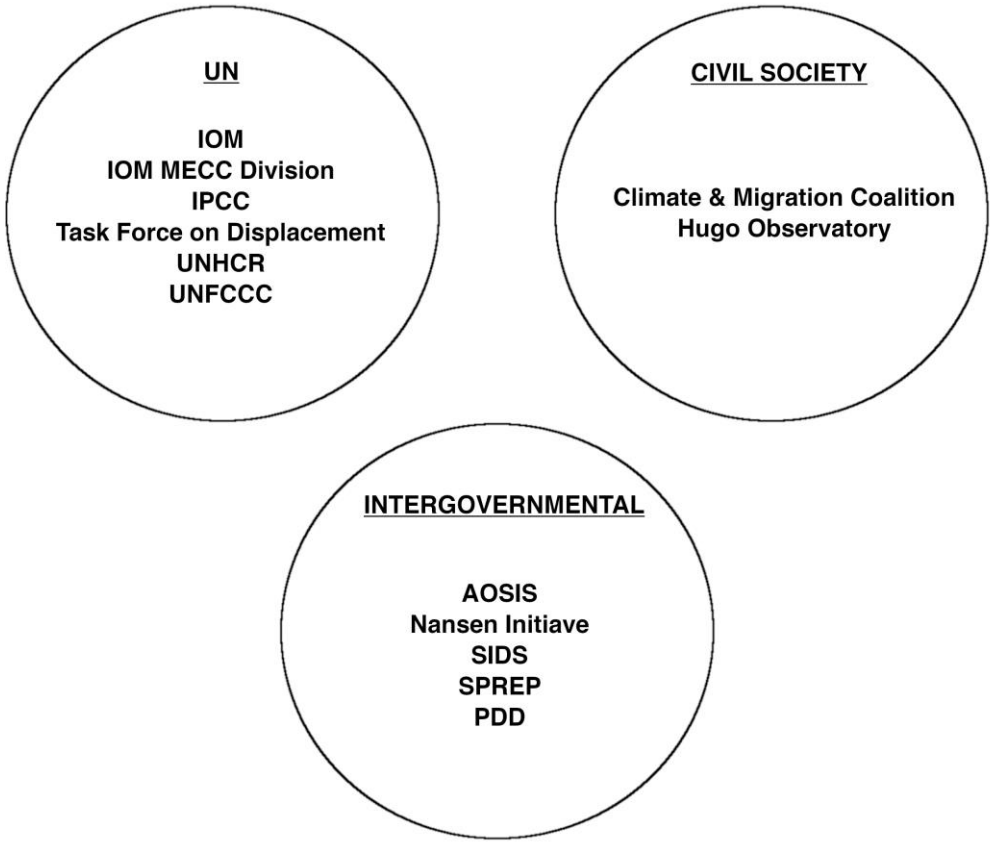

Fig. 11. Knowledge Production on the nexus internationally

5.3 Knowledge Claims

Knowledge claims of which it was traced whether they are known by interviewees, and if so- perhaps even used in policy processes, include the following:

1. The IPCC Special Report and its introduction named ‘Summary for Policymakers’.

This is a report arguing for the limitation and reduction of climate change and thereby the rise of global temperatures, instead of letting emissions continue to increase “global mean surface temperature” (IPCC, Core Concepts), as 1.5 degrees will already have profound consequences on the world’s environment and human livelihoods. An example of this, is that the difference of staying below 1.5 degrees above pre-industrial temperature levels instead of 2

degrees, is the projection that “up to 10 million fewer people would be exposed to related risks […] assuming no adaptation” (IPCC, B.2.1).

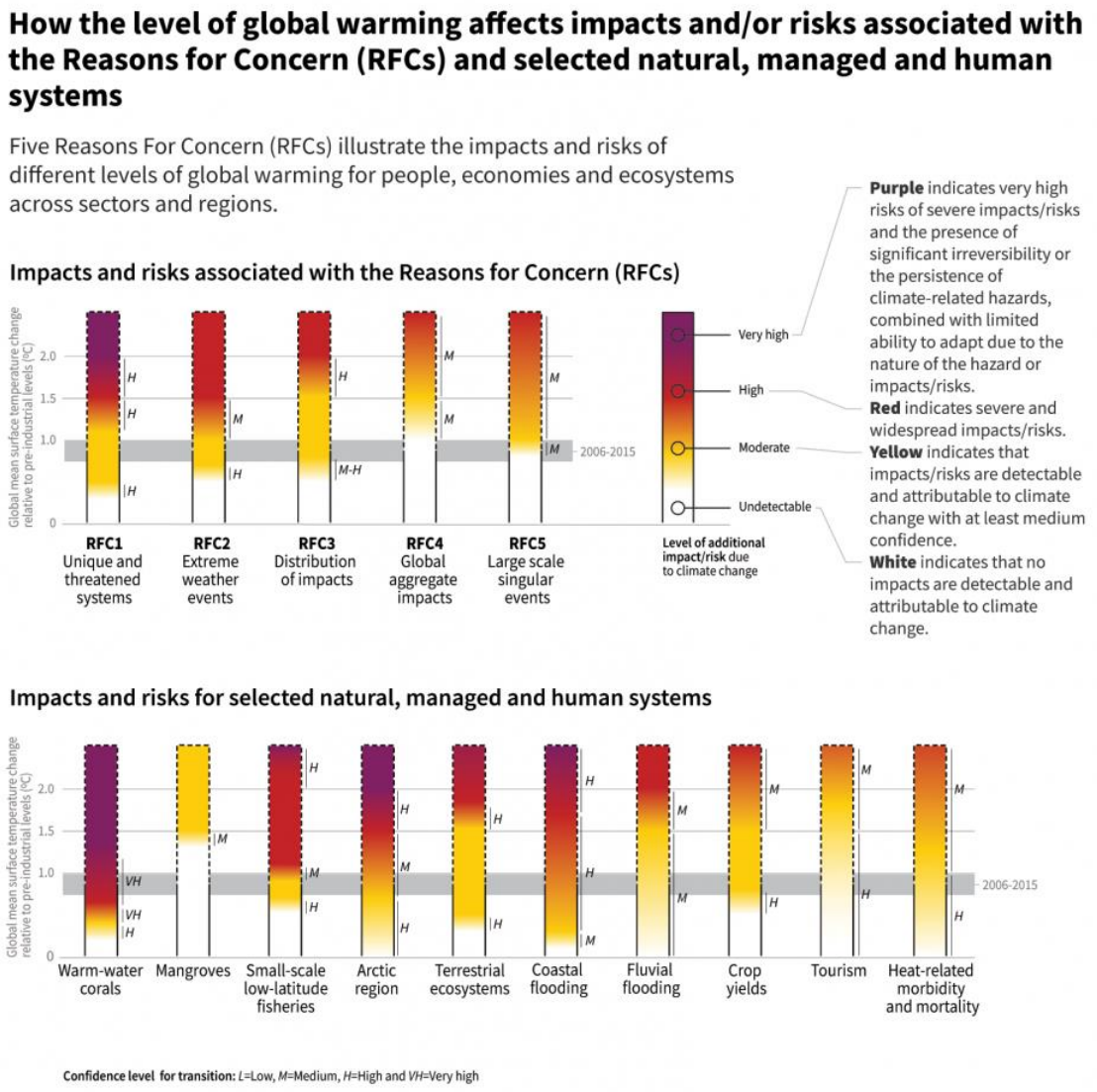

Fig. 12. How the level of global warming affects impacts and/or risks associated with the Reasons for Concern (RFCs) and selected natural, managed and human systems

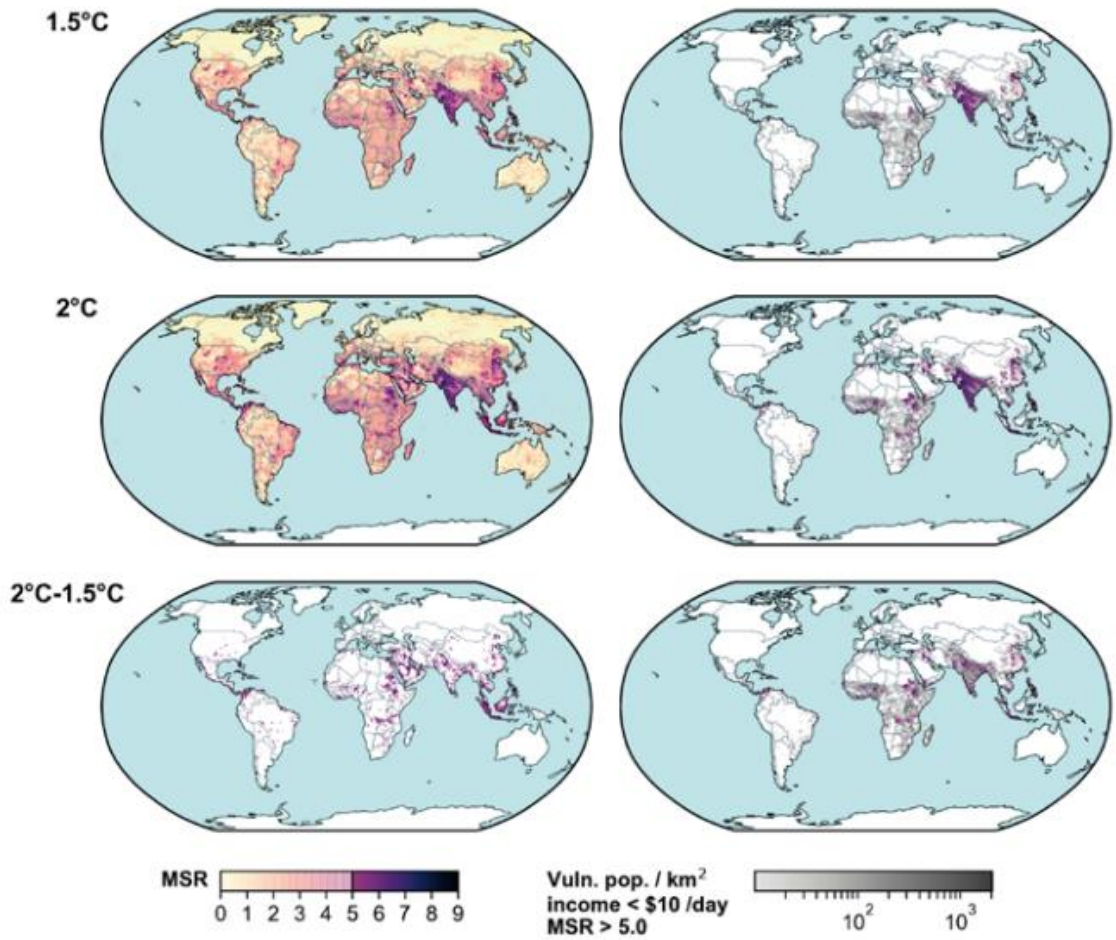

Figure 3.19 | Multi-sector risk maps for 1.5°C (top), 2°C (middle), and locations where 2°C brings impacts not experienced at 1.5°C (2°C–1.5°C; bottom). The maps in the left column show the full range of the multi-sector risk (MSR) score (0–9), with scores ≤5.0 shown with a transparency gradient and scores >5.0 shown with a colour gradient. Score must be >4.0 to be considered 'multi-sector'. The maps in the right column overlay the 2050 vulnerable populations (low income) under Shared Socio-Economic Pathway (SSP)2 (greyscale) with the multi-sector risk score >5.0 (colour gradient), thus indicating the concentrations of exposed and vulnerable populations to risks in multiple sectors. Source: Byers et al. (2018).

Fig. 13. Risk maps

In the image shown above, which is extracted from the respective report, the increase of severity of impacts and levels of risk correlated with the rise in temperatures is shown. It clearly displays the differences between 1.5 and 2 degrees Celsius for all 'reasons for concern' and 'selected natural, managed and human systems'. In the report it is specified that a difference between those increases, for example, results in a "sea-ice-free Arctic summer after about 100 years" for 1.5 degrees, versus a "sea-ice-free Arctic summer after about 10 years" for 2 degrees (p.212). Figure 9 shows the increase in risk at 2 degrees Celsius. From these maps it is clear that when temperatures rise to 2 degrees and above, human livelihoods in a larger amount of areas is more severely impacted. The bottom globes show the difference between 2 and 1.5 degrees increase in temperatures.

2. The knowledge that is available on- and the existence of the website of the IOM MECC Division: the 'Environmental Migration Portal'.

This is the website and ‘Knowledge Platform on People on the Move in a Changing Climate’, completely focused on migration and the environment. The information available there presents clear links between climate change, the environment and migration.

3. Existence of the UNFCCC and the Paris Agreement of 2015.
4. Claims about the nature of migration in relation to climate change and the environment:

- migration is a common adaptive strategy
- migration decisions are complex
- migration is often a multi-causal phenomenon

These sources and knowledge claims were chosen because when one types in ‘environment’ and ‘migration’ at Google, as well as when one types ‘migration’ and ‘climate change’, the first result for both searches is the website of the IOM. When searching for ‘climate change’, the first website is the one of the IPCC. When googling ‘migration’ and ‘climate change’, the first result is a report on migration and climate change of the IOM (2008) which mentions the IPCC (IOM, 2008). This search also results, as a third, in the appearance of the website of the UNFCCC. Thus, if one has ever had the interest in the possible relation between these two subjects, and Googled this with above terms, one must have come across these websites, knowledge sources available or, at least, the institutions. Next to public access to knowledge about climate change and migration, policy makers and researchers have their own sources of data and information, tailored for and/or made by the organisations that they work for.

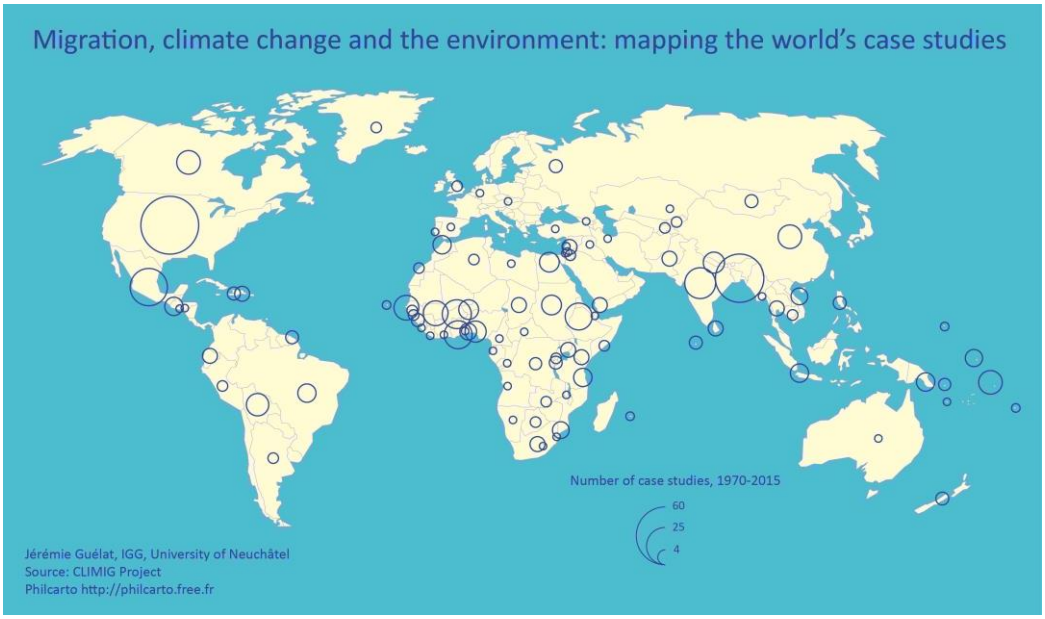

Fig. 14. Case studies on the nexus.

6. Knowledge Utilisation Patterns

Literature remains divided over relationship between climate change and migration, and therefore does not portray an unified image. Baldwin claimed in 2014 that “the debate about climate-induced migration has been dominated by its futurology” (p.121). Despite more recent empiric evidence showing otherwise, this presents a challenge regarding the analysis of knowledge utilisation by policy makers that interact with this knowledge and information. If these actors and the network they are in, can be deemed an epistemic community, the next question is whether they are able to influence the actions and policies that states and international bodies devise, in line with the knowledge present regarding the nexus. Therefore; how do the actions of such epistemic community (or not) contribute to the development of the policy field of climate change and migration? Hence, one of the sub-questions of this thesis is how knowledge on climate change and migration is utilised.

The Netherlands owes its name to its geographical location and its lands lying beneath sea level. It is well known that the country needs continuous work on its protection against rising water levels in order to keep the streets of its main economic and political cities dry. Since 2015, migration policy has got more attention in the Netherlands due to the higher rate of immigration than the preceding decade (see image below). Both policy topics are among the five central themes that the Netherlands has identified as highly important for the EU as well (Government of the Netherlands, “EU Agenda 2024”).

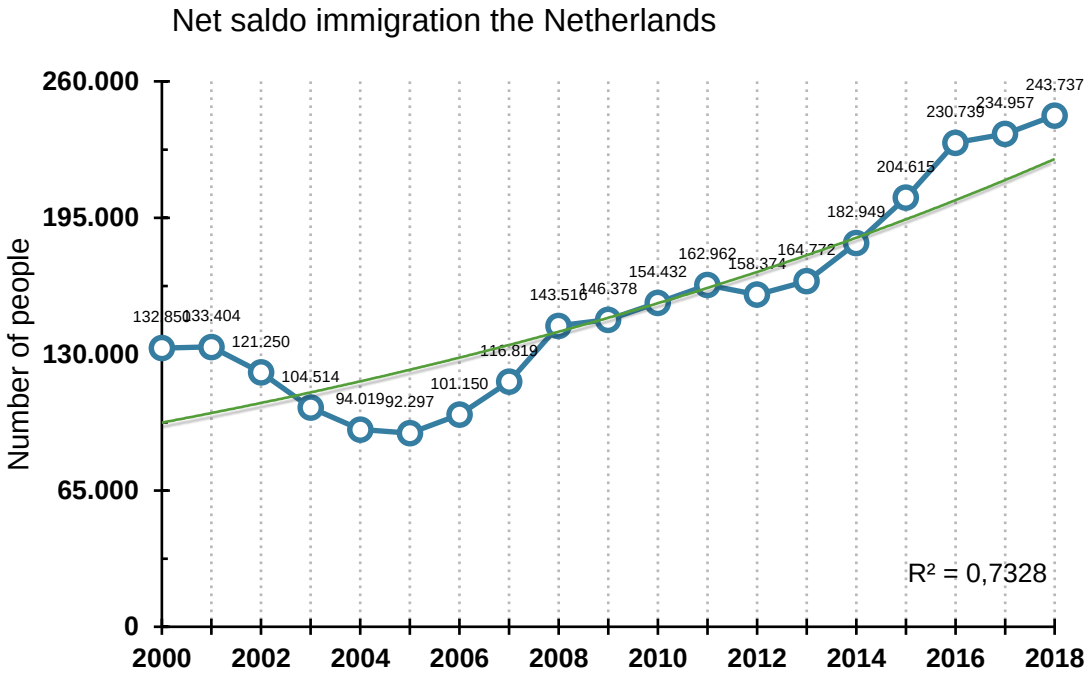

Fig. 15. Net saldo immigration in the Netherlands

In the Netherlands, climate change and migration are not addressed in one policy field. Dutch ministries are piled into 12 different ministries, differentiated regarding their topic or policy field, such as the Ministry of Foreign Affairs and the Ministry of Health, Welfare and Sport (Government of the Netherlands, "Ministries"). Seeing that climate change and migration do not fall under the responsibility of one single Ministry, the interest that is present regarding the nexus is mainly harboured within three different ministries: the Ministry of Justice and Security, the Ministry of Infrastructure and the Environment and the Ministry of Foreign Affairs. Taking this into consideration, a large share of the interviews for this research were held with policy makers working at those three ministries. This piling of ministries also means that, similar to the international context, developments regarding both climate change and migration policy have to be analysed concurrently, in order to see where references to the nexus appear. In that context, it was also tried to unravel inter-ministry connections.

6.1 Knowledge Utilisation on Climate Change by the Dutch Government

The NDC of the European Union is the NDC of the Netherlands, as the European Union is party to the Paris Agreement and has ratified the Agreement with a Council Decision (EUR-Lex). The share of the EU in total of global emissions of 2010 was 10.4% (PBL, "Climate Pledge NDC tool"). In the NDC of the EU, it is stated that its member states are committed to "a binding target of an at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990" (Latvia and the European Commission). The EU has to put in more effort to meet the targets of the NDC (ibid), and the same holds true for the Netherlands individually. A report of the NewClimate Institute, PBL and IIASA (Kuramochi et al., 2018) has shown that the EU is on track to reach meet the pledge it has made for 2020 but is uncertain whether they are going to meet the NDC emission levels for 2030 (p.i). The Netherlands aims to have reduced its emission levels to 49% compared to 1990 and is trying to get the pledge of the entire EU for 2030 to 55% (Ministry of Economic Affairs & Climate Policy, p.6). The Ministry of Economic Affairs and Climate Policy presented a proposal National Energy and Climate Plan (NECP) to the House of Representatives in June 2018, which was approved in October 2018[47]. The final version needs to be submitted to the European Commission by the end of 2019. The NECP of the Netherlands is focused on the five areas of "electricity, industry, mobility, agriculture and land use, and the built environment", of which they mainly discuss five

[47] In this letter there was a reference to the *Urgenda Foundation v the State of the Netherlands* law case during which the Court of Appeal has judged that the State "should reduce emissions by at least 25% by end-2020" (Urgenda, 2019). The Appeal before the Supreme Court has taken place in May 2019, but the verdict has not been published at the moment of writing (ibid).

elements: “decarbonisation, energy efficiency, energy security, the integral energy market, and research and innovation” (Ministry of Economic Affairs & Climate Policy, p.8).

Sector	Indicative allocation in terms of the 49% reduction target (in Mt of carbon dioxide equivalents as of 2030)*
Industry	14.3
Mobility	7.3
Built environment	3.4
Electricity	20.2
Agriculture and land use	3.5**

(*) Including the effects of the circular economy.
(**) Including 1.5 Mt of reduction from land use that does not count toward achieving the 49% reduction.

Table 5. Important sectors regarding the reduction target

The Government of the Netherlands also devised he Delta Programme, focused on adaptation and policy regarding water[48] (“Klimaatbeleid”). Next to these plans, the Netherlands is part of international agreements as mentioned in Chapter 4. These include the UNFCCC, the Kyoto Protocol and Paris Agreement. All participating countries are required to submit their National Inventory Reports every year to the UNFCCC, which include a greenhouse gas emissions inventory and an analysis thereof (RVO, “National Inventory Entity”). The Netherlands Enterprise Agency (RVO) was appointed by the Ministry of Infrastructure and Water Management to be responsible for this (ibid). Together with the National Institute for Public Health and the Environment (RIVM), they produce the necessary reports, obtaining data from two kinds of sources: individual companies, refineries and energy producers, and data analyses of diffuse emissions compiled by the CBS and the WUR for instance, which also take part in the working groups responsible for the data analyses (PRTR, “General introduction to the Emission Register Project”). In January 2019 it was established that the CO2 emissions of the Netherlands have not decreased since 1990, yet the total of greenhouse gas emissions in the Netherlands saw a decrease of 13% (PRTR, “Greenhouse Gas Emissions from the Netherlands”), see Figure 16. These reports, including knowledge and data, are in turn submitted to the E-PRTR of the European Environment Agency (EEA, “About E-PRTR”). Figure 17 shows the pathway of data and knowledge transfer of the central database for emission registration to reports and publications by various international, national and regional actors.

[48] See: https://www.government.nl/topics/delta-programme

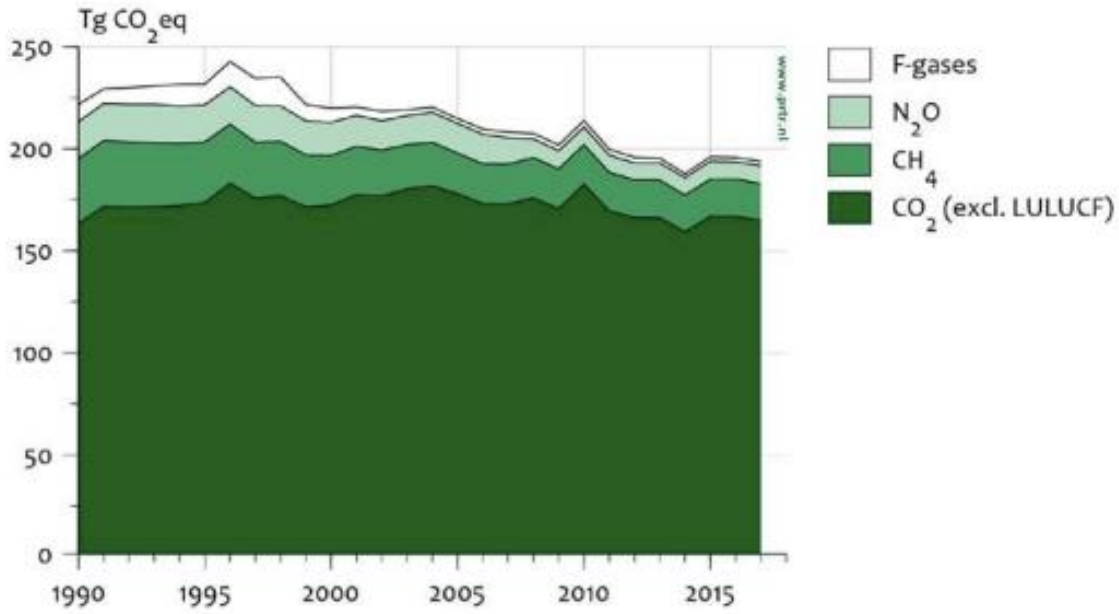

Fig. 16. CO2 Eq

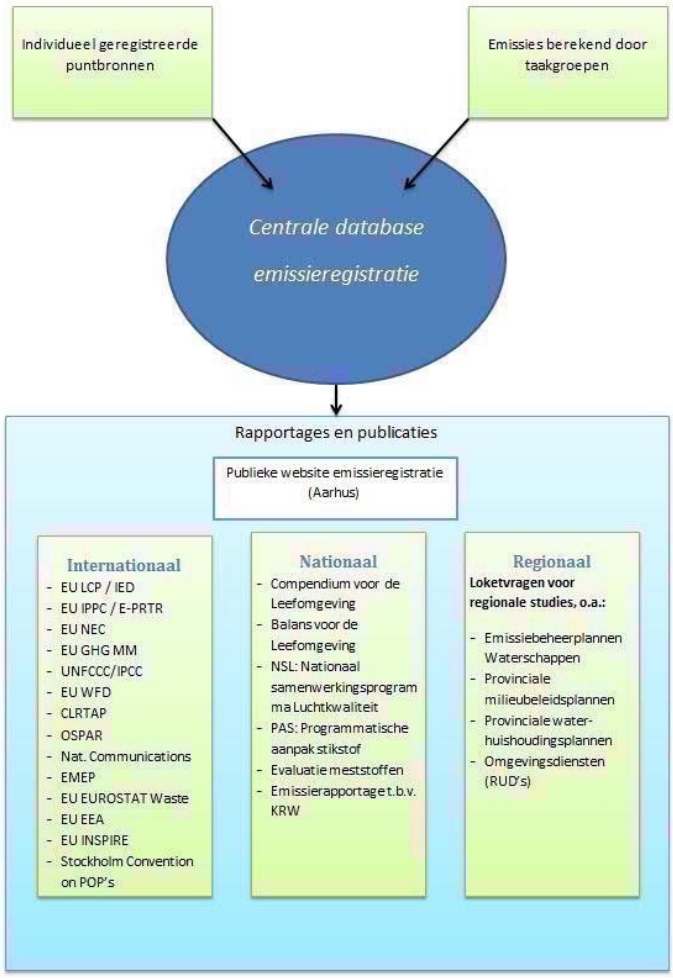

Fig. 17. Database as source for reports

During the interviews with policy officers of the Ministry of Foreign Affairs, it became apparent that they compile climate change profiles for the countries on which the Ministry focuses its development cooperation (IGG, interview, April 2019). The purpose of these profiles is to mainstream climate actions into working processes and policies of the Ministry. They are supposed to work as guidelines for policy officers' activities concerning these countries, including information on the effects of climate change on a country, with attention for the country's NDC and its ranking regarding global greenhouse gas emissions (Ministry of Foreign Affairs, 2018, p.3). Moreover, a countries' vulnerability regarding negative effects of climate change and readiness regarding adaptation are addressed (ibid). Mobility of the population is also analysed in these reports, as well as climate security. It is stated in the profile for Uganda that: "it is anticipated that as extreme weather events…become more frequent due to climate change there will be increasing risk for conflicts" (ibid, p.5). Furthermore, mobility and level of income diversity are covered, stating that: "Proximity to urban centres also increases off-farm income and thus significantly reduces vulnerability to climate variability and change" (ibid, p.5). In the paragraph about national government strategies and policies, a country's participation and ratification of international climate agreements is presented, including, for example, the UNFCCC and the Kyoto Protocol (ibid, p.6). Additionally, the profile on Uganda states that: "policies are unlikely to produce useful strategies for Uganda's farming communities if they are not complemented by locally relevant and tested strategies for adaptation" (ibid), calling for a sharing of best practices and a local approach. It also calls for "knowledge and information sharing on climate change", "prediction and monitoring", "integration of climate change issues in planning, decision-making and investments" (ibid). This integration of climate change issues in policy formulation and implementation is clear example of a call for instrumental knowledge utilisation. Finally, the profile includes a section on how "the Netherlands supports climate-relevant projects in Uganda through a variety of channels and in cooperation with a range of actors in the fields of food security, renewable energy and disaster risk reduction" (ibid, p.9).

The compilation and purpose of these climate change profiles therefore constitutes an instrumental use of knowledge on climate change. The way the IGG tries to get all actions of the Ministry of Foreign Affairs to adapt an element of sustainability and awareness of climate change, shows the direct adaptation of research results and using this knowledge as a direct tool and guide for policy. The knowledge utilisation of this IGG department is therefore instrumental. However, it has to be noted, that this does not automatically translate in instrumental knowledge utilisation by the Ministry of Affairs overall.

One of the two policy officers of the IGG department that were interviewed disclosed that the topic of migration reoccurred in these climate profiles when they had proper information available, but that migration was "a rather new field" and stated that the link between

climate change and migration was “politically sensitive” (IGG, interview, April 2019). The country profiles therefore only touch upon mobility and not so much migration itself. This shows a simultaneous non-utilisation of knowledge on the nexus as including both climate change and migration.

Next to these climate change country profiles that are created to guide policy and policy processes, the Netherlands contributes to the combatting of climate change in developing countries with funding, knowledge and expertise, programmes regarding sustainable energy, programmes regarding combating deforestation and funding for development activities in the private sector (Government of the Netherlands, “Climate Change”). These kinds of activities can only be understood as a demonstration of instrumental knowledge utilisation if they are based on knowledge of the necessity of action regarding climate change and evidently impact the combatting of climate change.

6.2 Knowledge Utilisation on Migration by the Dutch Government

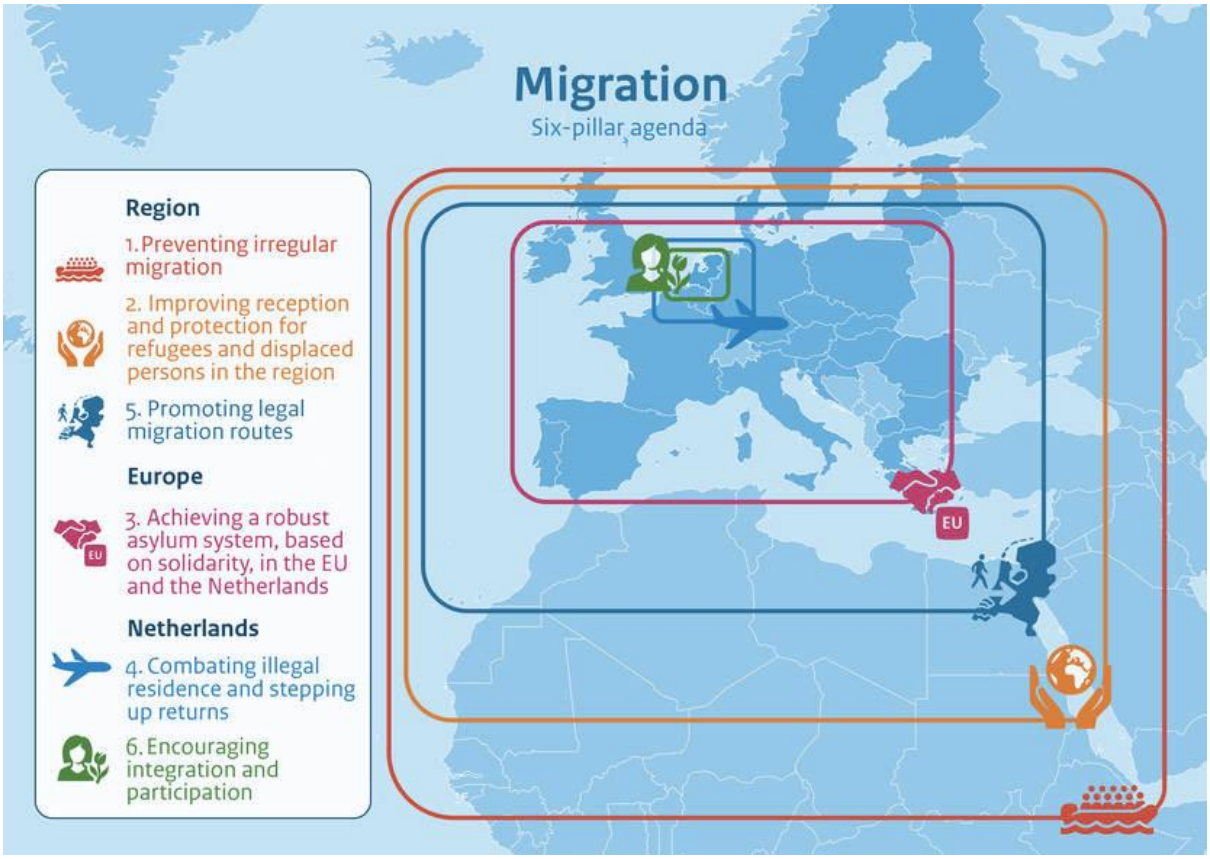

Fig. 18. Migration: Six-pillar agenda

In response to a paragraph in the Coalition Agreement “Confidence in the Future” of 2017, which mentions that the root causes of migration will be addressed with a targeted approach

to improve shelter in the region (Coalition Agreement, 2017, p.49), the Migration Agenda was devised (interview, Ministry of Foreign Affairs, March 2019). In this “Comprehensive Agenda on Migration” (Ministry of Justice & Security, 2018) of the Dutch government, it is acknowledged that migration is complex issue (ibid, p.2). Dutch migration policy is based on the six pillars shown in the image below and is ought to tend to this multi-faceted dynamic of migration developments that impact the Netherlands.

The first pillar is “tackled” with addressing the “root causes in countries of origin” (ibid, p.3). “Conditions relating to climate change and the living environment” are mentioned as reasons for people to “feel compelled to leave” (ibid, p.3). Partnerships and collaboration with countries of origin, the EU, the UNHCR and the IOM (ibid, p.4) are noted as means necessary take effective action. Agreements like the Global Compact are posed as constructive to enhanced border management (ibid, p.5). In that particular paragraph and the rest of the Agenda, it is not elaborated as to how the Dutch government plans to address the root cause of climate change.

The fact that the Ministry acknowledges that migration is a complex problem, does show instrumental knowledge utilisation. However, migration theory argues that in the initial phase of people’s increased prosperity, they actually start to migrate: “emigration generally *rises* with economic development until countries reach upper-middle income, and only thereafter falls” (Clemens, 2014). It is stated in literature that “the trigger for migration is low relative income and not low absolute income” (Vernazza, 2013). Therefore, the fact that the decrease of poverty and increase in income are mentioned as reasons for people not to migrate, does not show instrumental knowledge utilisation.

The effectivity of tackling root causes to combat illegal migration is very much dependent on its implementation. If tackling root causes of migration means that the local economy and business are stimulated, or that aid is offered to people in need, the effect of this will be dependent on other contextual factors. The poorest of the poor will not migrate as they still do not have the means, and a higher level of prosperity amongst others often results in having knowledge of opportunities elsewhere and the possibility to move. Another part of this policy does address this, as it is mentioned that attention should be given to creating future perspectives; when people do have a future perspective, increased prosperity does not necessarily translate to migration.

The Ministry of Foreign Affairs has a Migration Policy Office, responsible for the coordination of migration policy within the Ministry of Foreign Affairs and the support of the Special Envoy for Migration. This Special Envoy is the primary person to undertake negotiations related to migration on behalf of the Netherlands that happen internationally, for instance in the framework of the European Union or with other countries. Important regarding their activities,

according to the Special Envoy for Migration, are the Rabat Process and the Khartoum Process (interview, Ministry of Foreign Affairs, March 2019). This also holds true for cooperation with countries that migrants depart from and the agreements made during the Valetta Summit on migration (ibid). When asked about climate change and migration, the Special Envoy stated that there have been project proposals in the Netherlands and in the EU framework which are concerned with food security, irrigation systems, water infrastructure systems and battling desertification. “These are derivatives of climate change but are not labelled as such” (ibid).

The Ministry of Justice and Security of the Netherlands is responsible for the nation’s migration policy. In the Ministry, within the Directorate-General for Migration (DGM), there is a ‘Team Strategy and Connection’ with “knowledge brokers”, who have the task to gather and spread knowledge for and within the Ministry (Ministry of Justice & Security, interview, May 2019). They have a variety of methods of doing this like university visits during which they bring along policy makers that are responsible for the particular topics that academics present their research on, to “create a interaction between policy and research” (ibid). Another way they try to engage policy makers and researchers into conversation with each other is their annual “State of the Art” conference, during which they present an overview of migration and integration research in that respective year (ibid).

The theme of their conference of 2018 was “Migration, demography and climate change: the trilemma of the 21st century” (Ministry of Justice and Security, 2018, p.3), therefore touching on content related to the nexus. Speakers at this conference included Ingrid Boas (WUR) and Monika Sie Dhian Ho, Director of Clingendael. Among the research presented were the discussed booklet of the WODC, the CROSS-MIGRATION project as part of H2020 and “Cities of migration: Theorising the ‘diversity of migration-related diversity’ in cities”, both by Prof. Scholten of Erasmus University Rotterdam (ibid). However, when asked if any follow up actions were taken upon this conference and whether the topics discussed had any effect on policy action thereafter, the answer was no. A meeting was held within the team of strategy and connection and they decided that, specifically regarding the nexus, climate change and migration repercussions would not be addressed as there was no urgency regarding the matter. This therefore present a symbolic kind of knowledge utilisation regarding climate change and migration.

In addition to this, a particular internal newsletter was mentioned: “Development and migration” by the Policy and Operations Evaluation Department (IOB) (2018). In this newsletter, it was concluded that development cooperation can contribute to the decrease of irregular migration, “but you should not expect miracles” (IOB, 2018, p.1). International (development) cooperation is one of the mentioned “policy tools” to tackle the “root causes” of migration, despite the acknowledgement that “academics have different views about how to tackle irregular migration. Some believe this kind of a policy can be effective, while others argue it will be

counterproductive” (ibid, p.2). Knowledge on migration theory is further utilised in this newsletter, as both views are presented: “Different researchers argue that development initially leads to more - not less - migration” (ibid, p.2). Climate change is not mentioned specifically in this newsletter, but they “did look at climate, but not extensively” (Ministry of Foreign Affairs, interview, April 2019).

7. Analysis

This chapter includes the analysis of the information accumulated in the previous chapters. It therefore contains the most important points regarding the policy context of the nexus, as well as findings that were made on the basis of information gathered regarding knowledge production and knowledge utilisation.

7.1 Policy Context

Even though the nexus and its effects has been a topic of interest for some countries since the 1950s, research showed that only a couple of countries have included the topic in their NDCs. Meanwhile, the debate about the exact relationship between climate change and migration continues, which extrapolates to the debate on policy formulation regarding people that move due to reasons of climate change: how to call them and whether legislation ought to be formulated to provide a framework for humanitarian aid. There have been several political campaigns initiated by countries already dealing with the effects of climate change and dialogue groups set up to discuss the proper way of adaptation, like the Talanoa Dialogue. Important landmarks were the 2010 Cancun Conference and the Paris Agreement in 2015, after which climate change and migration were included as relevant to each other in resultative policy documents; these are the first steps in international policy making concerning the nexus. Yet, most of the policy developments that have taken place that are related to the nexus, were focused on either side of the nexus: climate change *or* migration. A timeline was compiled to show the key moments in the past fifty years, during which certain agreements, collaborations of organisations or research projects contributed to the creation of a policy field regarding the nexus (See Fig. 9. Timeline). Some of these events have been listed among the knowledge claims that partially formed the input for questions during interviews with members of the presumed epistemic community.

Despite of the lack of more landmarks like this, there are some intergovernmental bodies and organisations that include both climate and migration in their objective or mission. An example of this is the Task Force on Displacement, by which the nexus was institutionally integrated into the work of the UNFCCC. It is argued that the creation of this body shows that the nexus moved from solely being a topic that needed more awareness, to a topic being relevant for international policy making.

7.2 Knowledge Production

Another sub-question to be answered was whether we can speak of an epistemic community regarding the climate change and migration nexus. The elements that need to be present to be able to establish the presence of an epistemic community were laid out in Chapter 2. According to the method of process-tracing, maps of actors acting within the framework of the nexus was analysed and presented. This leaves us with the task to see how these actors are connected and to analyse whether the elements of an epistemic community are present considering these actors. In the following figure, all the connections between the variety of actors that were described are illustrated. The threshold of showing an connection between actors was based on whether, when asked, interviewees of an organisation mentioned other actors, when they mentioned the other actor on their own initiative, or when a connection was found in the literature.

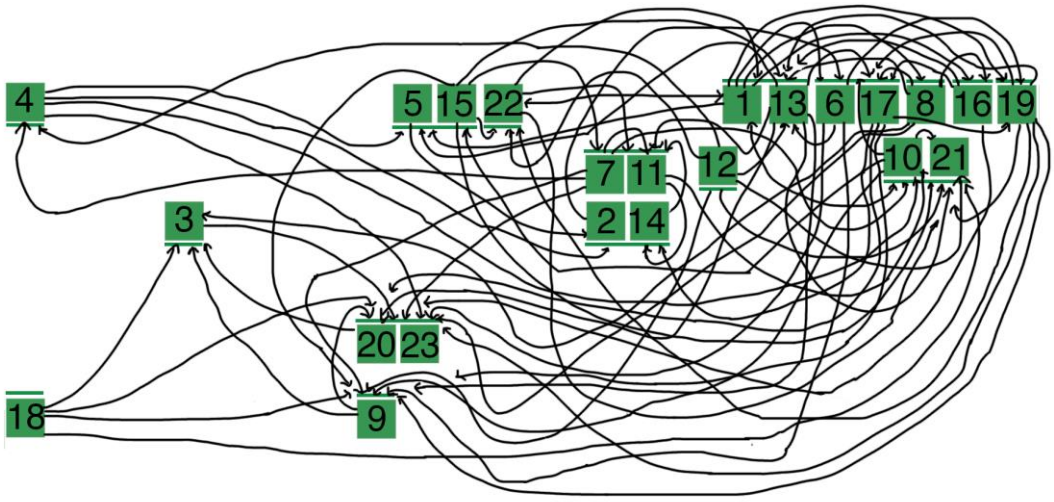

Fig. 19. The Network

This figure showing the connections between analysed actors does not immediately prove the existence of an epistemic community. It does show the existence of a community of professionals, including researchers and policy makers, working on climate change and migration (see Appendix II for list of interviewees), which matches the definition of an epistemic community. However, there are some elements attributed to an epistemic community as defined by de Haas, which' presence has to be tested.

The first element necessary to establish the existence of an epistemic community, is that this community shares normative and principled beliefs about the nexus of climate change and migration, providing a value-based rationale for social action of community members. Analysing the interviews held with actors in presumed epistemic community, this first part

proves true. The majority of the interviewees (16 out of 23) said that there is indeed a relation between climate change and migration. A minority said that they were not sure whether there is a relation or not, or that it is indirect, that there are nuances, or that climate change effects might indeed “push people over the edge” in their decision to migrate. A lot of the interviewees said to know that there are different perspectives in the literature, so that they were not sure about the causal relation, but that seeing the effects of climate change, it is presumable that more people will move due to drought or rising sea levels in the future. Whether this provides for a value-based rationale for social action of community members, is the next question. For some actors it does, as they also pressed that action is necessary, and for other is does not, as there many felt no urgency regarding this topic at this point in time.

The second requirement is that there is shared causal belief regarding climate change and migration. The shared causal belief here, is that it is unclear how climate change and migration are causally related. Some say it is hard to prove, or that there is not a causal mechanism here, but others also say that there is empirical evidence. Therefore, this shared causal belief is present.

Thirdly, a shared notion of validity of knowledge regarding climate change and migration is necessary. This is definitely present, as many interviewees mentioned various scholars, which are members of presumed epistemic community. Moreover, the scholars among the interviewees referred to each other’s work as valid and often collaborate. As one interviewee said: “The network is very important. Its well-coordinated and informally coordinated. If you start talking to us, we’ll start recommending each other.” (UNFCCC, interview, 2018).

Last but not least, what is necessary for an epistemic community, is that there is a common policy enterprise. This is true for a share of the interviewees. The common policy enterprise here is to get awareness and policy action regarding the nexus, may it be migration or climate change. As all four necessities have been established, it therefore has to be concluded that there definitely is a community of professionals, including researchers and policy makers, working on climate change and migration and thus we can speak of an epistemic community.

7.3 Knowledge Utilisation

In the Netherlands, there is no policy on climate change and migration as such. The knowledge production and utilisation processes described the previous chapters do show occurrences where knowledge utilisation and knowledge production on climate change and migration individually are promoted and acted upon. However, there is no one employee in any of the Ministries covered in this thesis that is responsible for climate change and migration. There are examples of interviewees, who in their respective Ministry, are deemed to be in charge of the

other part of the nexus than their Ministry is focused on, but next to being limited in numbers, the collaborations between such individuals is occasional, merely on an informal basis and not institutionalised. This therefore eliminates the option of an instrumental knowledge utilisation result for the Netherlands concerning climate change and migration.

Considering the elements of symbolic knowledge utilisation, this is a matter of how to interpret certain actions of the actors involved, such as the Ministry of Justice and Security. The State of the Art conference, visits to universities and lectures during lunchtime, are there to stimulate the critical thinking of the participating policy makers and inform them about certain trending issues in migration policy, however, one cannot speak of a continuous collaboration between certain academics and policy makers. Therefore, these instances of policy-academic contact constitute a symbolic trend of knowledge utilisation; the instances of contact are planned yet sporadic and with variating knowledge producers and users. This can therefore be shared under the 'working group' type of relations. The results cannot be understood as bringing about tangible policy action regarding climate change and migration. The legitimising use of knowledge utilisation can also be identified, as some of the interviewees made claims to epistemic authority and the relations with academia were gladly publicised by means of public relations. This was done to increase the respective actor's legitimacy, which can be stated without an opinion or normative judgement of this act. It is important to note, however, that this does not define all of the activities of the Ministries as symbolic only. Yet regarding the nexus, they are.

Moreover, non-utilisation of knowledge on the nexus is present in both the Ministry of Justice and Security as well as the Ministry of Foreign Affairs. Multiple interviewees stated that knowledge about the nexus is present and/or the existence of the nexus is recognised, however, that due to the absence of urgency they chose not to get involved with the subject matter. As an interviewee stated: "We ask ourselves; is this interesting and is this going to be opportune in one or two years, so that our ministers benefit from it. If it is not, we do not do it" (Ministry of Foreign Affairs, interview, April 2019). The interviewee also added: "Climate and migration is a Directorate General transcending topic, but it is going to take longer than two years so it's beyond our horizon" (ibid). Another interviewee said: "Sometimes you chose not to deal with certain topics…" because of politics, exactly "... because you will give it more attention" and this can work against your objectives (Ministry of Justice and Security, interview, May 2019). As climate change and migration are highly political matters, agenda setting and policy actions have to be carefully managed, considering the current political climate and particular discourse that may or may not want to stimulate by addressing these topics.

Furthermore, it should be noted that multiple interviewees disclosed that, in the end of the day, they are working for a Minister, and this determines a large share of their courses of

action. They always try to do as much as possible within the prevailing political framework, but in the end, “the relationship policy and research is different because no one has primacy, whilst in the relationship between policy and politics, politics has primacy” (Ministry of Justice and Security, interview, May 2019). Another interviewee mentioned this as well: “80% is politics” (interview, Ministry of Foreign Affairs, March 2019).

In total, there were 11 interviewees who said that urgency was necessary for the nexus to get on the policy agenda. This is in line with previously made expectations and earlier findings. Policy makers have a certain set of tasks and specialisation in a particular policy field. They are occupied with the information and priorities that are relative to- and concerned with their tasks and specialisation. Consequently, they do not have time to extensively inform themselves with- or work on policy topics of the future, even though climate change is already an urgent phenomenon. Moreover, the Netherlands (as of yet) does not have to displace its inhabitants because of climate change. The fact that in other parts of the world this is already happening, does not matter for the daily work of policy makers in the Netherlands. Hence, no amount of time is being dedicated to designing a policy framework dealing with climate change and migration. Similarly, it was noted by various interviewees that the focus on migration only manifested itself within the ministries when the rise in asylum applications started to concern politics in 2015. The Migration Policy Office is an example of this, as it was set up during that period of political concern and concurrent sense of urgency.

Furthermore, the current asylum procedure of the Netherlands asks applicants about their experiences with the grounds of refuge, like prosecution because of religion or race. As such, it is not documented whether people are also fleeing due to climatological circumstances. This is logical, because these procedures are based on the Geneva Convention of 1951 and other (inter)national legislation concerning refugees. However, this means that the effects of climate change on people’s choice to move is currently not being documented in these work processes. Thereupon, it is currently impossible to detect, predict or analyse any impact of climate change on any of these choices.

Further analysing the interviews for possible knowledge utilisation, the interviewees were asked for their knowledge of important landmarks for the nexus, as established in the timeline in Chapter 4 and 5. They were asked about the following topics:

1. The IPCC Special Report of 1.5 degrees and its introduction named ‘Summary for Policymakers’.
2. The knowledge that is available on- and the existence of the website of the IOM MECC Division: the ‘Environmental Migration Portal’.
3. The existence of the UNFCCC and the Paris Agreement of 2015.
4. Claims about the nature of migration in relation to climate change and the environment:
    - migration is a common adaptive strategy

- migration decisions are complex
- migration is often a multi-causal phenomenon

When asked about the IPCC and its Special Report of 1.5 degrees including the Summary of Policymakers, 15 out of the total of 23 interviewees said they knew about the IPCC. It has to be noted that some only had heard of the IPCC and others, namely the interviewees working at the PBL and Ministry of Economic Affairs and Climate Policy, knew more extensively about their working processes and reports. A few interviewees had experience with the IPCC, including interviewees which were Contributing Lead Author of IPCC Reports or interviewees who attended meetings during which the Summary of Policymakers was voted on. This finding therefore corresponds with what was expected: the closer one is to the subject matter of the IPCC, such as employees of PBL, the more one is likely to know about it and its output. 12 Interviewees knew about the UNFCCC and the Katowice conference in 2018, which were often the same people who knew about the IPCC.

To a much lesser extent, interviewees (6) knew about the IOM MECC Division. This was also to be expected because the Division is doing work regarding this niche that is the nexus and therefore it was likely that only people interested in the nexus would know about it. More (total 12, including previous 6 interviewees had heard of IOM in general. The (academic) occupations of the ones who knew about the MECC Division all were in the policy field of migration and/or displacement. The other 6 interviewees were policy makers of the three nexus-relevant Ministries.

Remarkably, almost all interviewees (19) stated that they do see a relation between climate change and migration. Most say this is a direct relationship, yet some say it is indirect, or nuanced. Some noted that they were doubting about the existence of a relationship between climate change and migration (4). Again, others said that climate change can be the straw that breaks the camel's back. About half of the interviewees said that the relationship is hard to prove, which is consistent with the remaining discussions in the literature. At the same time, 11 people stated they were already seeing the effects of climate change on people's livelihoods. A large share (20) of the interviewees stated that the nexus is a very political topic. This was paralleled by the amount of people (16) that thought migration and climate change are complex problems and noted the multi-causality of migration.

These observations set the tone for the conclusions resulting from this analysis of policy actions that have happened regarding the nexus, as these illustrate the framework of thought that is currently present.

8. Conclusions

The main research question of this thesis is: *"What is the relation between knowledge and policy making regarding climate change and migration in the Netherlands and how can this be explained?'* From this main research question, multiple sub research questions were derived regarding the policy context, knowledge utilisation and knowledge production concerning the nexus of climate change and migration. Each of these sub research questions were answered in the previous chapters.

8.1 Conclusions

It was found that there is a community of researchers and policy makers which concern themselves with climate change and migration. Members of the community are well informed about each other's activities and often collaborate on projects that are aimed at extending and improving the knowledge present on the nexus. Therefore, it was concluded that we can speak of an epistemic community.

Although it was found that most policy actions related to the nexus are either located in the policy field of climate change or migration, the knowledge that is available on each separate topic is utilised differently. Concerning knowledge utilisation of knowledge on the nexus specifically, it turned out that this is often not utilised, at least not instrumentally. An example of this, is that there is no one employee or department present in any of the Ministries covered that is responsible for both climate change and migration. In addition, the collaborations between individuals that are concerned with either part of the nexus are occasional, merely on an informal basis and not institutionalised. This therefore eliminates the option of an instrumental knowledge utilisation result for the Netherlands concerning climate change and migration.

From the literature, although yet inconclusive, it appears that the relation between climate change and migration is a reciprocal one as both phenomena demonstrate an influencing force of one on the other. The relation between knowledge and policy making regarding climate change and migration in the Netherlands does not look similar to that. Knowledge on climate change and migration is available, although only present among a niche group of people and organisations who are often actually specialised in only one side of the nexus. Knowledge utilisation of knowledge on the nexus is basically non-existent, apart from people

realising that the two phenomena do affect each other to some extent. Moreover, policy making has been taking place in silos and does not reflect the synergy that is found between the two policy topics of migration and climate change as is presented in literature and research projects.

The reasons for this reside in the dynamics of policy making. Politics, for a large share, determines the course of policy action and therefore simultaneously establishes the framework of possibilities to utilise certain knowledge and take policy action regarding certain policy topics. As a derivative of this, urgency must thereby be included in the equation.

The uncertainty regarding migration issues sparked the urgency for constructing a Migration Policy Bureau within the Ministry of Foreign Affairs and the upsurge of knowledge utilisation regarding migration. The knowledge necessary was produced by relevant organisations, academics and research projects. Although there is uncertainty regarding the nexus and there is a supply of knowledge by the epistemic community concerning the nexus, the demand for knowledge is limited to what policy topics matter in the next 1-2 years. This is subject to judgement of the Dutch government and its partners. The nexus is not being experienced as an urgent policy topic right now, even though some interviewees said that perhaps it ought to be. As a consequence, this has had the effect non-utilisation of knowledge produced on the nexus.

Extensive policy formulation regarding the nexus has not started in any country in the world, even though you might argue the urgency level in some areas, like the Netherlands and the Pacific for example, is quite high, also compared to other countries (Thomas & Benjamin, 2017). A noticeable example of more instrumental knowledge utilisation is the Kiribati administration, which stated the importance of knowledge processes: ‘‘It is critical that ongoing effort is maintained in generating and providing new information to guide planning and implementation of CC and CCA activities”[49] (Office of Te Berentitenti, 2013, p.24). They recognise that knowledge needs “to be enhanced and maintained to better able planners, decision makers” (ibid) and are in this way promoting the instrumental kind of knowledge utilisation.

Gough and Shackley (2001) argued that NGO’s have become “partners in developing workable frameworks and principles for implementing actions” (p.329). This fits the analysis of, for instance, the IOM’s activities, which both produces policy briefs as well as knowledge on the nexus, whilst at the same time taking an activist position regarding the actions to aid

[49] CC is the abbreviation used for climate change, CCA for climate change adaptation.

refugees and other migrants. They therefore behave like a knowledge broker as defined in Chapter 2. PSI is an initiative in the Netherlands with similar characteristics. Likewise, this holds true for UN family members such as the IPCC and intergovernmental organisations, like the PDD. All of these actors therefore land in the upper area of the spectrum of knowledge actors.

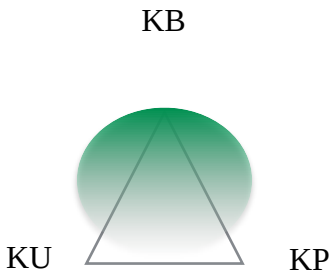

Fig. 20. Knowledge actors

In this thesis, it is argued that climate change and migration are interconnected and alternate roles concerning cause-effect; therefore, they both constitute as a driver of each other: climate change can be a driver of migration and migration can be a driver of climate change. Therefore, knowledge utilisation and knowledge production in the area of climate change and migration are of utmost importance to understand and constitute policy developments in this realm. One interviewee observed that the literature on climate change and migration has largely expanded since 2006 as well as an increase in the policy discussions (UNFCCC, interview, 2018). This interviewee also raised the importance of labels: “Just looking at the words that are chosen tells you so much”, “The reason why I say ‘people on the move’ is because there are tons of different words circulating and there a lots of different patterns and I am just trying to be really broad and capture all of them” (UNFCCC, interview, 2018). This was also noted by another interviewee, which stated that a lot of policy projects have been undertaken that do impact the effects of climate change and migration, however, they are just not labeled that way (interview, Ministry of Foreign Affairs, March 2019).

In the interviews with the policy makers of the various ministries, it became apparent that often they were only up to date with developments their own respective policy field but not so much with those regarding the other part of the nexus. This was partly to be expected because they are working in specific departments and ministries and are required to stay informed and expand their expertise in their respective policy field. There are no institutionally organised platforms where the nexus is discussed in the Netherlands. When policy makers of the different ministries and departments are in contact with one another, this is based on personal interest and incentive. The only inter-ministry connections that were found to be institutional were between knowledge brokers, such as the meeting between the Head of Strategy and Connection and this position’s counterparts in other ministries, or invoked by departments

that have the purpose of evaluating a certain ministry's policy like the Unit of Strategic Advice (ESA) of the Ministry of Foreign Affairs or the Policy and Operations Evaluation Department (IOB). Relations with academics and researchers were posed as sporadic. Researchers also stated that the times they were asked by policy makers to give a lecture, hold a discussion or review a document, this was an one-time instance and did not bear the promise of further collaboration.

This thesis has focused on policy development in response to the accumulation of knowledge on climate change and migration. Results of the document analysis and interviews show that most of the policy responses to migratory movement or climate change are addressed as separate phenomena. The academic research that is done on climate change and migration portrays connections between the two and knowledge on the climate change and migration nexus is available. Therefore, it must be concluded that the situation at this point in time does not qualify as an instance of instrumental knowledge utilisation. In that case, a department of a Ministry would have been founded that would have the inter-ministry goal of tending to climate change and migration issues, or a policy maker would have gotten the responsibility for the nexus.

8.2 Recommendations

One of the conclusions of Abel et al. (2019) was that "the connection of these two policy goals in the design of climate change responses at the global level" (p.247) is important. This is also the main recommendation made here, however arguing that is important for migration responses as well. Integrating the policy design of the two topics of climate change and migration as much as possible is expected to result in the most adequate resolutions. An integrated approach to both policy topics will thereby increase efficiency in policy actions. Keeping an interdisciplinary perspective and monitoring and evaluating developments regarding the nexus will create a better understanding of how to tackle issues that will present themselves. This means that inter-ministry connections have to be stimulated and that policy makers ought to look beyond their horizons- and if they cannot do this, there ought to be someone that does this for them and informs them about what has been found.

Additionally, a method ought to be developed to more consistently incorporate research findings in policy making, instead of solely employing the working group relations that currently exist. Following up on visits to- and from researchers is important to ensure research and policy increasingly align if necessary. This also means improving the "bridge between the culture of the academic community and the very different culture of the decision maker" (Barkenbus, 1998, p.2).

Moreover, I would urge future scholars to research the development of policy fields, as the question remains how certain topics that are being researched end up on the policy agenda and maintain interest in the policy realm beyond the sporadic instances of urgency. What is necessary to make sure that the world of policy makers and researchers is one where there is consensus?

Regarding the nexus, it is important to formulate key performance indicators and monitor these in the Netherlands. If questions regarding climate change and the environment were to be included in interviews with asylum applicants, this might shed some light on the extent to which people are on the move due to climate change as well as if they even reach the Netherlands or get stranded elsewhere. This may solidify that migration due to climate change is more likely to be internal displacement than international migration. Likewise, it is recommended to conduct more empirical research on the nexus, quantitative as well as qualitative, to establish the turning points in people's decisions to move and what role climate change plays in those decisions, in order to resolve the remaining ambiguity regarding the two topics' relation. This kind of research may also help the recommended formulation of policy regarding the nexus, as both migration and climate change will continue to be pressing issues in international politics and will not leave the stage any time soon. Acknowledging the urgency to form solutions regarding increased effects of the nexus, it is recommended to start policy formulation earlier than the moment of high urgency and relevance within 2 years that is currently the standard.

For all others involved in the epistemic community or other fields of policy making, it is recommended to follow developments regarding the nexus closely. Climate change and migration will both continue to affect our daily lives and it would therefore increase the adaptability of any person up to date with this knowledge.

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Appendix I Comparison Internet Inclusiveness and GDP per Capita in 2018

Internet Inclusiveness			GDP per Capita PPP $		
Rank		Score / 100	Rank		$
1	Sweden	89,9	1	Qatar	128,378.3
2	Singapore	89,1	2	Macao	115,123.1
3	United States	86,9	3	Luxembourg	103,744.8
4	Denmark	86,8	4	Singapore	93,905.4
5	South Korea	85,9	5	Brunei	78,836.1
6	France	85,4	6	Ireland	75,648.2
7	United Kingdom	85,3	7	United Arab Emirates	73,878.5
8	Chile	85,1	8	Kuwait	71,943.0
9	Poland	85,0	9	Switzerland	64,712.1
10	Canada	84,7	10	San Marino	62,425.6
11	Japan	84,0	11	Hong Kong	61,540.2
12	Germany	83,5	12	Norway	61,414.3
13	Spain	83,5	12	United States	59,531.7
14	Netherlands	83,4	14	Saudi Arabia	53,844.7
15	Austria	82,7	15	Iceland	53,152.7
16	Belgium	82,6	16	Netherlands	52,503.3
17	Bulgaria	82,4	17	Austria	52,397.8
18	Portugal	82,3	18	Denmark	51,364.1
19	Italy	81,1	19	Germany	50,638.9
20	Taiwan	81,1	20	Sweden	50,208.2

Countries ranking in the top 20 of both indexes: Sweden, Netherlands, United States, Singapore, Denmark, Germany and Austria.

Appendix II List of Interviewees

1	Ministry of Foreign Affairs, Migration Policy Bureau
2	Netherlands Environmental Assessment Agency, Department of Climate, Air and Energy
3	Platform on Disaster Displacement
4	Wageningen University, Department of Social Sciences
5	Ministry of Justice and Security, Team Strategy & Connection
6	Ministry of Foreign Affairs, Inclusive Green Growth Department
7	Ministry of Infrastructure & the Environment
8	Ministry of Foreign Affairs, Unit of Strategic Advice
9	United Nations Framework Convention for Climate Change
10	Clingendael Institute
11	Ministry of Infrastructure & the Environment
12	Ministry of Infrastructure & the Environment, Special Envoy
13	Ministry of Foreign Affairs, Special Envoy
14	Netherlands Environmental Assessment Agency, Department of Climate, Air and Energy
15	Ministry of Justice and Security, Team Strategy & Connection
16	Ministry of Foreign Affairs, Policy and Operation Evaluation Department
17	Ministry of Foreign Affairs, Inclusive Green Growth Department
18	University of Natural Resources and Life Sciences, Vienna
19	Ministry of Foreign Affairs, Department for Stabilisation and Humanitarian Aid
20	International Organisation for Migration, MECC Division
21	Clingendael Institute
22	Ministry of Justice and Security, Immigration and Naturalisation Service
23	International Organisation for Migration, GMDAC

Appendix III Interview questions

Actor information: Organisation and Researcher motivation

Can you tell me about your work: the organisation and your position?

Do you see a relation between migration and climate and climate change? Can you describe this relation?

Do you think this is a pressing issue?

What do you consider the most important organisations/research institutes/policy developments working on climate change/migration/nexus?

Epistemic community

Are there other people in your organisation working on the nexus?

Do you have relations with other individuals/organisations/networks/government bodies that are working on this issue?

What does your working relation with them look like?

Have you ever worked on climate change/migration/the nexus with people in Dutch government/international organisations/else?

Do you see your work influencing other work being done in this area?

The Netherlands

Are you in touch with policy makers or other policy makers at the Dutch government?

Who are they/which departments?

What does this relation look like?

Can you describe your working relation?

Working together on the nexus?

Knowledge utilisation functions

Do you think your research influences policy development in the Netherlands somehow?

Has your work been used as direct input for policy?

Do you think your work has had indirect influence on policy or initiatives?

Do you think your work has had an impact on policy or other initiatives?