

Leese, M. and Meisch, S. 2015. Securitising sustainability? Questioning the 'water, energy and food-security nexus'. Water Alternatives 8(1): 695-709



# Securitising Sustainability? Questioning the 'Water, Energy and Food-Security Nexus'

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**ABSTRACT:** The water, energy and food-security nexus approach put forward by the Bonn2011 Conference highlights the need for an integrative approach towards issues of water, energy and food, and puts them under a general framework of security. While acknowledging the need for urgent solutions in terms of sustainability, the nexus approach, at the same time, makes a normative claim to tackle the needs of the poorest parts of the world population. A closer look at the underlying rationales and proposed policy instruments, however, suggests that the primary scope of the conference proceedings is not a normative one, but one that reframes the conflict between distributional justice and the needs of the world economy under the paradigm of security. Reading this slightly shifted perspective through a Foucauldian lens, we propose that security is now put forward as the key mechanism to foster a new 'green' economy, and that the needs of the poorest are, if anything at all, a secondary effect of the proposed nexus approach.

**KEYWORDS:** sustainability, nexus, securitisation, green economy, development

## INTRODUCTION

As humanity is on track to cross planetary boundaries (Rockström et al., 2009; Evans and Reid, 2014: 142) and "consume the planet to excess" (Urry, 2010), activists, scientists, policy makers, economists, and many others have come to join forces in order to realise a more sustainable usage of natural resources. After all, so the bleak outlook, the survival of humanity at the very species level appears to be at stake. The water, energy and food-security nexus approach, as advanced by the Bonn2011 Conference (2012a, b; Hoff, 2011), attempts for a new perspective on problems of non-sustainable developments that have supposedly put humanity at the brink of extinction. While climate, water, food, and energy have often been dealt with separately, the nexus approach takes the leap to bundle these policy fields and to look for integrated solutions to problems that, by now, have been acknowledged to be inextricably interlinked. Moreover, and drawing on needs that have been highlighted nearly 35 years ago by the 'Brandt report' (Independent Commission on International Development Issues, 1980), followed by the 'Brundtland report' (United Nations, 1987), the nexus approach eventually proceeds to explicitly consider the needs of the world's poorest and thus apparently puts a clear-cut normative scope on the agenda of sustainable development politics.

However, as the notion of the nexus in parallel fashion links issues of sustainability to the security agenda, a series of conceptual challenges arises. Following Stern and Öjendal (2010: 11), a nexus "can be understood as a network of connections between disparate ideas, processes or objects; alluding to a

nexus implies an infinite number of possible linkages and relations". The reading we put forward here is one that conceives of security as the crucial link in the nexus approach. Thus, what happens if we think of water, food, and energy as reference objects for processes of 'securitisation' (Wæver, 1995), putting questions of sustainable development on the security agenda? This paper draws on work that has explored the overlaps of environmental issues and security, and seeks to retrace the political conception of non-sustainability as a security problem. Most notably, and building on Foucault's work that closely links security to the circulatory needs of the (neo)liberal project of a global economy (Foucault, 2008), we put forward a reading of the nexus approach that renders security/sustainability as a productive element within the assemblage of global flows of goods and people that is now being framed as *green economy*. This, in turn, raises questions about the presupposed normative impact of the Bonn2011 agenda. Does it really address the challenge to take into account the needs of the world's poorest, or does it not rather remain an economic project of scarcity management, traceable through its presupposed policy tools, that is now being pushed forward against the backdrop of scarcity issues that challenge the survival of mankind?

The paper proceeds as follows: the ensuing section retraces the political roots of the nexus approach and puts forward the question of what happens if we place water, energy and food under a general paradigm of security. We then pursue in detail the consequences of such a conceptualisation of the water, energy and food-security nexus in terms of securitisation, thereby locating the Bonn2011 policy agenda among current security discourses. The paper eventually concludes that we can indeed conceive of the nexus approach as a means of linking sustainable development to a Foucauldian reading of security as a precondition for economic processes – thus ultimately challenging the normative primacy of the project.

### BONN2011: INTRODUCING THE WATER, ENERGY AND FOOD-SECURITY NEXUS

In order to set up the analysis, we start by looking into the genealogical emergence of the water, energy and food-security nexus approach. In fact, an understanding that acknowledges the connectedness of issues that might be summarised under the paradigm of 'the environment' has been around for quite a while. Starting in the 1970s, researchers have linked matters such as climate change, the scarcity of resources and unsustainable consumption as an overarching threat to the ongoing existence of human life on earth (Meadows et al., 1972). But how come a 'nexus' approach eventually turns up at the top level of the political agenda only recently?

The water, energy and food-security nexus offers a distinctive, descriptive *and* prescriptive approach to present and future challenges of sustainable development. Starting from the assumption of a global crisis with regard to water, energy and food, it suggests solutions within "a green economy by increasing efficiency, reducing trade-offs, and building synergies across sectors" (Hoff, 2011: 4). The idea of the water, energy and food-security nexus evolved in the late 2000s and early 2010s. Within a couple of years, research reports, policy papers, and political and academic events pushed the approach onto the political agenda as well as the research agenda.<sup>1</sup> An initial impulse for the approach came from the '2030 Water Resources Group' (2030 WRG, 2009, 2012). Founded in 2008, it consisted of global players from the food and beverage industry such as the Barilla Group, Coca-Cola Company, Nestlé, SABMiller, PepsiCo, New Holland Agriculture, Standard Chartered Bank or Syngenta AG. Other partners of 2030 WRG are the World Wildlife Fund for Nature (WWF), the Global Green Growth Institute (3GI), the World Economic Forum (WEF), and the Global Water Partnership (GWP). It receives funding from multilateral development banks such as the World Bank, International Finance Corporation (IFC), and the Inter-American Development Bank (IADB), as well as from official

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<sup>1</sup> [www.water-energy-food.org](http://www.water-energy-food.org) (accessed on 18 September 2014)

development agencies such as the Swiss Agency for Development and Cooperation (SDC), the Swedish International Development Cooperation Agency (SIDA) and the United States Agency for International Development (USAID).<sup>2</sup>

Notably, the 2030 WRG has a distinct business profile. The group originally formed because its members regarded water scarcity as a global economic as well as a political threat,

because growing competition for scarce water resources is a growing business risk, a major economic threat that cannot be ignored, and a global priority that affects all sectors and regions. It is an issue that has real implications for the stability of the countries in which businesses operate and the sustainability of communities and the ecosystems they rely upon. Industries whose value chains are exposed to water scarcity face an immediate threat (2030 WRG, 2009: 24).

The 2030 WRG's main issue was the water security question of how to close the emerging gap between water supply and demand. In 2009, the group published a report entitled 'Charting Our Water Future: Economic frameworks to inform decision-making' (2030 WRG, 2009). This report made a case for water resource economics, different forms of water resources management, and stakeholder involvement – i.e. the private sector (agricultural producers and other agricultural value chain players, financial institutions, large industrial water users, technology providers, and the construction sector), and to a lesser degree (organised) civil society. It also put forward the idea of a water, energy and food-security nexus.

From 2007 on, and roughly at the same time as the formation of the 2030 WRG, the World Economic Forum served as the platform to promote issues of water security "with the intent to change the political economy of the water agenda, from mostly an MDG-related 'access' issue to an issue of 'access in the context of wider resource security and economic growth'" (2030 WRG, 2012: 18-9). In its subsequent activities, the World Economic Forum built on the analytical approaches from the 2030 WRG. In 2011, the World Economic Forum Water Initiative published a widely recognised report entitled 'Water security: the water-food-energy-climate nexus' (World Economic Forum Water Initiative, 2011) that pushed the issue on political and academic agendas, and subsequently many political events and research projects referred to the water, energy and food-security nexus approach (2030 WRG, 2012: 18-9) – most prominently the Bonn2011 conference under the headline 'The Water, Energy and Food-Security Nexus – Solutions for the Green Economy'. The German government (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety; Federal Ministry for Economic Cooperation and Development) in cooperation with the International Food Policy Research Institute (IFPRI), WEF, and WWF hosted the high-level event. In the context of the conference, the background paper 'Understanding the Nexus' (Hoff, 2011) was published and is now considered as a major reference point for the nexus debates. The report's development was coordinated and led by the Stockholm Environment Institute (SEI) and received contributions from the Food and Agriculture Organisation of the United Nations (FAO), the Stockholm International Water Institute (SIWI), The Energy and Resources Institute (TERI), the World Business Council for Sustainable Development (WBCSD), IFPRI, and WWF. The Bonn2011 conference also resulted in an online resource platform<sup>3</sup> – aiming at agenda setting – that presents documents, presentations, news, messages, and other information from various sources on the nexus and seeks to demonstrate the relevance of a nexus approach. The Bonn2011 conference served as Germany's contribution to the Rio+20 process, leading to the United Nations Conference on Sustainable Development (UNCSD) (20-22 June 2012). The results of the Bonn2011 conference were finally discussed in the event 'The Water, Energy and Food-Security

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<sup>2</sup> [www.2030wrg.org/who-we-are/partners/](http://www.2030wrg.org/who-we-are/partners/) (accessed on 18 September 2014)

<sup>3</sup> [www.water-energy-food.org/en/home.html](http://www.water-energy-food.org/en/home.html) (accessed on 18 September 2014)

Nexus in Practice – Make it happen!' (21 June 2012) within the UNCSD's conference theme 'Green Economy in the Context of Sustainable Development and Poverty Eradication'.<sup>4</sup>

At the same time, the water, energy and food-security nexus was discussed by state and research bodies dealing with (national) security issues (National Intelligence Council, 2012; Beisheim, 2013). In its report 'Global Trends 2030: Alternative Worlds', the US National Intelligence Council, a think tank within the US Intelligence Community, predicted "dire geopolitical, social, and economic repercussions" (National Intelligence Council, 2012: 34) if nexus management was not improved. Security agencies and security research bodies share the perspective that nexus-related issues are threats to global economy and (social) security.

The water, energy and food-security nexus approach also made a notable impact on academia, as it calls for a new research agenda that features a specific focus on cross-sectoral problems and solutions (Hoff, 2011; Stockholm International Water Institute and Elsevier, 2012; Beisheim, 2013; Davis et al., 2014). Nexus research can build on the prior works by many scholars worldwide (Hellegers et al., 2008; Hussey and Pittock, 2012). Primarily from the perspective of water sciences, they highlight the impacts of the food – and specifically the energy sector – on water, thus striving for a more prominent role of water issues in sustainability policies (e.g. Siddiqi and Anadon, 2011; Stillwell et al., 2011; Bazilian et al., 2011; Biggs et al., 2013; Pittock et al., 2013; Lele et al., 2013). Empirical case studies from regions all over the world have stressed interdependencies of the three sectors (e.g. Bach et al., 2012; Hermann et al., 2012; Granit et al., 2012; Stucki and Sojamo, 2012). Meanwhile, numerous researchers explicitly refer to the nexus approach brought forward by the Bonn2011 conference (e.g. Gulati et al., 2013; Lawford et al., 2013; Rasul, 2014). In fact, since 2011, numerous events and conferences have taken up the concept of the water, energy and food-security nexus, such as the International Conference on 'Water, Energy, Environment and Food nexus: Solutions and Adaptation under Changing Climate' (Lahore, 4-5 April 2012),<sup>5</sup> the 6th World Water Forum (Marseilles, 12-17 December 2012),<sup>6</sup> or the conference 'Sustainability in the Water-Energy-Food Nexus. Synergies and Tradeoffs: Governance and Tools at various Scales' organised by the Global Water System Project (GWSP) (Bonn, 19-20 May 2014).<sup>7</sup>

### **THE CONCEPT OF THE 'NEXUS'**

All nexus conceptions share general perceptions of present and future crises and offer solutions for more efficient resources management within a green economy, thereby specifically calling for integrated solutions with regard to water, energy and food. Perceptions of present crises comprise already depleted resources and destroyed ecosystems. The present critical state of environment and ecosystems is reflected in the concept of planetary boundaries (Rockström et al., 2009). At the same time, about one billion people worldwide do not have access to clean drinking water, 1.3 billion people do not have access to electricity, and more than one billion people suffer from hunger (Hoff, 2011: 15; World Economic Forum Water Initiative, 2011). Moreover, projected population growth will put further stress on resources and ecosystems. Expectations are that in 2030 the world population will consume about 30% more water, 40% more energy, and 50% more food than today. Regions already suffering from water scarcity will see their populations grow from 700 million people to about 3 billion by then – with a predicted overall population of up to 8.8 billion. Maybe most importantly, changing lifestyles of urban middle classes in developing countries will result in potentially more meat-based diets that require both more water and land for production (World Economic Forum Water Initiative, 2011: 20-23;

<sup>4</sup> [www.uncsd2012.org/index.php?page=view&type=13&nr=1050&menu=50](http://www.uncsd2012.org/index.php?page=view&type=13&nr=1050&menu=50) (accessed on 18 September 2014)

<sup>5</sup> [www.cevre.edu.pk/News%20%20Events/events.html](http://www.cevre.edu.pk/News%20%20Events/events.html) (accessed on 17 September 2014)

<sup>6</sup> [www.worldwaterforum6.org/en/library/detail/?tx\\_amswwfbd\\_pi2\[uid\]=601](http://www.worldwaterforum6.org/en/library/detail/?tx_amswwfbd_pi2[uid]=601) (accessed on 13 May 2014)

<sup>7</sup> <http://wef-conference.gwsp.org> (accessed on 13 May 2014)

National Intelligence Council, 2012: 33). Thus, urbanisation will put pressure on the water sector (supply, demand, waste water) and land for food (World Economic Forum Water Initiative, 2011: 111-16; Hoff, 2011: 7-8; National Intelligence Council, 2012: 27-30).

Apart from these challenges, climate change has long been identified as probably the largest threat to the continuation of our current status quo (Swyngedouw, 2010; Methmann and Rothe, 2012). On top of anthropogenic stress factors, global warming will adversely affect the water, energy and food sectors, respectively (Bals et al., 2008; Hoff, 2011: 32; National Intelligence Council, 2012: 31-5). Mitigation and adaption to climate change will then interact, and impinge on water, energy and food. Water affects food production (e.g. agriculture, aquaculture, animal husbandry) as well as energy production (e.g. hydropower, cooling water). Energy affects not only food production (e.g. energy for chemical and mineral fertilisers, transportation, storage of food), but also water supply (e.g. water preparation, desalination, pumping). Hydraulic fracturing requires huge amounts of water and threatens to pollute groundwater. Food and energy production interfere with each other when power plants replace food plantations and lead to increased food prices (Hoff, 2011: 32; World Economic Forum Water Initiative, 2011: 10-11; National Intelligence Council, 2012: 37). Thus, we are strongly urged to change our lifestyle – and on a global scale. If no action is undertaken right now, according to the general notion, we will soon be facing all-encompassing geopolitical conflicts that will threaten national securities, the global economy, and peace in countries unable to adapt (2030 WRG, 2012; National Intelligence Council, 2012; Beisheim, 2013). Commentators in the World Economic Forum Water Initiative (World Economic Forum Water Initiative, 2011: 3-4) placed

their concerns not in terms of poverty and social justice alone, but also within a wider geopolitical and political-economic context: water security is arguably the arriviste issue in national security and global affairs. (...) In the fast-changing world we can see stretching out to 2030, it is increasingly clear that our political, economic, and social stability into the 21st century will depend as much on how we manage our freshwater resources as it will on any of the other well-recognized 'hard power', global security issues of the 20th century, such as terrorism, nuclear proliferation, and fossil-fuel security.

From a human development perspective, Hoff (2011: 11) distinguishes the different types of (in)security that are incorporated in a nexus reading. Water security is understood as the availability of, and access to, water for human and ecosystem uses. In line with the UN Secretary General's Advisory Group on Energy and Climate Change (AGECC, 2010: 13), energy security is defined as "access to clean, reliable and affordable energy services for cooking and heating, lighting, communications and productive uses". According to the FAO, food security "exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (FAO, 2009). All reports share the common understanding that problems can be managed and solutions are possible. The Bonn2011 conference, for instance, specifically aimed to explore "*how* a nexus approach can enhance water, energy and food security by increasing efficiency, reducing trade-offs, building synergies and improving governance across sectors" (Hoff, 2011: 4; emphasis added). There seems to be no doubt in terms of the *if*, but only a question in terms of *how* the crisis can (and eventually will) be solved. Other reports are to the same extent confident about the manageability of the crisis (e.g. 2030 WRG, 2009: 6).

Such manageability is envisaged through a toolbox that consists of improved risk assessment, increasing resource productivity, better governance and policy coherence, and the development and application of technical solutions, and, most notably, the creation of a green economy (2030 WRG, 2009; Bonn2011 Conference, 2012a; National Intelligence Council, 2012; Beisheim, 2013). As a basis for an informed risk assessment, more and different data, and analytics as well as pooling at the UN level are called for, with a proposed Intergovernmental Panel on Global Sustainability collecting and analysing data, and performing impact assessments that would evaluate policies with regard to their impact on the water, energy and food-security nexus. On all scales, achieving policy coherence and the

reduction of unintended consequences are set to be achieved through increasing performances within all three sectors, and at the same time creating cross-sectoral horizontal synergies and vertical synergies between different levels (international, national, regional, local), but also across administrative boundaries (basin-wide, trans-boundary).

The idea of 'nexus mainstreaming' argues along the same lines. In the face of decreasing resources, increased resource productivity is deemed the solution, e.g. by using waste as a resource in multi-use systems or setting economic incentives for efficient usage. At the same time, technological solutions such as genetically modified crops, transgenic technologies, automation of agriculture or micro-irrigation technologies appear as some sort of silver bullet to nexus challenges. Reports agree that further integration of economic approaches to resource management and green growth would greatly contribute to solving the predominant challenge of resource scarcity. However, the different notions of economy differ in their various degrees of being *green*. Some mention green growth (2030 WRG, 2012) or a green economy (Hoff, 2011; Bonn2011 Conference, 2012a; Beisheim, 2013), while others do not refer to either of the two (2030 WRG, 2009; National Intelligence Council, 2012).

A nexus approach also contributed to the emergence of a specific research agenda (Hoff, 2011: 34-35; Beisheim, 2013: 8-9; Davis et al., 2014). Nexus analyses, so the general notion, need to bridge the knowledge gaps on interactions between water, energy and food, and contribute to resource efficiency and waste reduction. Apart from taking into account the relevance of resources for human systems, nexus research would also need to consider the relevance of these resources within ecosystems. Along with cross-sectoral interactions, nexus analyses then need to examine how systems interact across scales, and account for the role of factors such as political and social structures, governance, and trade. Moreover, interactions with other resource management concepts such as the Integrated Water Resources Management (IWRM) would need to be explored. In order to create an impact on policy and practice, nexus research would necessarily have to interact with stakeholders head-to-head. While some nexus problems might be framed as positive-sum games, others might not. However, trade-offs are related to value judgments that necessarily need to be made transparent. Nexus conceptions touch upon many crucial issues of sustainable development already discussed in seminal reports such as the 'Brandt report' (Independent Commission on International Development Issues, 1980), the 'Brundtland report' (United Nations, 1987), or the Rio Declaration on Environment and Development (United Nations, 1992).

As has been outlined, there have been multiple claims to tackle environmental issues and security within a framework that acknowledges their interconnectedness. However, we seek to explore a different register of this more recent emphasis on a 'nexus': the effects of reframing sustainable development under the paradigm of security.

### **THE NEXUS AS A SECURITY PROBLEM**

While the last section has retraced the emergence of a nexus approach to food, water and energy, and its emphasis *on* security, this section will explore what it actually means to render food, water and energy *in terms of* security. We put forward the notion here that securitisation theory (Wæver, 1995; Bigo, 2002) can contribute to an understanding of this notion, especially when taking into account Foucault's (2007, 2008) work on the inextricable link between security and the economy. Starting from the constructivist reading of security that was put forward by Wæver (Wæver, 1995; Buzan et al., 1998), security comes into being as something that emerges from threat. As Anderson (2010: 228) frames it, "security and securing are both dependent on nonexistent phenomena – threats and promises". Where threat hitherto was conceived of primarily as military capacities of states, the constructivist turn in security studies introduced an understanding that threats as such must not necessarily take on a material form, but can emerge through discursive formations. Put simply: threats are constructed and/or acknowledged as such through speech acts. This must not be misunderstood as

a statement about the materiality of the threat itself, but as the political perception of something as a threat. Put differently: risks that have always been inherent to everyday life, and that we pay no particular attention to, can be lifted to the state of acute, existential threats that must be dealt with swiftly and decisively.

Securitisation theory is not so much interested in the nature of the threat itself, but in its transformation on the political level. As such, it asks the question "what really makes something a security problem?" (Wæver, 1995: 54), focusing on the performative nature of security. Such a reading proposes a conceptualisation of security that presents itself as flexible, fluid, and possibly all-encompassing, as it depends on the prevalent political discourse. In fact, as Guzzini (2011: 330) points out, in this vein "security is understood not through its substance but through its performance". Thus, such a perspective can particularly well account for the acknowledgement of resource scarcity as a threat to the security (read: survival) of mankind once planetary boundaries have been crossed. As indicated above, literature on the water, energy and food-security nexus proposes to treat the current lack of sustainability as a threat, and subsequently to put the nexus on the security agenda, whereas earlier it was a matter of rather ordinary politics. As has been shown in the previous sections, the nexus approach highlights the need for a coordinated cross-sectoral response on all levels. The increasing scarcity of life-supporting resources (i.e. water, energy and food) produces a threat scenario that could possibly unhinge human existence at the very species level and as such has apparently moved water, energy and food politics from the realm of normalcy to a realm of emergency – thus enabling mechanisms that intend to swiftly counter, or at least mitigate, this increasing level of scarcity.

In fact, as the Bonn2011 policy recommendations point out, "the world is reaching, and in some cases has already exceeded, the sustainable limit of resource availability and is at risk to trespass planetary boundaries" (Bonn2011 Conference, 2012a: 2). As Evans and Reid (2014: 142) explain in more detail,

if contemporary science is to be believed, we have already crossed at least three and are near to crossing as many as nine 'planetary boundaries': climate change, species extinction, the disruption of the nitrogen-phosphorus cycles, ocean acidification, ozone depletion, freshwater usage, land cover change, aerosol loading, and chemical use.

Such planetary boundaries are ultimately material, but only through discourse have they ended up as a threat that is now dealt with under the paradigm of security. Today's prevalent position is one that rarely questions the existence of resource scarcity as a major challenge for future human endeavours of survival.

Independent of the duration of its existence and its actual acknowledgement as a security issue, the threat, according to the different nexus conceptions, is imminent – and so is the subsequent pressure to securitise water, energy and food. If not for an immediate effort to sustain the grounds of human existence, there would soon be nothing left to secure, so the argument goes. But how to deal with a threat that, unlike terrorism or transnational crime, which have dominated the post-9/11 security agenda, does not manifest as an external or internal enemy, but that comes into being through our own acts? How to deal with a threat that cannot simply be identified and arrested? How to deal with a phenomenon that, in the worst case, may not even be stopped anymore, but merely postponed in its inevitable course that is already on the way? As Huysmans (2008: 175) drastically puts it, what we are facing then is an "apocalyptic political vision in which not fear of the enemy but the collapse of order into anomic, self-referential life is the defining principle of politics".

We suggest here that the underlying notion of the nexus is one that renders security not so much in terms of exceptional measures to counter an exceptional state, but rather in a fashion that strives to manage and mitigate this exceptional state, and as such is strongly linked to a presupposed 'green economy'. As Hoff (2011: 11) states, "while water, energy and food security have so far been mainly constrained by unequal access, humanity is now also approaching limits in global resource availability

and sink strength, such as phosphorus supply or atmospheric CO<sub>2</sub> concentration". What was once framed as a matter of distributional justice and access (Dobson, 2009; Ott, 2009, 2014), and as such within the scope of regular politics, has now become a matter of survival for all of humanity that calls for utmost immediacy. Or, as Reid (2013: 354) claims,

proponents have been concerned with the problematic of shifting the focus of development not simply from the economy to a wider understanding of human well-being, but from the development of human life to the non-human 'life support systems' which peoples are said to depend on in order to live well and prosper.

The problem is in fact a very basic one: if we continue our contemporary lifestyle, humanity will vanish in the foreseeable future. But why is it that the nexus approach only now proposes a seemingly novel strategy to tackle such scenarios? Put differently: what are the processes that have empowered the nexus approach on the political level such that water, energy and food eventually became issues of securitisation? In order to analyse this question, we propose to turn to a Foucauldian reading of the concept of security.

## SECURITY AND THE ECONOMY

In his lectures at the Collège de France in Paris in the late 1970s, Foucault (2003, 2007, 2008) has genealogically retraced the emergence of security through its historical occurrences. Contemporary security, as he argues, evolved primarily around the central question of circulation. As power, and subsequently government, has transformed from a disciplinary project that targets the individual, to an open, space-less form that targets the population as a whole, and that is no longer delimited by national boundaries, but thrives on the global condition of modernity, the problem of security is "no longer that of fixing and demarcating the territory, but of allowing circulations to take place, of controlling them, sifting the good and the bad, ensuring that things are always in movement, constantly moving around, continually going from one point to another, but in such a way that the inherent dangers of this circulation are cancelled out" (Foucault, 2007: 65). Questions of government, subsequently, take on a form of political economy that operates through rationalised analytics for the sake of the production of wealth and prosperity (Foucault, 2008). What Foucault deemed the *birth of biopolitics* is indeed the establishment of a strong linkage between security as a technique of government and the notion of global economic flows that become empowered through security. In Amoore's (2013: 15) terms, "economy is used here in its broadest sense, as a means of rendering mobile and circulating things, people, money, and objects calculable, knowable, and, therefore, governable" – or, as Dillon (2008: 319) frames the issue, "the pursuit of profit may assist the securing of governance. The securing of governance may assist the pursuit of profit".

The Foucauldian notion of security governance is one that takes species existence itself as its level of reference, and in which "power comes to strategise human being politically as species being" (Dillon and Lobo-Guerrero, 2008: 266). As Bigo (2008: 97) puts it, now "security is the product of a dynamic of openness and freedom. The appearance of security is a correlate of liberal economy and society". The apparatus that Foucault calls security is one that empowers the economy through global circulations of goods and people, while at the same time measuring, commodifying, and calculating such flows for the sake of cancelling out threats that are now framed in terms of risks that derive directly from statistics and large-scale data. The circulation itself must never stop, for such a halt would disrupt the continuity of global productivity, and subsequently the creation of wealth. Security, in this vein, is not the opposite of liberty. On the contrary, liberty is now both the precondition for security and security is the mechanism on which such liberty thrives. As Foucault (2007: 48) has prominently put it, "freedom is nothing else but the correlative of the deployment of apparatuses of security".

This form of freedom is necessarily a heavily regulated one, however. It is only through the fostering of constant circulation that apparatuses of security can create knowledge about threats in the first place, as the turn to openness relies on the emergence of a powerful statistical risk calculus. As Dillon and Lobo-Guerrero (2008: 268) put it, "circulation is concerned with flows, but flows have to be monitored and regulated". As a consequence, "security becomes digital and follows up traces left by everything which moves (products, information, capital, humanity)" (Bigo, 2008: 109). What has been identified as the basic means of the notion of contemporary surveillance (Haggerty and Ericson, 2000), is of course analogous to managerial practices, both in the realm of the economy and in security practices, and, as has been pointed out in the previous section, becomes mirrored in the managerialisation of the nexus itself. As humanity runs the risk of extinction, risk at the same time must be regarded as both a business opportunity as well as a mechanism that "makes contingency fungible and commodifies the exposure to danger and opportunity for advantage which, together, now describe what risk is" (Dillon, 2010: 64).

In other words, a nexus approach, through the appropriation of security, can be turned into a business opportunity. Not too surprisingly then, when read through such a Foucauldian lens, the Bonn2011 policy recommendations (in line with earlier nexus reports) turn to the economy. The *green* economy, that is, which is now envisaged to operate under the paradigm of security. And in order to foster this economy, an all-encompassing and rationalised approach to the problems at hand is sought. As stated by the conference synopsis, "research, knowledge and data must be created and communicated, and better measures to monitor and evaluate nexus outcomes and results must be developed and/or enhanced" (Bonn2011 Conference, 2012b: 24), while at the same time there is a need to "establish monitoring systems to comprehensively track and monitor food security, water, energy and carbon movements and nexus indicators so policy development is based on sound evidence" (Bonn2011 Conference, 2012a: 19). Thus, water, energy and food are to be commodified in order to provide a harnessed and manageable basis for the green economy/security (National Intelligence Council, 2012; 2030 WRG, 2009). After all, as Anderson (2012: 34) argues, "as production extends to all of life, all of life must be secured to ensure 'good' circulations amid threats that are imminent to life". And the threats, as has been laid out, indeed appear to be imminent to our lives.

As such, a turn to neoliberal modes of global circulation of goods and people for the benefit of the economy is anything but new when it comes to matters of sustainable development. As Reid (2013: 354) notes, "sustainable development and neoliberalism are not the same, nor is the former simply a proxy of the latter, but they do come into contact powerfully on the terrains of their rationalities of security". After all, problems of scarcity have long been acknowledged by said neoliberal agenda, and a simple solution has been assigned: "enclosure and the assignment of private property rights is considered the best way to protect against the so-called 'tragedy of the commons' (the tendency for individuals to irresponsibly super-exploit common property resources such as land and water)" (Harvey, 2005: 65). But by now, as it appears that scarcity has crossed the threshold to becoming a threat for our very existence, questions of access and property no longer seem sufficient. As we put forward here, the security agenda offers a plateau to come to terms with the presupposed new dynamic of threat. As Anderson (2012: 33) puts it, in fact "events ranging from terrorism to climate change have been governed as economic emergencies, which threaten to interrupt productive activity". This general scope can not only be witnessed by the Bonn2011 policy agenda, but more broadly by attempts to govern resource scarcities. As the 2030 WRG (2012: 18-9) states, "with the intent to change the political economy of the water agenda, from mostly an MDG-related 'access' issue to an issue of 'access in the context of wider resource security and economic growth'", the new agenda of sustainability can be neatly summarised. The Bonn2011 conference builds on this very shift to questions of the economy, as, after all, "business is essential for driving change and getting to scale, so the business case for sustainability must be clearly and forcibly made" (Bonn2011 Conference, 2012b: 24).

Thus, what are the techniques to be applied to prevent both the extinction of humanity *and* a decline of the economy? As Hoff (2011: 12) points out, "there is a need for a coordinated and harmonized nexus knowledge-base and database indicators and metrics that cover all relevant spatial and temporal scales and planning horizons". A closer look at the proposed measures in the nexus reports, as has been shown above, reveals that the nexus is in fact conceived of as something that is very much manageable, even if planetary boundaries have already been crossed (2030 WRG, 2009: 6; Hoff, 2011: 4). What at first sight might look like a desperate attempt to render something actionable that has long escaped the grip of human agency, ultimately unveils a neoliberal scope on processes of rationalisation, risk analysis, and management in a global (green) economy that is now framed both as the solution for pressing security threats *and* global injustice. But does it really tackle the problems of the poorest of the poor, as heralded by the nexus approach? Or is it not rather the case that water, energy and food have been placed on top of the security agenda in order to push forward solutions to economic pressures, while leaving distributional justice a secondary, yet very much desirable side-effect? As Urry (2010: 192) argues, "the sorcerer of contemporary capitalism has indeed generated major emergent contradictions", and one of them, so we claim, is the nexus agenda. After all, as Reid (2013: 365) puts forward, "while sustainable development deploys ecological reason to argue for the need to secure the life of the biosphere, neoliberalism prescribes economy as the very means of that security".

### **FROM DISTRIBUTIONAL JUSTICE TO SECURITISATION?**

Thus, are we in fact witnessing a turn on the sustainability agenda away from questions of distributional justice and towards questions of security? In order to better understand the processes of securitisation that can be found in the nexus approach, we suggest to turn to the so-called Paris school that evolved around the writings of Bigo (Bigo, 2001, 2002; Bigo and Walker, 2007; Bigo and Tsoukala, 2008). Influenced by the works of Foucault and Bourdieu, Bigo proposes an understanding of securitisation processes that extends beyond the notions of urgency and political exceptionalism. While some authors have not completely dismissed the discursive construction of threat levels (for an overview, see Wæver, 2004), most Paris school scholars start from the notion that not all involved rationalities are represented within the public arena. On the contrary, powerful agenda-setters such as police forces, security experts, and bureaucracies seldom make *public* contributions to the construction/acknowledgement of threats (Bigo, 1994, 2002). Such actors rather propose that issues be quietly and bureaucratically conceptualised as threats based on professional long-term expertise and accumulated knowledge. Put simply: security professionals are seen as 'managers of unease' that contribute to the emergence of the security agenda through everyday routines and practices that almost never surface on the public level.

In terms of the nexus, we put forward the notion that while unsustainable development has been identified as the imminent threat that legitimises urgent action, the concrete measures appear to be determined by expert networks that pursue their specific and particular rationalities that now incorporate sustainability as the determining theme for a new and green economy (2030 WRG, 2009; World Economic Forum Water Initiative, 2011). As Reid (2013: 354) has compellingly argued, "economic reason is conceived within neoliberalism as a servant of ecological reason, claiming to secure life from economy through a promotion of the capacities of life for economy. This is the paradoxical foundation on which neoliberalism has constructed its appropriation of sustainable development". Such a reading of securitisation processes entails a slightly shifted scope when it comes to the concrete techniques that are used to govern security. As Bigo (2002: 73) puts it, "securitization works through everyday technologies, through the effects of power that are continuous rather than exceptional, through political struggles, and especially through institutional competition within the professional security field in which the most trivial interests are at stake".

It is exactly this continuity that must be preserved, and which, so we argue, the nexus approach primarily aims at. After all, if resources that support production are not immediately rendered secure, then "the overall consequences of such unique changes will substantially reduce the standard of living" (Urry, 2010: 195). Huysmans (2011) suggests that securitisation processes can indeed be performed by "little security nothings" – mundane processes that might not be perceived as a big deal, or might not even be related to security at all, "such as programming algorithms, routine collection of data and looking at CCTV footage" (Huysmans, 2011: 372). As Balzacq et al. (2010) summarise the issue, what defines the analytical scope of such a sociologically coined variant of securitisation theory is a "kaleidoscope of practices non-reducible to a core meaning or/and a linguistic formulation". We propose that the proceedings of the nexus approach should be conceived as such a formation of mundane, day-to-day managerial practices that do not strive to create an exceptional realm but rather build on 'standard' economic means, arguing for instance that "constraints on a valuable resource should draw new investment and prompt policies to increase productivity of demand and augment supply" (2030 WRG, 2009: 4) – both in the name of security and for the sake of security. This subtle turn produces in fact a crucial argument that could only be made once sustainability had been securitised. This argument, plain and simple, goes: now we have to produce security *through* the economy, and as such the survival of the economy must no longer be questioned.

## CONCLUSIONS

This paper has retraced the emergence of a nexus concept that now links water, energy and food under the paradigm of security, and that has been put forward prominently by the Bonn2011 agenda. We have opted to explore the consequences that arise from this new frame of security – one that has been fostered by the crossing of planetary boundaries and that constructs a bleak horizon of threat on the species level – through the notion of the economy itself. Thus, we have argued that, whereas sustainability was until recently predominantly framed as a matter of distributional justice, it is now being transformed into a priority for survival. The analysis of the political choices, however, reveals that the agenda that was created by the nexus approach still very much remains one that is driven by economic choices. It is a new form of economy, however – one that is now advertised as the green choice that helps us to survive, while at the same time keeping the global machine of productivity going. Thus, so we argue, we are witnessing a double twist in the politics of sustainability: For one, an element of emergency action was introduced through the reframing of resource scarcity as an existential threat. And second, the proposed instruments still cling to a neoliberal economic agenda – only that it now becomes propelled through the green rationale that appears crucial for our survival as mankind.

In this vein, we have proposed a Foucauldian interpretation of security, which then becomes strongly linked to the management of de-territorialised, boundary-less and global flows of people and goods. Security, conceived through this lens, produces freedom and openness, and empowers modern economic principles. However, from such a standpoint, the normative scope of the Bonn2011 agenda appears at least questionable in its proposed primacy. From a nexus perspective, is it really "the first imperative... to achieve water, energy and food security for the poorest of the poor" (Bonn2011 Conference, 2012a: 1), as has prominently been postulated? Or does it not rather appear as a clinging to the preservation of our modern, industrialised lifestyle despite dwindling resources? As a measure to preserve the prerequisites of (Northern) production cycles, only that now everybody wins since we are *forced* to become sustainable? Only that the consequences of the decline have long been witnessed in other parts of the world, as "the capabilities of life around the world and overall population as catastrophic impacts begin, starting off in the 'poor' and less resilient South" (Urry, 2010: 195)?

We are not, after all, questioning the potential benefits of an approach that aims to minimise negative spill-overs, and to enhance positive synergies of integrated policies with regard to water,

energy and food. Parts of the global population could eventually benefit from such a holistic concept. However, we seek to challenge its presupposed normative motivations that appear as mere lip service when measured against the backdrop of economic rationalities, as well as the mechanisms that have been put to use in order to place it at the top of the sustainability agenda. As we have argued, conceptualising the nexus as a securitisation process through managerialisation allows us to understand why water, energy and food have now been framed under the urgent paradigm of security, instead of earlier discourses of distributional justice. One must, however, dare to ask what is really at stake in terms of the water, energy and food-security nexus. Is it survival of mankind or is it the preservation of current economic setups?

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