

Contents

List of Figures, Graphs and Tables	4
List of Abbreviations	5
1. Introduction	6
2. The International Norm Context	9
2.1. Definition of a Norm	9
2.2. The Norm of Sustainability	1
2.3. International Relations Theories and Norms	1
2.4. The Life Cycle of a Norm and the Ecological Footprint	1
3. Operationalizing the Norm of Sustainability:	
The Ecological Footprint	1
3.1. The Notion of Sustainability behind the Ecological Footprint	1
3.2. Sustainability Issues that the Ecological Footprint cannot address_	2
3.3. The Ecological Footprint and Climate Change	2
3.4. The Ecological Footprint and Human Development	2
3.5. Which Norms matter under what Conditions?	2
4. Norm Entrepreneurs	3
4.1. Definition	3
4.2. Organizational Platforms	3
4.3. Epistemic Communities	3
4.4. Global Footprint Network	3
4.4.1. Organizational Structure, Status and Sources of Income	3
4.4.2. Identities and Roles of Global Footprint Network	3
4.4.2.1. Information and Interpretation of Science	3
4.4.2.2. Convening Power	3

5. Promoting the Norm of Sustainability	38
5.1. Norm Tipping Points and Critical States	39
5.2. Communications Strategies of Global Footprint Network	41
5.2.1. Top-Down	42
5.2.2. Bottom-Up	44
5.2.3. Buzz	45
5.3. The Logics of Shaming, Blaming and Framing	45
6. Persuasive Discourses	50
6.1. Global Footprint Network's Discourse on Sustainability	51
6.2. Persuasion	54
7. The "Ecological Creditor Initiative"	56
7.1. Initial Goals and Strategies, first Steps	57
7.2. New Alliances – Convening States	60
7.3. Reframing	61
8. Conclusion	63
9. Bibliography	66
10. Appendix	73

List of Figures, Graphs and Tables

Figure 1: Norm Life Cycle, Finnemore and Sikkink 1998	15
Graph 1: Overshoot Graph, 2005, GFN	18
Graph 2 : Humanity's Ecological Footprint, 2005, GFN	24
Graph 3 : Human Development and the Ecological Footprint, 2005, GFN	27
Table 1: Stages of Norms, Finnemore and Sikkink 1998	40
Graph 4: The Footprint of Nations, 2005, GFN	46
Graph 5 : Ecological Creditor and Debtor Nations Map, 2005, GFN	_47

All graphs courteously provided by Global Footprint Network (GFN).

List of Abbreviations

BP British Petroleum

CAN Community of Andean Nations

CBD Convention on Biological Diversity

CNN Cable News Network

CO2 Carbon Dioxide (Emissions)

EU European Union

GDP Gross Domestic Product

GFN Global Footprint Network

GTZ Deutsche Gesellschaft für Technische Zusammenarbeit

HDI Human Development Index

HPI Happy Planet Index

IGO Intergovernmental Organization

IPCC Intergovernmental Panel on Climate Change

NATO North Atlantic Treaty Organization

NEF New Economics Foundation

NGO Non-Governmental Organization

OECD Organization for Economic Co-operation and

Development

PSR Pressure-State-Response

UK United Kingdom

UN Comtrade United Nations Commodity Trade Statistics Database

UNESCO United Nations Educational, Scientific and Cultural

Organization

UN FAOSTAT United Nations Food and Agriculture Organization

Statistics Database

UN(O) United Nations (Organization)

UN REDD United Nations Collaborative Programme on Reducing

Emissions from Deforestation and Forest Degradation in

Developing Countries

US United States

WWF World Wildlife Fund

1. Introduction

"It is time for a revolution. A new industrial revolution, that of sustainable development, lies before us." 1

Jacques Chirac

The idea of sustainable development entered the international political sphere with the report of the UN Brundtland Commission in 1987. It is generally understood as a development that "meets the needs of the present without compromising the ability of future generations to meet their own needs." Despite the twenty-two year long international dialogue around sustainability, its meaning has remained vague and opaque. Some environmental experts even refrain from using the term because it has been applied in contradictory and ambiguous ways. The norm of sustainability has found its way into international declarations, most prominently the Rio Declaration on Sustainable Development in 2002, into national constitutions like that of Switzerland, government whitebooks and regional planning policies. Nevertheless, it has not reached the stage of an internationally prescriptive norm, which sets binding standards for appropriate behavior of actors across all areas of life, most importantly the realm of economic development.

The study of norms in International Relations theories has been put forward mostly by social constructivist research agendas, which assume that norms lie behind actors' preferences and interests. As collective rules for behavior for actors with a given identity, they give the world structure, but are hard to observe and study. Martha Finnemore and Kathryn Sikkink elaborated a life cycle model of norm emergence, norm acceptance and

¹ Speech by M. Jacques Chirac, President of the Republic, on the occasion of the "Citizens of the Earth" Conference for Global Ecological Governance, Paris, 2 February 2007, cited in Global Footprint Network (2009), Annual Report 2008, Oakland: Global Footprint Network. Available at: http://www.footprintnetwork.org/en/index.php/GFN/page/publications/, p. 13.

² As cited in: Christine Ingebritsen (2002), Norm entrepreneurs: Scandinavia's Role in World Politics, in: Cooperation and Conflict, 37:1, p. 15.

³ A. H. T. Fergus and J. I. A. Rowney (2005), Sustainable development: Lost Meaning and Opportunity? in: Journal of Business Ethics, 60:1, p. 21.

⁴ Helmut Breitmeier (2008), The Legitimacy of International Regimes, Surrey: Ashgate Publishing Limited, p. 39.

⁵ Cp. Martha Finnemore and Kathryn Sikkink (1998), International Norm Dynamics and Political Change, in: International Organization 52:4, p. 887.

norm internalization, which identifies different mechanisms and crucial actors for different stages in the evolution of a norm. For the first phase in the life cycle, norm emergence, which the norm of sustainability is currently in, they underscore the enormous importance of norm entrepreneurs - individuals, NGOs, states or international organizations which actively promote a norm and seek initial acceptance for the norm. Global Footprint Network, an environmental think tank with a world-wide research network, can be considered such a norm entrepreneur for the norm of sustainability. Global Footprint Network aims to specify and disseminate the norm of sustainability by developing the Ecological Footprint, a scientific research and accounting tool that measures how many natural resources and services we have and how many we consume. The following mission statement describes the motivation behind Global Footprint Network's activities:

"By making ecological limits central to decision-making, we are working to end overshoot and create a society where all people can live well, within the means of one planet."

The work of Global Footprint Network serves two superior goals: (1) the operationalization of the norm of sustainability by advancing the Ecological Footprint, (2) the promotion of the norm of sustainability by shifting the international dialogue towards One-Planet-Living and helping decision-makers on all levels to institutionalize the Ecological Footprint as the dominant yard-stick for societal decisions. As an epistemic community, Global Footprint Network provides expert knowledge for decision-makers in uncertain times and opens up forums for the discussion of ecological limits.

My paper is interested in the question of how Global Footprint Network advances the norm of sustainability. This bears relevance for the theoretical debate about the emergence of norms and practical implications for the work of Global Footprint Network. By combining International Relations norms theories and empirical observations gained in a three-month research internship with Global Footprint Network, I hope to shed new light on the emergence of the contested norm of sustainability and its norm promotion by Global Footprint Network.

The approach of this paper is explorative in its direct access to norm diffusion

⁶ http://www.footprintnetwork.org/en/index.php/GFN/

activities of a norm entrepreneur and interweaving theoretical concepts and empirical insights. This study is structured along the two basic research questions about the operationalization and promotion of the norm of sustainability by Global Footprint Network. Chapter 2 sets the context for the study of norms in International Relations theory, its definition and importance in the social constructivist research paradigm, and looks at the emergence of the norm of sustainability on a global level. Finnemore and Sikkink's concept of the life cycle of a norm is elaborated upon and related to the concept of the Ecological Footprint. Chapter 3 analyzes the suitability of the Ecological Footprint as an indicator for sustainability and looks at its basic research question, general assumptions and links to climate change and human development. Chapter 4 explains the theoretical concept of norm entrepreneurs and epistemic communities and presents Global Footprint Network as an example of these. Chapter 5 explores how Global Footprint Network promotes the norm of sustainability, the communications strategies it applies and the theoretical approach to shaming, blaming and framing activities in International Relations theories. Chapter 6 looks at Global Footprint Network's discourse on sustainability and general insights of persuasive discourse strategies. Chapter 7 applies the knowledge gained in the foregoing chapters to one example of Global Footprint Network's recent intiatives, the "Ecological Creditor Initiative", started in partnership with the Community of Andean Nations. The same chapter makes extensive use of empirical material like meeting notes, interviews, internal documents, email discussions, official proposals and executive summaries. The conclusion evaluates the insights gained for theoretical research and practical implications for Global Footprint Network.

Jacques Chirac's words at the beginning of my introduction, which were also quoted in the Annual Report 2008,⁷ exemplify Global Footprint Network's approach to international politics. The norm diffusion activities by Global Footprint Network are not only designed to appeal to environmental ministers and experts but to shift the entire global dialogue and norm discourse towards "living well within the means of nature." This requires a societal transformation, a revolution in the world of ideas and collective beliefs which can induce wide-ranging changes in the behavior of actors.

⁷ Global Footprint Network (2009), Annual Report 2008, Oakland: Global Footprint Network.

⁸ http://www.footprintnetwork.org/en/index.php/GFN/

2. The International Norm Context

2.1. Definition of a Norm

In International Relations Theory, we generally understand norms as a "standard for appropriate behavior for actors with a given identity" or "collective expectations about proper behavior for a given identity." Norms can be distinguished from ideas, which are individually held beliefs. Norms transcend the personal sphere of beliefs and have the quality of an intersubjective, collectively held expectation about appropriate behavior. Consider Risse on this difference: "While ideas are about cognitive commitments, norms make behavioral claims on individuals." In a sociological sense, a norm can be distinguished from an institution which is defined as a "collection of practices and rules". The difference between both concepts is aggregation; an institution like "sovereignty" consists of several interrelated norms and a mix of rules and practices. Norms bear the function to "channel and regularize behavior; they often limit the range of choice and constrain actions." Norms lie behind an actor's preferences and interests - as such, they are difficult to observe or study. Especially in emerging societies and communities like the global society, the study of norms is a complicated enterprise and the questions of why, how and under what conditions international norms in general influence the actions of states and other actors is still contested. Risse stated in 1994 that ideas "do not float freely" - the diffusion of international norms and their acceptance is always dependent on the context, specific situations and actors' constellations. 13

Goldstein and Keohane point out that norms help social actors to orient themselves in an increasingly complicated social world: "Our argument is that ideas influence policy when the principled or causal beliefs they embody provide road maps that increase author's clarity about goals or ends-means relationships, when they affect outcomes of strategic situations in which there is no unique equilibrium, and when they become embedded in

⁹ Martha Finnemore and Kathryn Sikkink (1998), International Norm Dynamics and Political Change, in: International Organization 52:4, p. 887.

¹⁰ Thomas Risse and Stephen C. Ropp (1999), International human rights norms and domestic change: conclusions, in: Risse, Thomas, Stephen C. Ropp and Kathryn Sikkink (eds.), The Power of Human Rights: International Norms and Domestic Change, Cambridge: University Press, p. 236.

¹¹ Thomas Risse and Kathryn Sikkink (1999), The socialization of international human rights norms into domestic practices: introduction, in: Risse, Thomas, Stephen C. Ropp and Kathryn Sikkink (eds.), The Power of Human Rights: International Norms and Domestic Change, Cambridge: University Press, p. 7.

¹² Finnemore and Sikkink (1998), International Norm Dynamics, p. 887.

¹³ in: Risse and Sikkink (1999), The socialization of international human rights norms, p. 4.

political institutions."14

Scholars usually distinguish between regulative norms, which order and constrain behavior, and constitutive norms, which constitute new actors, interests or categories of actions. Another category, evaluative or prescriptive norms, is usually omitted, but Finnemore and Sikkink point out that they are of vital importance in their research framework about the evolution of international norms because of their intersubjective dimensions and standard of appropriateness. Fearon argues that "we typically do not consider a rule of conduct to be a social norm unless a shared moral assessment is attached to its observance or non-observance." Like for other motivations of political actions, especially interests or threats, we only have indirect evidence of norms. However, due to the intersubjective character and standard of appropriateness that has to be agreed upon by different actors for a norm to emerge, Finnemore and Sikkink observe that "norms prompt justifications for action and leave an extensive trail of communication among actors that we can study."

According to social constructivist research, norms, interests and preferences are not a given fact outside social interaction. They cannot be deduced from structural constraints in the international or domestic environment and are actively constructed by social agents in highly complex interaction processes. ¹⁹ Social norms build the backbone of a group's community sense, form the basis for identities and roles, and are causally independant.

Katzenstein states that "the international system is a 'society' in which states, as a condition of their participation in the system, adhere to shared norms and rules in a variety of issue areas." In general, researchers explain norm adherence by actors with two different social processes: (1) the internalization of norms by socialization into a group and (2) the wish to avoid sanctions by rational actors. Risse and Sikkink et al. developed a spiral model of norm acceptance and socialization based on a worldwide research project to

¹⁴ Judith Goldstein and Robert O. Keohane (1993), Ideas and Foreign Policy: An Analytical Framework, in: Goldstein, Judith and Robert O Keohane (eds.), Ideas & Foreing Policy - Beliefs, Institutions and Political Change, Ithaca and London: Cornell University Press, p. 3.

¹⁵ see Ruggie, Searle, Katzenstein and Wendt cp. Sebastian Harnisch (2008), Ansätze des Konstruktivismus, in: Wilhelm, Andreas and Carlo Masala (eds.): Handbuch der Internationalen Politik, Wiesbaden: Verlag für Sozialwissenschaften, p. 2.

¹⁶ Finnemore and Sikkink (1998), International Norm Dynamics, p. 892.

¹⁷ Ibid., p. 892.

¹⁸ Ibid., p. 892.

¹⁹ Risse and Sikkink (1999), The socialization of international human rights norms, p. 8.

²⁰ Reich (2003), Power, Institutions and Moral Entrepreneurs, p. 7.

explain this process in greater detail.²¹ What is noteworthy is that even if actors might follow an instrumental rationality initially, they become entrapped in their rhetoric, challenged by serious arguments of international advocacy networks, and do not have any option other than to accept the norm in an identity formation of member states and finally even adhere morally to the norm. Strategic motivation thus often sets into motion a process of identity transformation. According to that, "norms initially adopted for instrumental reasons are later maintained for reasons of belief and identity." It has also to be noted that there are differences between individuals in their sensitivity to guilt and shame and sanctions and in the way they think about norms. These differences do not only occur between individuals but there are also variations in different situations. Sociological research has also shown that people's reactions depend strongly on goal instructions – they often decide on a cooperative or competitive approach of the individual.²⁴

The reach of norms may be regional, national or global, and we frequently observe that international norms are transformed by domestic interpretations of a norm and internal compliance procedures. But even within a community, norms are "continuous, rather than dichotomous, entities [...] [and] come in varying strengths", with different norms commanding different levels of agreement.²⁵

Sociologists recurring on Durkheim's book on suicide (1951) have pointed out that norms in the modern age have become increasingly vague and thus cease to regulate behavior in a vacuum of chronic anomie.²⁶ However, recurring on an earlier book of Durkheim on the division of labour, Lindberg forfeits the less-known thesis that social norms have become more abstract (as opposed to vague) as societies have become extended and social norms have to cover an increasingly larger diversity of people and circumstances. As a consequence, "they rule only the most general forms of conduct and rule them in a very general manner, saying what must be done, not how it must be done."²⁷ Thus, a larger input of the individual is necessary for the interpretation and daily application of abstract social norms. This also leads to higher transaction costs. Lindenberg

21 Risse and Sikkink (1999), The socialization of international human rights norms, p. 8.

²² Ibid., p. 12.

²³ Siegwart Lindenberg (2008), Social norms: What happens when they become more abstract? In: Dieckmann, Andreas, Klaus Eichner, Peter Schmidt and Thomas Voss (eds.): Rational Choice: Theoretische Analysen und empirische Resultate, Wiesbaden: VS Verlag für Sozialwissenschaften, p. 65.

²⁴ Lindenberg (1998), Social Norms, p. 65.

²⁵ Legor in: Finnemore and Sikkink (1998), International Norm Dynamics, p. 892.

²⁶ Lindenberg (1998), Social Norms, p. 63.

²⁷ Durkheim in: Lindenberg (1998), Social Norms, p. 63.

argues that there are basically only two abstract norms ("smart norms") that govern the general interaction between people: the social imperative to not harm others and to not claim privilege.²⁸ In actual social situations, this requires an enormous effort of the individual to apply it to real behavior which is appropriate in different social situations.

2.2. The Norm of Sustainability

The norm of sustainability is said to have emerged with the Brundtland Report, which provided a first definition, the starting point and international forum for the discussion about environmental limits. Presented in 1987 by the Commission on Environment and Development (known as the Brundtland Commission), during the Earth Summit in Rio de Janeiro in 1992 and the Rio+10 Summit in 2002, the term sustainable development received widespread media and public attention.²⁹

The Brundtland report provided the following definition of sustainability:

"Humanity has the ability to make development sustainable — to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainable development does imply limits — not absolutee limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities."

Acknowledging that there are ecological limits and introducing the notion of intergenerational justice provided a first step on the long road to sustainability. According to Fergus, the original goal of the Brundtland Commission was "to question the instrumental rationalist paradigm and its influence on mainstream development processes to a point where other priorities would be included in the processes of planning and development." However, the finally published and well-known definition of the Brundtland Commission speaks the language of an early political dialogue, which refrains from including distribution and allocation problems between societies and nations. It focuses on the intergenerational aspect and falls short of acknowledging the

²⁸ Lindenberg (1998), Social Norms, p. 75.

²⁹ A. H. T. Fergus and J. I. A. Rowney (2005), Sustainable development: Lost Meaning and Opportunity? in: Journal of Business Ethics, 60:1, p. 21.

Cp. Helmut Breitmeier (2008), The Legitimacy of International Regimes, Surrey: Ashgate Publishing Limited, p. 39.

³⁰ Christine Ingebritsen (2002), Norm entrepreneurs: Scandinavia's Role in World Politics, in: Cooperation and Conflict, 37:1, p. 15.

³¹ Fergus and Rowney (2005), Sustainable development, p. 23.

intragenerational problems associated with it.

At the beginning of the 21st century, many environmental experts claim that the discussion about sustainability has come to a dead end.³² Some experts and practitioners in the field even refrain from using the term at all because the slogan has been used so frequently that it has lost much of its sense and power.³³ Consider Fergus and Rowney in their paper on "Sustainable Development: Lost Meaning and Opportunity":

"The term sustainable development has come into common use but has no clear meaning as applied (...). The use of the term is institutional, yet its meaning has become vague, ambigious, undefined, and often contradictory. To some extent the term has become a cliché (...)."³⁴

In the following chapters, we will see how Mathis Wackernagel and William Rees developed the Ecological Footprint in the 1990s to specify and disseminate the notion of sustainability. Global Footprint Network engages in refining the measurement and management tool in cooperation with international partners to globally promote the norm of sustainability, thus taking the concept from an opaque idea to a solid indicator.

2.3. International Relations Theories and Norms

Different International Relations theories are based on different assumptions about the structure of international politics. Realists argue that the distribution of power and capacities determine the international structure. Constructivists claim that the international structure is also determined by the international distribution of ideas. According to constructivist theories, the main vehicles for transformation are not shifts in the balance of power but ideational shifts. From a constructivist perspective, "shared ideas, expectations and beliefs about appropriate behavior are what give the world structure, order and stability." Norms can thus be conceived as the first step and basis in the chain of identity, interests and behavior. The starting point for social constructivism is the mutual constitution of social structure and agency. Norms can be considered as the link between these two constituents. The relationship between structure and agent is not one-way:

³² Fergus and Rowney (2005), Sustainable development, p. 20.

³³ Ingebritsen (2002), Norm entrepreneurs, p. 15.

³⁴ Fergus and Rowney (2005), Sustainable development, p. 20.

³⁵ Finnemore and Sikkink (1998), International Norm Dynamics, p. 894.

³⁶ Simon Reich (2003), Power, Institutions and Moral Entrepreneurs, ZEF – Discussion Papers on Development Policy No. 65, Center for Development Research, Bonn, p. 7.

structure can determine agents and agents can change structure. This is an important distinction between realists and social-constructivists:

"Constructivism is an approach to social analysis that deals with the role of human consciousness in social life. It asserts that human interaction is shaped primarily by ideational factors, not simply material ones; that the most important ideational factors are widely shared or "intersubjective" beliefs, which are not reducible to individuals; and that these shared beliefs construct the interests of purposive actors."³⁷

The social constructivist paradigm emphasizes that ideas and communicative processes define in the first place which material factors are perceived as relevant and how they influence understandings of interests, preferences and political decisions.³⁸

2.4. The Life Cycle of a Norm and the Ecological Footprint

Finnemore and Sikkink set out to explain how and why certain international norms, not others, are successfully promoted, diffused and adopted by states in the international community. In their effort to conceptualize the emergence of new norms, Finnemore and Sikkink draw on insights gained from US legal theory, sociology's institutionalism and International Relations theories. With regard to legal theory, they point out that, in the international realm, similar processes to domestic processes are at work when new norms emerge. Finnemore and Sikkink argue that "norms evolve in a patterned "life cycle" and that different behavioral logics dominate different segments of the life cycle." It is important for norm researchers to understand these patterns because many arguments about norm-based behavior like choice or habit, costs of norm-violation or benefits of norm evolution.

Finnemore and Sikkink differentiate three stages: first, the emergence of a norm, where the central actors are norm entrepreneurs; second, the tipping point followed by a norm cascade and broad norm acceptance by a critical amount of states; and third, norm internalization and specification in legal documents or bilateral agreements. Finnemore and Sikkink argue that the domestic impacts are crucial during the first phase, psychological

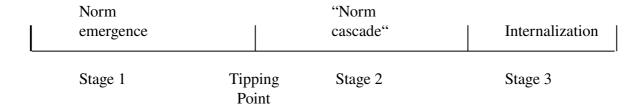
³⁷ Martha Finnemore and Kathryn Sikkink (2001), Taking Stock: The Constructivist Research Program in International Relations and Comparative Politics, in: American Review of Political Science, 2001:4, p. 391.

³⁸ Risse and Sikkink (1999), The socialization of international human rights norms, p. 6-7.

³⁹ Finnemore and Sikkink (1998), International Norm Dynamics, p. 891.

mechanisms of group adherence, socialization, peer pressure and state identities at the second stage, and legal institutionalization processes and habits at the third stage.

Figure 1. Norm Life Cycle



in: Finnemore and Sikkink (1998), International Norm Dynamics, p. 896.

Although Ingebritsen argues that "the sustainability norm has taken hold (...) and has survived the first two phases of the norm life cycle" and some celebrate the introduction of the concept of sustainability into government documents and white books, many contest the vague and opaque notion of sustainability and doubt that it has reached consensual ("prescriptive") status on the international level today. But even if the concept had become widely acctepted, the continuing environmental destruction and slow response to pressing environmental problems like climate change or the food crisis suggest that sustainability has not yet become the yard-stick for government decisions across all sectors: the norm of sustainable development has not fully been internalized. As mentioned by Finnemore and Sikkink, the extensive trail of communication around the norm of sustainability also points to its still contested quality – once a norm is widely accepted and implemented, no one talks about it anymore. Payne confirms this: "Ultimately, norms are fully internalized, habitually followed in practice, and rarely the subject of debate."

For the concept of the Ecological Footprint as a measurement for sustainability, we can distinguish several stages. Whereas various states like the United Arab Emirates, Switzerland and Wales have embraced the concept, the tipping point, defined by Finnemore and Sikkink as one third of the states worldwide, has not been reached yet. Not all of Global Footprint Network's campaigns are at the same stage – there are overlapping

⁴⁰ Ingebritsen (2002), Norm entrepreneurs, p. 16.

⁴¹ A good example for this phenomenon is women's suffrage.

⁴² Rodger A. Payne (2001), Persuasion, Frames and Norm Construction, in: European Journal of International Relations, 7:37, p. 55.

campaigns in different countries with different degrees of coordination to institutionalize the Ecological Footprint. On a global level, however, the tipping point has not been attained yet.

As my thesis will be concerned with the diffusion of the norm of sustainability as conceived by the Ecological Footprint on a global level, I will focus on the first stage, the norm emergence. As all these aspects are dealt with in more detail in the following chapters, I would only like to give a brief overview of the general mechanisms. Generalizing from their extensive review of literature, Finnemore and Sikkink state about the fundamental importance of norm entrepreneurs and their organizational platforms during the first stage:

"Two elements seem common in the successful creation of most new norms: norm entrepreneurs and organizational platforms from which norm entrepreneurs act. Norms do not appear out of thin air; they are actively built by agents having strong notions about appropriate or desirable behavior in their community."

As the inventors of the Ecological Footprint, Mathis Wackernagel and William Rees can be considered as examples of "norm entrepreneurs" that are critical for the emergence of the norm of sustainability. Reich confirms these findings and points to the "presence of aggressive moral entrepreneurs in advocating norms and garnering broad-based support for them." But strong organizational platforms are decisive for the successful promotion of a norm by any norm entrepreneur. Designed entirely for the scientific development and global promotion of the Ecological Footprint, Global Footprint Network provides Mathis Wackernagel with an organizational platform that supplies him with resources and gives access to the public discourse on social norms and appropriate behavior. Chapter 3 will give a detailed description of the concept of norm entrepreneurs and their organizational platforms. Finnemore and Sikkink conceive persuasion activities to be critical for this first stage of norm emergence. Chapters 5 and 6 will go into depth about communications strategies of Global Footprint Network and processes of persuasion.

⁴³ Finnemore and Sikkink (1998), International Norm Dynamics, p. 896.

⁴⁴ Reich (2003), Power, Institutions and Moral Entrepreneurs, p. 9.

3. Operationalizing the Norm of Sustainability:

The Ecological Footprint

The Ecological Footprint was developed for three main reasons. One is to provide a measurement tool for sustainability. The second is to make sustainability operational and tangible. The third is to enable decision-makers to account for the biological resources and services that are available to them and the demand their societies pose on those resources and services. Consider Wackernagel and Rees: "That's why we developed the Ecological Footprint: as a means of making the simple reality of one planet measurable and relevant for decisions at any level: household purchases, urban planning, national politics or global governance."

New York Times columnist Eric Zencey points out how important monitoring tools are for decision makers: "Wise decisions depend on accurate assessments of the costs and benefits of different courses of action."

Finnemore and Sikkink underscore the need of the specification of international norms: "conceptual precision is essential for both meaningful debate and defensible empirical work."

Thus, Global Footprint Network provides a method to operationalize the vague norm of sustainability and helps to specify conceptual debate, research and policy implications.

As an ecological accounting tool, the Ecological Footprint measures the productivity of ecosystems used for human needs. It includes cropland, grazing land, forests, fishing grounds, built-up land and carbon-uptake land to sequester the CO2 emitted by human energy consumption. Only 13% of the surface of the Earth are biologically productive land. This excludes deserts, ice caps, or the open ocean, all areas which are non-or diminishingly productive in terms of providing goods or services for human needs. This part of the accounting tool is called biocapacity. The demand side, the actual Ecological Footprint of a group of people or an individual, is measured in the same unit, a normalized global hectare. A global hectare is defined as a hectare with world-average productivity. It contains human consumption needs for food, timber, fiber, area needed for housing and infrastructure and area to absorb waste products like CO2 emissions. If you think of the pyramid of basic needs, this essentially covers most of the basic needs: food, shelter and

⁴⁵ Interview with Mathis Wackernagel, co-inventor of the Ecological Footprint and co-founder and President of Global Footprint Network, 6th May 2009, Oakland.

⁴⁶ New York Times article "G.D.P. R.I.P." by Eric Zencey, 9 August 2009, http://www.nytimes.com/2009/08/10/opinion/10zencey.html?scp=5&sq=GDP&st=cse.

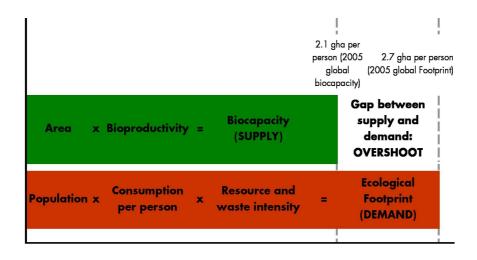
⁴⁷ Finnemore and Sikkink (1998), International Norm Dynamics, p. 891.

mobility. As Wackernagel and Kärcher point out, for the Ecological Footprint, it does not matter where these land masses are: "people consume ecological resources and services from all over the world, so their Footprint is the sum of these areas, wherever they may be located on the planet."⁴⁸

3.1. The Notion of Sustainability behind the Ecological Footprint

Global Footprint Network's understanding and definition of sustainability, as mentioned above, is "living well within the means of nature." This definition can be broken down into three dimensions: ecological, economic and social sustainability. However, the Ecological Footprint only measures the first dimension. In the understanding of Environmental Economics thinking, and the mind of William Rees, the ecological dimension is the basis for all the other dimensions, and thus the first condition for sustainable development.

Graph 1. Overshoot Graph, 2005, Global Footprint Network



William Rees and Mathis Wackernagel emphasize the fact that the Ecological Footprint in its strictest sense is not an accounting tool to measure sustainability (because it only covers the first, the ecological dimension), but a measurement of unsustainability. If the first condition is not met, the basis for the economic and social dimension is missing, and

⁴⁸ Mathis Wackernagel and Martin Kärcher (2009), Measuring Sustainable Investment Options in Development Cooperation - Ecological Capital and Human Well-Being, Concept Paper, Version 06/01/2009, p. 8.

⁴⁹ Interview with Mathis Wackernagel, 6th May 2009, Oakland.

sustainability is out of reach. This is especially true for the time period from the 1980s until today, when humanity has overdrawn nature's budget. This situation is called "overshoot" and is basically a negative sum gained by subtracting the Ecological Footprint of humanity from the globally available biocapacity in a given year (see Graph 1 on page 18).

An aspect that distinguishes the work of Global Footprint Network from the Club of Rome is its focus on present-day and historic accounting. Whereas projections about how humanity might develop in future were quite popular in the seventies, they could easily be discouraged as horror scenarios and ripped up by the public press. Global Footprint Network underlines its scientific credibility by focusing on the past development and present state of biocapacity and human demand. In the words of co-creator Mathis Wackernagel, the Ecological Footprint calculations provide a snapshot of human resource appropriation of every year.⁵⁰

The Ecological Footprint provides a measurement of the flows of biological capital, not of its stocks. However, as humanity currently exceeds the world's biocapacity (or its capacity to regenerate the resources that we consume), we actually draw on nature's capital. This can be compared to a bank account, where we spend money faster than the generated interest and thus destroy the capital that is the basis for our income in the long run. In metaphoric terms, it captures the idea of the Brundtland Commission that behavior today should not harm the opportunities of future generations. It might also resonate with common phrases like "we only borrowed the world from our children" or "we are only visitors on this planet". The basic assumption behind the Ecological Footprint concept and One-Planet-Living is that we should live off the ecological goods and services that are produced by the Earth's biocapacity. We should not draw on nature's capital because ultimately, it destroys our basis of living and income.

Surprisingly, scientific research about ecological limits is relatively poor. We do not know how elastic ecological limits are and at which rate of overuse ecosystems collapse. Even for local ecosystems, this has not been researched very widely, let alone for the global ecosystem.

The Ecological Footprint has been and still is the only aggregate measurement and accounting tool of sustainability. By not expressing human needs of consumption in terms of amounts, but in terms of land and sea area needed to support consumption, it makes

⁵⁰ Mathis Wackernagel in a talk in Silicon Valley, March 2009.

ecological limits understandable for everyone. As there is only one planet from which we can draw resources, abstract numbers become tangible and understandable for the wider public. "What has made the Footprint so effective? It uses powerful, easy-to-grasp metaphors backed by rigorous scientific analyses." The concept of One-Planet-Living gets easy to communicate. In the words of Wackernagel and Kärchner: "Although the world economy and population continues to grow, our planet remains the same size." Compare this concept with the global dialogue about CO2 emissions; there are enormous discussions about how high reductions should be, who should reduce how much, who has a greater historic responsibility, etc. For the general public, limits in CO2 emissions thus appear arbitrary, constructed by political dialogue. The Ecological Footprint, however, provides an objective accounting method to describe the state of the planet - how many biological resources are produced every year by the world's ecosystems, and how many resources are used by human consumption.

3.2. Sustainability Issues that the Ecological Footprint cannot address

The Ecological Footprint is the most aggregate indicator of human resource consumption and un-sustainability. Governments, cities, businesses and individuals use it to evaluate their ecological consumption needs. However, there are some issues of sustainability that the Ecological Footprint does not address, which is mostly due to its measurement unit, the global hectare, and its unique research question – "How much of the planet's bioproductive capacity is demanded to support human activities?" While comprehensive, the Ecological Footprint is not and cannot be considered a complete measure of environmental sustainability. ⁵⁴ Thus, there are some restrictions when applying the Ecological Footprint as a measurement of human-induced environmental impact.

Geological Resources

The Ecological Footprint measures biologically productive land areas. Thus, when we speak about natural resources in terms of the Ecological Footprint, geological resources

⁵¹ Interview with Mathis Wackernagel, 6th May 2009, Oakland.

⁵² Wackernagel and Kärcher (2009), Development Concept Paper, p. 8.

⁵³ Mathis Wackernagel (2009), Methodological advancements in footprint analysis, in: Ecological Economics, 68, p. 1925.

⁵⁴ Justin Kitzes et al. (2007), A Research Agenda for Improving National Ecological Footprint Accounts, Oakland: Global Footprint Network, p. 10.

like metals, coal and oil are not included. They are not regenerated by the Earth and have been produced over millions of years. However, the area that is occupied by mining industries to extract copper, for example, is included in humanity's Ecological Footprint. The emissions generated by the burning of fossil fuels like oil, gas and coal are included in the Ecological Footprint because they can be absorbed by photosynthetic processes in plants. Based on estimates by the IPCC, Global Footprint Network assumes that the open ocean absorbs 25% of global CO2 emissions. Thus, 75% of CO2 emissions have to be sequestered by biologically productive land areas if the atmosphere is not used as a global sink for CO2 emissions and an anthropogenic change of climate is to be prevented. This can adequately be expressed by the carbon Footprint, which is one integral part of the Ecological Footprint. The additional value to climate change discussions will be explored in a distinct chapter below.

Toxics

Toxic waste impacts of humans on the biosphere in terms of persistant pollutants are difficult to measure in a land unit, and case-by-case studies would be needed. The impact of toxics on human health cannot be measured in a land unit of global hectares. The same is true for most of the other greenhouse gases besides CO2 like methane, nitrous oxide, fluorocarbons and sulfur hexafluoride, where it is unclear yet if they can be sequestered by the Earth at all.⁵⁵

Nuclear Footprint

As by the nature of its approach, Footprint accounting cannot measure future implications of certain activities. This has been widely criticized in the case of nuclear waste. The nuclear Footprint, compared to the oil or coal Footprint, is relatively low because of low carbon emissions.

Biodiversity

The Ecological Footprint was adopted by the Convention on Biological Diversity (CBD) as one of its indicators, but it is only in the first part of the framework of Pressure-State-Response (PSR), the pressure on biodiversity from outside factors, that it can provide

⁵⁵ Kitzes et al. (2007), A Research Agenda for Improving National Ecological Footprint Accounts, p. 10.

insights. The indicator itself does not compile any information about the state of biodiversity or the loss of species. But with its expression of human resource consumption in land mass, it makes clear that humans, wild animals and plants compete for biologically productive land. It is thus conceived as a large-scale, indirect driver of biodiversity loss.⁵⁶ Other examples are poverty or population growth. One reason the CBD included the Ecological Footprint was that it is one of the few indicators that captures the direct relation of humanity towards its natural environment and the biodiversity of living things. However, as no consensus has been reached so far about how much land should be set aside for the needs of other species, every biologically productive land area is included in the global biocapacity. This does not imply that Global Footprint Network suggests to not set aside any land for wild animals and untouched flora and fauna - it rather emphasizes the conservative approach of Ecological Footprint accounting in overestimating the available biocapacity and underestimating the Ecological Footprint. Refinements of the method would thus rather lead to a more extreme picture of the state of the world's ecosystems. It also shows the highly scientific approach of Global Footprint Network, which does not work with data unless they have been confirmed by several independent sources.

Water Footprint

As a metric based on the core unit of land or sea area, the Ecological Footprint cannot capture freshwater use itself. It is not a photosynthetic product of the biosphere but rather an enabler of biocapacity. However, the virtual "water footprint", developed by Hoekstra et al. and measured in liters needed to produce a certain product, is often reported next to Ecological Footprint numbers (e.g. in the Living Planet Report).⁵⁷

Land degradation

Another important criticism of the Footprint which stems from the fact that it provides a snapshot of current resource use is that it cannot address long-term land degradation or soil erosion. Its yield factors for different land types are drawn from data provided by UN FAOSTAT which give an idea of the productivity of certain land types. If the productivity of a certain crop increased, it would be shown in the biocapacity of this land type in the following year. If resource use has increased at the same time, like petrol-based farming

⁵⁶ Kitzes et al. (2007), A Research Agenda for Improving National Ecological Footprint Accounts, p. 11.

⁵⁷ Ibid., p. 20.

methods, irrigation techniques, or fertilizers, the carbon Footprint of that population increases as well. Although the Footprint does capture these two aspects of intensive farming, as a measure of current resource use and biocapacity, it cannot provide long-term impacts of these farming techniques on the land before they have happened. Similar to atomic energy, the Footprint of current use of this technique does not entail the possible long-term effects of these technologies on the environment. Organic farming thus does not get explicit credits for sustainable use of the soil, but it usually has a smaller Footprint due to lower emission of carbon dioxide.

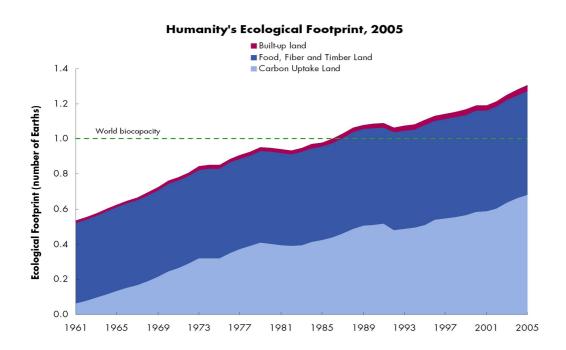
In the context of International Relations Theory, Footprint accounting transferred the norm of sustainability from an open, often-defined concept to a scientific measurement, that can actually influence policy decisions, provide a basis for international agreements and allocation schemes and can hold decision-makers accountable. It also makes it possible for Global Footprint Network to evaluate its progress, by seeing how many governments, cities and businesses actually use Footprint accounting for decision-making. The "Ten-in-Ten Initiative" captures this idea. Within ten years from 2005, Global Footprint Network would like to have ten governments put in place Ecological Footprint accounting. The goal is fulfilled by reviewing the data used by Global Footprint Network with national data sets and taking the Footprint into national statistics. This provides Global Footprint Network with a clear indicator of success or failure. In the case of Ten-in-Ten, progress has been faster than expected, and by the time of writing, Switzerland, the United Arab Emirates, Belgium, Japan, Finland, Luxembourg, and the European Commission have participated and already completed or started a research collaboration with Global Footprint Network. This is a great and fast success for the Ecological Footprint as a solid measurement, accounting and communications tool for the norm of sustainability.

3.3. The Ecological Footprint and Climate Change

The current public debate on environmental matters focuses on climate change and CO2 emissions. A first look at the data of Global Footprint Network might justify this focus on CO2 emissions: the carbon Footprint makes up more than 50% of humanity's overall Ecological Footprint in 2005. To some, this might suggest focusing on carbon emissions and putting all our efforts and attention towards the goal of CO2 reductions makes sense.

However, carbon is just one side of the story. Richard Heinberg and many environmental experts do not just speak of "peak oil", but of "peak everything". According to Mathis Wackernagel, the global situation is characterized by "peak energy, rapid climate change, food shortages, biodiversity loss, depleted fisheries, soil erosion and freshwater stress." Thus, carbon emissions are just one issue that needs to be addressed, together with all the other demands of humans on the biosphere. The Ecological Footprint provides a comprehensive measurement: It is "carbon, plus."

Graph 2. Humanity's Ecological Footprint, 2005, Global Footprint Network



Regarding the issue of agrofuels, I would like to exemplify the fact that it makes sense to look at carbon in a more comprehensive framework with the Ecological Footprint. For a couple of months, agrofuels seemed to be the solution for the energy crisis. After the Haiti food crisis, droughts and extreme weather conditions all over the world, the debate shifted and the fact that there was a competition for productive land between agrofuels and food crops was widely acknowledged. On an international level, this is reflected by the UN

⁵⁸ in: Charles A.S. Hall and John W. Day (2009), Revisiting the Limits to Growth After Peak Oil, in: American Scientist, 97, May-June 2009, p. 230.

⁵⁹ Mathis Wackernagel (2009), What does the Footprint add to Carbon Accounting, Concept Paper, p. 1. 60 Ibid., p. 1.

REDD (United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries) discussion surrounding Copenhagen. The Ecological Footprint has the advantage of showing different demands on productive land in one indicator.

The social constructivist theories about norm change, especially the work of Kathryn Sikkink, emphasize that emerging norms and new concepts have to tie in with already existing and accepted concepts. Climate change and the carbon Footprint, which was widely advertised in the anglophone world by the British Petroleum company (BP) with a 300 million-Dollar campaign, might be an already existing concept that is widely known by the international public. Connecting back to the carbon Footprint, and actually having it at its center with the carbon Footprint being 50% of humanity's Footprint, seems like a good opportunity and starting point for establishing the Ecological Footprint as a prime measurement of unsustainability. The carbon Footprint was extracted by BP from the Ecological Footprint – the concept of the Ecological Footprint had been established before the carbon Footprint. As the encompassing concept, it had not received widespread attention backed by an expensive media campaign, but uses the same scientific data and methodology. To underscore the prominence of the carbon Footprint, I would like to quote from a speech Barack Obama gave in front of German and French students in Strasbourg in April 2009 amidst the festivities of the NATO summit:

"President Obama: [...] You cannot expect poor countries, or relatively poor countries, to be partners with us on climate change if we are not taking the lead, given that our carbon footprint is many times more than theirs per capita. I mean, each one of us in the developed world, I don't care how environmentally conscious you are, how green you are - I'm sure there are some green folks here -

Crowd: Yes!

President Obama: Yes! I don't care how green you are -- you have a much bigger *carbon footprint* than the average Indian, or the average person from China. And so we in developed countries then - it's critical for us to lead by example by becoming more energy efficient, and we also have to harness technology and share scientific breakthroughs in order to find more sustainable energy patterns."61

This quote not only shows how prominent the carbon Footprint is (it is used as a fixed

⁶¹ White House Documents and Publications, Remarks by President Obama at Strasbourg Town Hall, 4 April 2009, p. 8.

expression without any further explanation for people to understand it), but it also makes clear that the American President understands the difference between environmental consciousness and actual behavior of the environmentally conscious ("green folks") in natural services appropriation. Studies have shown that environmentally conscious people have a similar carbon Footprint as their fellow citizens because of their life-style that often includes a significant amount of international travel. Furthermore, these remarks by Obama are exceptional because he seems to have the same underlying assumptions about environmental justice as Global Footprint Network: he talks about the need of Western countries to take the lead in climate change negotiations and actions because of *per capita* consumption. Many Western politicians, including the German chancellor Angela Merkel, try to hide behind overall numbers and high absolute emissions of growing nation states like China and India and thus try to justify their own idleness.⁶²

3.4. The Ecological Footprint and Human Development

If one should name an indicator for development, GDP is the most common answer. Many government policies and development agencies concentrate their efforts on increasing a country's Gross Domestic Product (GDP). Economic growth and a high level of employment are still considered the desirable goals of every society. The release of these data is expected with high anticipation among decision-makers.

Mathis Wackernagel and William Rees set out to develop a resource accounting tool that makes decision-makers think and take action. As explained before, the Ecological Footprint only encompasses the first condition of sustainability, the ecological capacity of our planet. It does not capture socio-economic developments. However, by plotting HDI results against the Ecological Footprint, resource consumption is linked with human development and draws a more complete picture of sustainable development.

Linking Human Development (HDI) and Footprint numbers will serve the following needs of the development community: "The often opaque notion of sustainability will become operational: clearer in definition and target setting, applicable in project planning, accountable in reporting." For this reason, Global Footprint Network proposes an assessment framework to ease decision-making for sustainable development projects and

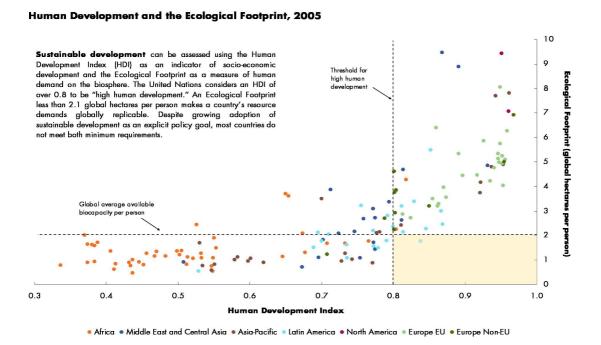
⁶² Speech in the European Parliament Election Campaign at University Square in Heidelberg, 8 June 2009.

⁶³ Wackernagel and Kärcher (2009), Development Concept Paper, p. 5.

investments.64

Global Footprint Network is aware of the criticism of HDI numbers and its shortfalls. However, it sees it as a "first approximation of human well-being"⁶⁵, and agrees that indicators to reflect political participation or gender inequalities should be added to gain a more complete picture of sustainable development.

Graph 3. Human Development and the Ecological Footprint, 2005, Global Footprint Network



As mentioned before, studies of the emergence of international norms suggest that the probabilities of success increase tremendously when the concept is linked to a pre-existing norm. The HDI is one of the few accepted indicators beside GDP reflecting human development. This composite index makes it possible to compare different countries and stimulate debate on government policies on health and education. In its set-up, the Ecological Footprint is quite comparable, as it also aims to broaden the discussion of human well-being to go "beyond GDP". By establishing a global currency of ecological service provision, the global hectare, it makes comparisons between countries possible. Thus, joining the two indicators in one graph makes sense content-wise, but also from a

⁶⁴ Wackernagel and Kärcher (2009), Development Concept Paper, p. 5.

⁶⁵ Ibid., p. 8.

strategic point of view for Global Footprint Network to seek further international acceptance of the Ecological Footprint as an indicator of (un-)sustainability.

The same applies for the Happy Planet Index (HPI), with newly released numbers in August 2009. The HPI has been created by the New Economics Foundation (NEF) as an alternative yard-stick to economic-growth based measures of social progress and is designed to measure the ecological efficiency with which countries provide a high quality of life for their citizens: "The index combines environmental impact with human well-being to measure the environmental efficiency with which, country by country, people live long and happy lives." For human-induced ecological impact on the Earth, it uses the Ecological Footprint and thus shows how the metric, which originally was designed only to measure the first condition of sustainability, the environmental basis, can be combined with other indicators to provide a more complete picture of the notion of societal sustainability. In times like these when more and more people urge to go "beyond GDP", these alternative indicators of human well-being might become more and more attractive.

3.5. Which Norms matter under what Conditions?

Finnemore and Sikkink provide one of the first accounts in norms research in International Relations to identify hypotheses about which norms may be influential in world politics and under what conditions they become widely accepted.⁶⁸ Ingebritsen points out that "not all norms are influential, or hegemonic, in international politics. Norms may co-exist, conflict, or fail to be recognized by the majority of states in the international community."⁶⁹ In the following, I would like to present Finnemore and Sikkink's hypotheses about the success of norms in general and reflect on the prospects of promoting the norm of sustainability by advancing the Ecological Footprint.

The following hypotheses have been elaborated by Finnemore and Sikkink and are open for further refinements and testings:

⁶⁶ http://www.happyplanetindex.org/, accessed 22/08/2009

⁶⁷ Cp. the New York Times article "G.D.P. R.I.P." by Eric Zencey, 9 August 2009, who asks for GDP to be relegated to the "dustbin of history", http://www.nytimes.com/2009/08/10/opinion/10zencey.html? scp=5&sq=GDP&st=cse, accessed 22/08/2009.

⁶⁸ Finnemore and Sikkink (1998), International Norm Dynamics, p. 905-906.

⁶⁹ Ingebritsen (2002), Norm entrepreneurs, p. 12. Cp.: "New norms never enter a normative vacuum but instead emerge in a highly contested normative space where they must compete with other norms and perceptions of interest." In: Finnemore and Sikkink (1998), International Norm Dynamics, p. 898.

- Legitimation: The more states seek to enhance their reputation or esteem, the more "insecure" they are about their international or domestic status or reputation in situations of political turmoil, the more likely they are to embrace new international norms.⁷⁰
- Prominence: The more prominent the norm or the norm entrepreneur is, the more successful will the norm entrepreneur be in finding states to adopt and accept the new norm.⁷¹
- Intrinsic characteristics of the norm: The clearer and more specific the norm has been formulated, the longer the norm has been around, the more often it has survived numerous challenges and the more universal norms are, the more likely they are to have expansive potential and be effective. Several arguments have been put forward about which normative claims are more influential. Boli and Thomas suggest that norms that connect to the principles of universalism, individualism, voluntaristic authority, rational progress and world citizenship might be most influential. Keck and Sikkink propose that norms involving either the prevention of bodily harm for vulnerable groups or innocent bystanders or norms referring to the legal equality of opportunity are particularly effective in the transnational realm and across different cultures. Despite differing suggestions, the basic assumption seems to hold true for international norm promotion that "Norm entrepreneurs must speak to aspects of belief systems or life worlds that transcend a specific cultural or political context."
- Adjacency Claims or Path Dependence: The better a norm fits in with existing normative frameworks and the more analogies can be established by norm entrepreneurs, the more powerful or persuasive does the norm become. This hypothesis is severely influenced by legal insights about precedents and adjacency. But, as is pointed out by Price, "the meanings of any particular norm and the linkages between existing norms and emergent norms are often not obvious and must be actively constructed by proponents of new norms."⁷⁵
- World Context: The more unstable the international system gets through major

⁷⁰ Finnemore and Sikkink (1998), International Norm Dynamics, p. 906.

⁷¹ Ibid., p. 906.

⁷² Ibid., p. 907.

⁷³ Boli and Thomas in: Ibid., p. 907.

⁷⁴ Ibid., p. 907.

⁷⁵ Price in: Ibid., p. 908.

disruptive events like global recessions or wars, the more likely is a search for and acceptance of new ideas and norms.⁷⁶ Finnemore and Sikkink also point out that the speed of normative change seems to be accelerating in the current period of globalization with the advancement of communication and transportation technologies and growing interdependence and exchange between different actors and parts of the world.⁷⁷

Several insights can be drawn from these propositions that could be fruitful for the work of Global Footprint Network. The first hypothesis about legitimation might explain why Global Footprint Network has been successful in promoting the Ecological Footprint in small states that are interested in enhancing their international status like the United Arab Emirates, Switzerland or Wales. I will deal with the prominence of Global Footprint Network in the chapter about its roles and functions. Regarding the *intrinsic characteristics* of a norm, the concept of sustainable development might be a notion that appeals crossculturally and reconnects to ideas of legal equality of opportunities as can be found in the original definition of sustainability in the Brundtland report.⁷⁸ One issue that is clearly addressed and advanced by Global Footprint Network is the formal specification and clarification of the norm of sustainability by providing a robust natural resource accounting tool for sustainability. Furthermore, the legal analogy about precedents makes clear how important successful framing activities are for the work of norm entrepreneurs. I will deal with framing activities in more detail in chapter 5. Concerning world context, we might expect Global Footprint Network to be more successful during times of economic recession, as conventional economic models get questioned and re-evaluated.

4. Norm entrepreneurs

4.1. Definition

Norm entrepreneurs are the central actors during the first stage in the life cycle of a norm, the norm emergence. Ingebritsen points out that norm entrepreneurs can be individuals, states or societal actors.⁷⁹ The initial leadership of individuals in the first phase is very

⁷⁶ Finnemore and Sikkink (1998), International Norm Dynamics, p. 909.

⁷⁷ Ibid., p. 909.

⁷⁸ Cp. "to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs."

⁷⁹ Ingebritsen (2002), Norm entrepreneurs, p. 12.

common. Finnemore and Sikkink name Henry Dunant from the International Committee of the Red Cross for the first Geneva Convention and the protection of noncombatants and medical personnel in war situations and Elizabeth Cady Stanton and more distinguished individuals for the emerging norm of women's suffrage. Müller calls these norm initiators "benevolent individuals", who are driven by moral ideas and beliefs which they want to promote and make the content of intersubjective norm structures. Finnemore and Sikkink's description of these initial norm teachers is consistent with Ethan Nadelmann's concept of "transnational moral entrepreneurs" or legal theorist Lessig's concept of "meaning managers" or "meaning architects." Ingebritsen points out that also states have been important norm entrepreneurs for the norm of sustainability in its emerging status: "Scandinavia has played a comparable role as norm entrepreneur." However, norm entrepreneurs cannot be successful without a platform from which they address their audience.

4.2. Organizational Platforms

Finnemore and Sikkink provide a detailed account of organizational platforms which I would like to quote at length:

"All norm promoters at the international level need some kind of organizational platform from and through which they promote their norms. Sometimes these platforms are constructed specifically for the purpose of promoting the norm, as are many nongovernmental organizations (NGOs) [...] and the larger transnational advocacy networks of which those NGOs become a part [...]. International organizations like the UN and the World Bank, though not tailored to norm promotion, may have the advantage of resources and leverage over weak or developing states they seek to convert to their normative convictions. Networks of NGOs and intergovernmental organizations (IGOs) dealing with powerful states, however, are rarely able to "coerce" agreement to a norm—they must persuade."

Although operating from an organization individually tailored to norm promotion has the advantage for the content of a norm of not being filtered or shaped by other agendas, resources and access to audiences might be a big challenge beside the fact that agreement

⁸⁰ Finnemore and Sikkink (1998), International Norm Dynamics, p. 897.

⁸¹ Harald Müller (2002), Security Cooperation, in: Walter Carlsnaes (ed.): Handbook of International Relations, London: SAGE, p. 380.

⁸² Finnemore and Sikkink (1998), International Norm Dynamics, p. 897.

⁸³ Ingebritsen (2002), Norm entrepreneurs, p. 16.

⁸⁴ Finnemore and Sikkink (1998), International Norm Dynamics, p. 899.

cannot be attained by legal force but voluntary acceptance. The defining mode for the emergence of a norm, persuasion, thus seems to be more decisive for norm entrepreneurs without an international organization as a platform. As we will see in a later chapter, this is also the case for Global Footprint Network, an international NGO and think tank that was established to provide a forum to promote the norm of sustainability by advancing the Ecological Footprint as an accounting tool for decision-makers. In comparison, using the advantage of an already established forum and authoritative decisions, Finnemore points out how international organizations have successfully promoted international norms.⁸⁵ Milliken talks about "priviliged storytellers" which have institutional advantages in norm promotion and access to audiences.⁸⁶

The concept of norm entrepreneurs is only one way to look at an actor like Global Footprint Network. Within International Relations theories, it is very common to look at scientific communities as "epistemic communities", a concept which can also be applied to Global Footprint Network.

4.3. Epistemic Communities

Peter M. Haas provides a good introduction to epistemic communities. In his studies, he follows the pioneers in this topic, Ernst B. Haas and John Gerard Ruggie. Peter M. Haas defines an epistemic community as "a network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within this domain or issue-area." These scientists share a common set of normative and principled beliefs, causal beliefs, notions of validity and common practices, called a "common policy enterprise". Thus, epistemic communities can be distinguished from other knowledge-based groups like a discipline, profession or a coalition of bureaucrats. Their basic role is to provide outside-information to policy-makers and provide them with expert knowledge about a special issue.

This focus on a shared normative basis can also be found in Finnemore and

⁸⁵ Martha Finnemore (1993), International Organizations as Teachers of Norms, in: International Organization, 47:4, p. 565-597.

⁸⁶ Sebastian Harnisch (2003), Theorieorientierte Außenpolitikforschung in einer Ära des Wandels, in: Hellmann, Gunther, Wolf, Klaus Dieter and Michael Zürn (eds.): Die neuen Internationalen Beziehungen. Forschungsstand und Perspektiven der Internationalen Beziehungen in Deutschland, Baden-Baden: Nomos Verlag, p. 338.

⁸⁷ Peter M. Haas (1992), Introduction: Epistemic Communities and International Policy-Coordination, in: International Organization, 46:1, p. 2.

⁸⁸ Ibid., p. 35.

Sikkink's elaboration on the motivation of norm entrepreneurs: "Ideational commitment is the main motivation when entrepreneurs promote norms or ideas because they believe in the ideals and values embodied in the norms, even though the pursuit of the norms may have no effect on their well-being."

Adler and Haas state that membership in epistemic communities is typically thirtyfive people or less. 90 More important than their size is whether members are respected within their immediate disciplines and that their knowledge is consensually generated.91 The concept of epistemic communities is derived from Michel Foucault's notion of an "episteme" to refer to a dominant way of looking at social reality. 92 John Gerard Ruggie argues that these "epistemes" provide the "assumptions from which policies follow and shape the pattern of politics over the long run."93 In line with Ruggie's basic assumption, Adler and Haas conclude that "epistemic communities exert influence on policy innovation by (1) framing the range of political controversy surrounding an issue, (2) defining state interests, and (3) setting standards."94 They also describe epistemic communities as channels through which knowledge enters political circles, or carriers of ideas, a term, that evokes quite similar images to the concept of norm entrepreneurs in the sense of Finnemore and Sikkink. With the general assumption that "ideas inform policies" be can clearly see that Finnemore and Sikkink stay in line with these basic research questions: "How are ideas disseminated? Why do some prevail over others? What is the life cycle of ideas? How do they evolve?"96

All considered researchers here highlight the importance of framing techniques, of not only providing expertise but also interpreting reality for decison makers. We will go into depth about interpretation, communication and framing techniques in chapter 5 of this paper.

Similar to Finnemore and Sikkink's favourable conditions in the world context of crises and shocks, Haas elaborates the concept of the condition of uncertainty in which

⁸⁹ Finnemore and Sikkink (1998), International Norm Dynamics, p. 898.

⁹⁰ Emanuel Adler and Peter M. Haas (1992), Conclusion: Epistemic Communities, World Order, and the Creation of a Reflective Research Program, in: International Organization, 46:1, p. 380.

⁹¹ Adler and Haas (1992), Conclusion: Epistemic Communities, p. 381., p. 380.

⁹² Haas (1992), Introduction: Epistemic Communities, p. 26.

⁹³ Ibid., p.26.

⁹⁴ Adler and Haas (1992), Conclusion: Epistemic Communities, p. 375.

⁹⁵ Martha Finnemore (1996), Norms, Culture, and World Politics: Insights From Sociology's Institutionalism, in: International Organization, 50(2), p. 326.

⁹⁶ Ibid., 327.

decision makers are far more likely to recurr to outside opinions and search for new ideas. He distinguishes two different situations:

"If there are no existing policies and decision makers are unfamiliar with an issue, not having treated it in the past, an epistemic community can frame the issue and help define the decision maker's interest. If no institutions yet exist in which responses to a given problem can be pursued internationally, the community can also provide a new institutional framework for dealing with the problem. In those ways, it can exert maximal influence during the policy innovation, diffusion and selection stages."

Peter Blan describes this phenomenon as "elasticity of demand for advice." 98

The role of epistemic communities exemplifies the social constructivist premise of the mutually constitutive actor and structure relationship. Human agency, in the form of a knowledge-based expert network, mediates between systemic conditions and norm environments, national interests and specific knowledge about complex cause-and-effect relationships. It helps identify salient points for negotiation and proposes specific policies by framing issues for collective debate.

In the following chapter, I will have a look at Global Footprint Network's organizational structure, its status and sources of income, to better assess its roles of information provision and convening experts in the international norm diffusion process.

4.4. Global Footprint Network

4.4.1. Organizational Structure, Status and Sources of Income

Global Footprint Network is a non-governmental organization based in Oakland, California. It has two small European offices in Zurich, Switzerland, and Brussels, Belgium. There are about twenty full-time employees and ten to fifteen research associates, mostly with a university background in science or social studies, communications or journalism. These numbers would fit Haas description of an epistemic community with less than 35 people. Global Footprint Network only partly resembles NGOs in its funding: approximately 35% of its income are generated by providing services for governments or partners like the WWF. In its work with nations, Global Footprint Network starts research collaborations with governments, during which workshops are held to make government

⁹⁷ Adler and Haas (1992), Conclusion: Epistemic Communities, p. 381.

⁹⁸ Haas (1992), Introduction: Epistemic Communities, p. 34.

officials and statistical offices familiar with the Footprint methodology. Technical assistance is provided while the data is being reviewed by the nations. Money is also generated by providing data for WWF's Living Planet Report or other reports for clients like the GTZ, some of which are directly produced at Global Footprint Network. Global Footprint Network seeks an open, transparent and consensual scientific research process. Poether with its global partners, binding standards for Footprint analysis are developed. Advancements in the methodology are also published in the journal Ecological Economics, which frequently features a wide variety of Footprint analyses and applications. In 2000, Bob Costanza, a leading scientist of Environmental Economics, conducted a special edition on the Ecological Footprint method and many conferences and gatherings have been held on the topic. Global Footprint Network itself has organized several conferences with internationally acclaimed scholars on the issue. This shows that Global Footprint Network's research is acknowledged in their research discipline and widely applied across various issue areas.

4.4.2. Identities and Roles of Global Footprint Network

A constructivist analysis of an actor would be insufficient without an account of its understanding of itself and its roles and tasks in its social context. Please note that I use the terms "identity" and "role" in a more general sense, not specifically referring to the concept of foreign policy identities and roles in International Relations theories. One of the hypotheses elaborated by Finnemore and Sikkink about the success of norms points to the importance of the promince of an actor for norm diffusion and international acceptance. Paralleling the distinction between ideas, which are beliefs held by individuals, and norms, which are intersubjective beliefs about appropriate behavior, ¹⁰¹ identity describes an actor's beliefs about itself, the self-definition of its existence. By contrast, roles or social identities refer to one's own identity in relation to other actors and the expectations posed by them on an actor's behavior. They also describe the scope of activities an actor engages in within a

⁹⁹ Mathis Wackernagel (2009), Methodological advancements in footprint analysis, in: Ecological Economics, 68, p. 1925.

¹⁰⁰ Mathis Wackernagel (2009), Methodological advancements in footprint analysis, in: Ecological Economics, 68, p. 1925.

¹⁰¹ Kathryn Sikkink (2002), Restructuring World Politics: The Limits and Asymmetries of Soft Power, in: Khagram, Sanjeev, Riker, James V. and Kathryn Sikkink (eds.), Restructuring World Politics: Transnational Social Movements, Networks and Norms, Minneapolis and London: University of Minnesota Press, p. 313.

specific system that they feel part of.

Sikkink defines roles or social identities as "sets of meanings that an actor attributes to itself while taking the perspective of others." Actors can have many social identities and roles and might follow the expectations of other social actors depending on which role they assume. Roles have a relatively stable character in some contexts. They provide the key link between social agents and structure and are part of the mutual constitution of agent and structure. Roles tell agents how to behave in a specific social structure and define their relation to other agents. During interaction, social identities are always in process and interests, that often follow from roles that an actor assumes, can be modified. Actors only learn through interaction how others see them. Interaction thus bridges the gap from identity to role. 103

The link between norms and identities can be found in Katzenstein's famous definition of norms: "Norms in the International Relations literature are defined as shared expectations held by a community of actors about appropriate behavior for actors with a given identitiy." There is a close link between norms and identities. Norms can help states define their identities and stabilize expectations and coordination needs with other actors.

Global Footprint Network tries to change state's identities and roles in a way that they fully accept the norm of sustainability, identify with it and incorporate it as a new mode of thinking that should find its application across all issue areas. To understand better how Global Footprint Network aims to change the international normative environment, it is important to look at Global Footprint Network's own identity and its roles to evalutate its prominence. This lies the basis for understanding its communications strategies in chapter 5 and recent framing activities like the "Ecological Creditor Initiative", described in chapter 7.

In the international political sustainability dialogue, Global Footprint Network seems to have two roles: (1) to provide decision-makers with a robust accounting tool to

¹⁰² Kathryn Sikkink (1993), The Power of Principled Ideas: Human Rights Policies in the United States and Europe, in: Goldstein, Judith and Robert O. Keohane (eds.), Ideas & Foreign Policy - Beliefs, Institutions and Political Change, Ithaca and London: Cornell University Press, p. 139-172.

¹⁰³ Ibid., p. 156-157.

¹⁰⁴ Sanjeev Khagram, James V. Riker and Kathryn Sikkink (2002), From Santiago to Seattle: Transnational Advocacy Groups Restructuring World Politics, in: Khagram, Sanjeev, Riker, James V. and Kathryn Sikkink (eds.), Restructuring World Politics: Transnational Social Movements, Networks and Norms, Minneapolis and London: University of Minnesota Press, p. 13.

make global and national data of natural resource consumption available to both nation states and the public, (2) to convene sustainability experts and nations to create a core group of states to promote, socialize and institutionalize the new sustainability norm with the Ecological Footprint. The second role is a rather new role for Global Footprint Network that extends the activities of a traditional nonstate norm entrepreneur.

4.4.2.1. Information and Interpretation of Science

Global Footprint Network sees its most important task as an information provider of a science that has not yet completely entered public debate and is underresearched at universities. Knowledge about ecological limits of our planet is comparatively scarce and astonishingly little research has been conducted into the planet's regenerative resources which sustain human life on Earth. Thus, Global Footprint Network sees itself as a neutral science-provider. In his talks, Mathis Wackernagel likes to emphasize that he wants to inform people about the state of the planet from an independent point of view. In his work with government officials, he affirms that as an alternative to simply telling nations what to do, he develops their knowledge about ecological realities to improve their choices. By making use of the scientific basis provided by Global Footprint Network for these discussions, decision-makers have a better stand to judge from than just using conventional metrics for the well-being of their residents like GDP. On this basis, Wackernagel hopes that governments actually make informed choices and use the knowledge provided to realign their policies towards the goal of sustainability. In this respect, Global Footprint Network is often described as a "policy forerunner".

4.4.2.2. Convening Power

A second, rather new role of Global Footprint Network is the role of a convening power. Unlike an official intergovernmental body, it does not have extensive resources to facilitate meetings or set international platforms. Nevertheless, it sees forming a new international network for countries as a good opportunity to promote "living within the means of nature". As Haas pointed out, epistemic communities have the chance to influence issue areas considerably if there is not another institutional platform which authoritatively claims

¹⁰⁵ Talk in Silicon Valley, March 2009.

to handle the issue in an appropriate way. 106

Global Footprint Network recently launched the "Ecological Creditor Initiative" which tries to convene ecological creditor nations to discuss strategies of resource conservation and collaboration with debtor nations, whose populations are dependent on the import of natural resources from creditor nations. In Global Footprint Network's view, this new role is an extension of its role as a provider of science and information. It considers itself a neutral and facilitating power when engaging with these nations. It refrains from direct policy recommendations or the issue of pricing of natural resources.

That Global Footprint Network sees itself as a convening power becomes evident when

That Global Footprint Network sees itself as a convening power becomes evident when reading the initiative's overview document:

"While we hope to be able to keep the Initiative running along this timeline, and are currently delivering within our timeline goals, our *role as convener* [TP] means the timeline outcomes, as well as specific phase tasks ultimately lie in the hands of the participating nations. As we continue to engage these nations in exploratory meetings, we expect this timeline will continuously be refined." ¹⁰⁷

Going back to the life cycle of norms as presented by Finnemore and Sikkink, it makes sense for Global Footprint Network to broaden their activities from information provision and framing to convening nations. Nations ultimately have to endorse the norm and persuade other states to adopt the norm in the second phase in a norm's life cycle: "Norm entrepreneurs (...) usually need to secure the support of state actors to endorse their norms and make norm socialization a part of their agenda." For this goal, opening up a forum for nation states seems a reasonable starting point.

5. Promoting the Norm of Sustainability

In the first part of this paper, I made the argument that Global Footprint Network advances the notion of sustainability by developing a scientifically robust accounting tool to measure human resource appropriation of ecological goods and services. It provides a monitoring tool to inform decision-makers about the current state of the natural world, tracks changes and monitors progress when changes occur. The norm of sustainability thus gets a clear, objective and measurable meaning with the Ecological Footprint. However, this is only one

¹⁰⁶ Adler and Haas (1992), Conclusion: Epistemic Communities, p. 381.

¹⁰⁷ Global Footprint Network (2009), Ecological Creditor Initiative – Part II – Summit Overview Document, Oakland: Global Footprint Network, Version 22/04/2009, p. 3.

¹⁰⁸ Finnemore and Sikkink (1998), International Norm Dynamics, p. 900.

part of Global Footprint Network's efforts. Global Footprint Network not only seeks to specify the norm of sustainability and give it a clear meaning but also to promote the norm on an international level. Like other norm entrepreneurs, they not only aim to enhance the information basis of rational actors, but also try to frame issues in a way that changes the current discourse towards their societal goal, sustainable living. The Ecological Footprint has the potential to initiate a global discussion on sustainable development on a scientifically sound basis, thus altering parts of the ideational structure of global politics. The Ecological Footprint and its often-praised "communicative power" appeal to many because of its easy-to-grasp visual metaphor of a human foot impacting life on Earth. Ecological limits and One-Planet-Living become realistic concepts.

To understand how Global Footprint Network promotes the norm of sustainability, this chapter first looks at the stage the norm of sustainability is currently in as developed in the life cycle theory of norm emergence by Finnemore and Sikkink. For every phase in norm evolution, Finnemore and Sikkink identify dominant mechanisms. Setting the Ecological Footprint in this framework helps design salient strategies for different action modes and respective stages in a norm's life cycle. Secondly, I will analyze Global Footprint Network's strategies in this respect. Global Footprint Network internally distinguishes three different communications strategies: (1) Top-Down, which appeals to decision-makers, (2) Bottom-Up, which tries to engage individuals, and (3) Buzz, which tries to capture the interest of the media and keep the story going. This chapter concludes with a constructivist approach to framing activities and general insights drawn from this strand of research.

5.1. Norm Tipping Points and Critical States

The Ecological Footprint, the norm of sustainability as perceived and defined by Global Footprint Network, can be set in the first phase of Finnemore and Sikkink's norm cycle (see Table 1 on p. 40), the emergence of a norm.

Finnemore and Sikkink point out that not much research has been done about when and why a norm cascade occurs and what constitutes a critical mass. ¹⁰⁹ Although "states are not equal when it comes to normative weight" it is generally assumed that at least one

¹⁰⁹ Finnemore and Sikkink (1998), International Norm Dynamics, p. 901.

¹¹⁰ Ibid., p. 901.

third of the states in the current state system have to accept the new norm to trigger a norm cascade. In the case of women's suffrage in the United States, this tipping point occurred at the end of the 1920s, when twenty states (of the sixty then existing states) accepted the norm after its first emergence in the 1840s. Accepting theses propositions, we would expect Global Footprint Network to aim for a similar number of states in the norm diffusion process. The Ten-in-Ten campaign by Global Footprint Network, which aims to get ten states to adopt the Ecological Footprint within ten years, seems to be a first start to triggering norm acceptance.

Table 1. Stages of Norms

	Stage 1 Norm Emergence	Stage 2 Norm cascade	Stage 3 Norm internalization
Actors	Norm entrepreneurs with organizational platforms	States, international organizations, networks	Law, professions, bureaucracy
Motives	Altruism, empathy, ideational commitment	Legitimacy, reputation, esteem	Conformity
Dominant mechanisms	Persuasion	Socialization, institutionalization, demonstrations	Habit, institutionalization

In: Finnemore and Sikkink (1998), International Norm Dynamics, p. 898.

Finnemore and Sikkink point out that not only the number of states is decisive but also that some states are more important than others to achieve norm tipping points. They consider theses states "critical states": "What constitutes a "critical state" will vary from issue to issue, but one criterion is that critical states are those without which the achievement of the substantive norm goal is compromised."¹¹² The question is if there are any critical states for Global Footprint Network in the process of norm acceptance. As overshoot is a global

¹¹¹ http://www.footprintnetwork.org/en/index.php/GFN/page/ten_in_ten_campaign/

¹¹² Finnemore and Sikkink (1998), International Norm Dynamics, p. 901.

phenomenon and ecological limits are constraining for nation states, for regional supply of natural resources and the global community, there are no critical states in the sense that action would be worthless without them. Neither are there any excuses for any state or population to wait for other states to start reducing their impact. The focus on present resource supply helps nations to not get entangled in questions of historical responsibility. States act because they see it in their own interest to act. However, some states might be critical because of their moral weight or because they function as role models for other states. The United Arab Emirates, the country with the highest per-capita resource consumption in the world (according to Global Footprint Network data from 2005), is also one of Global Footprint Network's most active research partners and could serve as a powerful role model for interested states. Nevertheless, in processes of socialization, which follow the process of persuasion to achieve a norm cascade, leader states are very important. The United States, both a highly consuming nation (second place after the United Arab Emirates) and a global leader of ideas in several fields, could be considered a vital partner for Global Footprint Network. Sikkink points out that the expectations of others and their authority are vital for the constitution of social identities and roles and thus the acceptance of new norms. She asserts: "The more significant these others are, as measured by the material and/or intersubjective dependency of the self upon them, the faster and deeper this process works." By process, she refers to the strategic interaction of agents, their mutual relationship and the constant production or reproduction of identities, norms and interests. 114 A letter from a Swiss government expert on the Swiss sustainability efforts written to the United Arab Emirates can have such effects on decision-makers in the initial phase of Footprint adoption. 115 The Swiss government successfully promoted the Ecological Footprint within Switzerland and introduced it into national statistics. The norm of sustainability has also found its way into the Swiss constitution.

5.2. Communications Strategies of Global Footprint Network

Communications strategies of norm entrepreneurs are usually directed at states to gain a critical amount of states to adopt the norm. Finnemore and Sikkink assert that states are the

¹¹³ Sikkink (1993), The Power of Principled Ideas, p. 157.

¹¹⁴ Ibid., p. 156-157.

¹¹⁵ A Swiss environmental politician wrote a letter to the United Arab Emirates while starting their cooperation with Global Footprint Network.

key addresses for transnational norm entrepreneurs. However, "up to the tipping point, little normative change occurs without significant domestic movements supporting such change." Global Footprint Network's three-fold communications strategy, which will be discussed below, thus seems to make sense from a theoretical point of view. The work with nations is supported by media outreach campaigns and educational initiatives to engage the public. Research partnerships and collaborations with other researchers and Footprint practitioners within the network help to improve the scientific basis of the calculations and the application of the concept into regional and national frameworks.

5.2.1. Top-Down

Global Footprint Network uses data provided from several international bodies, especially from UN FAOSTAT, UN Comtrade, and the International Energy Agency. 117 The core unit of all these data is nations. The Ecological Footprint data reported by Global Footprint Network is broken down by nations, and the National Footprint Accounts data, provided by Global Footprint Network, are the backbone for all Footprint applications. Nations are its natural key addressee; like questions about economic wealth and GDP, which are discussed at a national level, Global Footprint Network is convinced that the availability of natural resources should be discussed and managed at the national and regional level, supported by international frameworks. Government officials make decisions that affect their people's natural resource use considerably. In some cities, this is especially apparent: according to certain data, 70% of a resident's Footprint is determined by the city's infrastructure and living choices provided by the government. In the realm of natural resources, consumer choices are limited and depend heavily on the opportunitites that the state provides in transport systems, infrastructure, housing, energy sources, or product choices. The Ecological Footprint as an accounting tool supports governments to make sustainable decisions – should we expand the rail system or expand airports, subsidize regenerative energies or stay with coal and atomic energy, etc. Furthermore, it can help governments to focus on the supply-side, or the biocapacity side. It might emphasize the need for sustainable land-use or prevention of soil erosion. As all data on biological resources like crops and available grazing land are reported on a national basis, these accounts are the

¹¹⁶ Finnemore and Sikkink (1998), International Norm Dynamics, p. 902.

¹¹⁷ Global Footprint Network and the Community of Andean Nations (2009), Ecological Footprint and Biocapacity in the Andean Community, p. 2.

most robust data. Several governments have reviewed Global Footprint Network data so far and generally approved the results. The United Arab Emirates, Switzerland and Wales have adopted the Ecological Footprint as an indicator of sustainability and incorporated data into their national statistics. The European Commission selected the Ecological Footprint as a key biodiversity indicator for their sustainability target in 2010. Several other governments have started to review their National Footprint Accounts in research collaborations with Global Footprint Network, among them Belgium, Ecuador, Finland, France, Germany, Ireland, Japan and the United Kingdom. Local, regional and municipal applications have been conducted with Calgary (Canada), London (UK), Cardiff (UK), Milan (Italy), Marin County and Sonoma County (California), and the State of Utah. Many of these research cooperations involved the establishment of Ecological Footprint Calculators for citizens and the publishing of several reports. These helped to spark public debate about the pressure of the population on local and global biologically productive land and sea areas. The campaigns, often led by Global Footprint Network partners, mostly involved government commitments to reduce the Ecological Footprint of their municipality and use the Ecological Footprint as an indicator to track resource flows.

The Ten-in-Ten Campaign, launched in 2005, has the goal of institutionalizing the Ecological Footprint in at least ten key national governments by 2015. I quote from the "What We Do" document, available on the homepage: "Our aim is to have ecological accounting be given as much weight as economic accounting, and to have the Ecological Footprint become as prominent a metric as the Gross Domestic Product (GDP)." So far, six nations have given a firm commitment on the Ecological Footprint, and inroads have been made with twenty-three countries. The following quote reveals that the most important decisions may lie in the hands of government decision-makers, who often are responsible for decisions around long-lasting human infrastructure:

"Given the rapid escalation of overshoot and the slow rate at which human institutions, land-use patterns, infrastructure and populations change, the most critical steps must focus on decisions that will affect us for many years. Human-made infrastructure — homes, roads, office structures, power plants, dams, transportation — may last 50 or even 100 years." ¹²⁰

¹¹⁸ Global Footprint Network (2008), What We Do, Oakland: Global Footprint Network.

¹¹⁹ http://www.footprintnetwork.org/en/index.php/GFN/page/ten_in_ten_campaign/

¹²⁰ Mathis Wackernagel (2008), Our Planet: Banking on Tomorrow means Budgeting Today, Adbusters Article, p. 3-4.

This approach is usually coined "slow things first" and has become increasingly popular for environmental advisors today.

5.2.2. Bottom-Up

Global Footprint Network is a scientific body with outreach potential. It is not only interested in intensifying research about human appropriation of ecological services, but also in implementing change. Global Footprint Network does not aim to stay within academic circles and produce reports that sit on government's shelves. It tries to foster sustainability by actively inducing change and connecting to the media and the general public. In the Executive Summary of the Experts Meeting in Lima, one can read the following:

"What we need is a societal transformation: not only do governments have to change their policies, but there also has to be a change in mindsets and lifestyles. The success of the Initiative depends on a transformation of the way people think and act." ¹²¹

The work with governments has to be supplemented by engaging with individuals - persuading them that a sustainable world is possible and making them part of the evergrowing network of Footprint practitioners and multipliers of the Footprint concept. Even if consumer options are largely constrained by the possibilities governments provide us with, consumer behavior does have a huge effect in times of change and can force businesses and governments to change their policies. To engage with individuals directly, Global Footprint Network designed the "Footprint Calculator", which allows individuals to calculate their own Ecological Footprint within a couple of minutes on Global Footprint Network's homepage. Several Global Footprint Network partners also offer this service. The launch of the Calgary Footprint Calculator on Earth Day 2009 initiated a profile on CNN about the Ecological Footprint.

As most of the nations Global Footprint Network works with are democracies, individuals are not only important for Global Footprint Network in terms of achieving the substantive norm goal by reducing their own Ecological Footprint, but especially in

¹²¹ Global Footprint Network and the Community of Andean Nations (2009), Executive Summary: The Ecological Creditor Initiative; First Experts Meeting in Lima, 7th and 8th April 2009, p. 3.

¹²² http://www.footprintnetwork.org/en/index.php/GFN/page/personal_footprint/

¹²³ CNN profile, http://edition.cnn.com/video/#/video/tech/2009/04/25/levs.ecological.footprint.cnn, accessed on 26/04/09.

pressurizing their governments to adopt the Ecological Footprint as an accounting tool. The wallet card, a popular leaflet designed by Global Footprint Network, encourages citizens to push their governments to adopt the Ecological Footprint as a decision-making tool. The wallet card has been widely distributed and recently been translated into German.¹²⁴

5.2.3. Buzz

To foster sustainable decision-making on all levels, Global Footprint Network tries to make sure that the narrative continues to develop. As the goal is not only to shift the scientific dialogue towards the acceptance of the Ecological Footprint, but also to ensure that all-encompassing decisions are based on natural resource constraints, working with the media is very important. Events like "Ecological Overshoot Day" or "Earth Day" and the biennial publication of the Ecological Footprint data in the WWF Living Planet Report ensures media coverage on the topic and public involvement. The homepage provides many resources for journalists and the general public, and reports and additional information can be downloaded from the website. The CNN profile on "Earth Day" 2009 about Global Footprint Network's calculator shows that special international days like "Earth Day" or "Ecological Overshoot Day" help the media to focus on environmental issues and provide their audience with relevant information about it.¹²⁵

5.3. The Logics of Shaming, Blaming and Framing

The way Global Footprint Network presents its data and seeks persuasion is very significant. Norm entrepreneurs think clearly about how they frame issues. Shaming, blaming and framing are strategic communications strategies, pursued by rational actors for a specific purpose. Presenting scientific data in unusual graphs is a hook to spark people's interest and generate attention. It is thus highly strategic - a means to achieve interest for the goal of sustainable living.

The Hook

Global Footprint Network makes use of psychological insights to generate interest. Its most

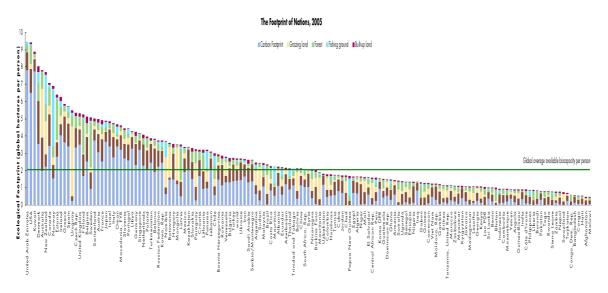
¹²⁴ Global Footprint Network (2009), German and English Wallet Cards 2009 – joint production with GTZ and the Bavarian National Park.

¹²⁵ CNN profile, http://edition.cnn.com/video/#/video/tech/2009/04/25/levs.ecological.footprint.cnn, accessed on 26/04/09.

famous graph, the Footprint of Nations, shows the Ecological Footpint of 150 Nations as columns next to each other. People are often immediately fascinated by this form of presenting scientific data and try to locate their country, find out why it has a bigger Footprint than other countries, what the world-average Footprint is and how big the Footprint should be if we want to stay within ecological limits. Thus, this graph succeeds in capturing people's attention and generates further questions. Consider Mathis Wackernagel on this graph:

"The reason we publish national Footprint numbers side by side is because we know that people like to compare themselves and beat each other out. On one level we say, this is just information that you need to know for yourself and it may be useful to you to know how other similar countries are doing. But as soon as we put countries in a ranking system, humanity's competitive nature comes forward and it no longer becomes about doing it because it's the right thing to do, it becomes about winning. What competitiveness really means is being able to succeed in the future, so that you're better able to provide for yourself and others." ¹²⁶

Graph 4. The Footprint of Nations, 2005, Global Footprint Network



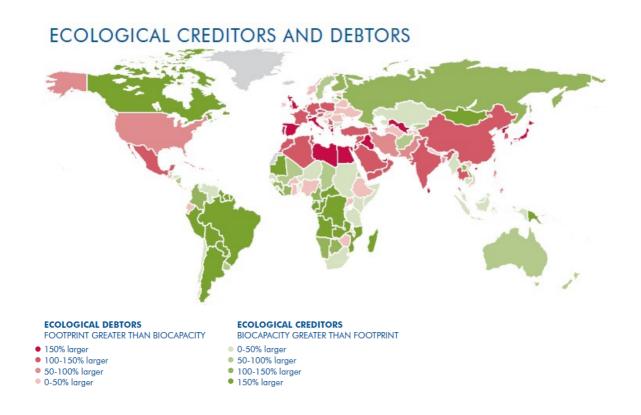
A second, rather new graph of Global Footprint Network, is the creditor and debtor map. By coloring countries green and red, it shows which countries have an ecological surplus, the green countries, and which have an ecological deficit, the red ones.

This is a tool to spark people's interest and generate questions about why countries like

¹²⁶ Interview with Mathis Wackernagel, 6th May 2009, Oakland.

Peru and Russia are alike, what it means to be in a national ecological deficit, where debtor nations get their resources from, etc. It thus helps to generate interest in scientific data and engages people with the idea of sustainable living. Global Footprint Network is aware of the risk of insulting people or polarizing discussions. However, the experience with presenting data in this way has given them the impression that some provocation is good to get people's attention. The unusual way of presentation is thus only a first hook to engage people in a longer and more detailed and sound discussion and deeper engagement with the data.

Graph 5. Ecological Creditor and Debtor Nations Map, 2005, Global Footprint Network



Shaming and Blaming

Shaming activities by norm entrepreneurs have been widely researched in constructivist norm analyses. The German research group on human rights norms, "Forschungsgruppe Menschenrechte", pins down a Bumerang-effect of shaming activities by transnational networks to scrutinize governments for human rights violations, self-entrapments by politicians and the successful institutionalization of a norm.¹²⁷ Coloring countries red and

¹²⁷ Forschungsgruppe Menschenrechte (1998), Internationale Menschenrechtsnormen, transnationale Netzwerke und politischer Wandel in den Ländern des Südens, in: Zeitschrift für Internationale

green and thus putting them into two different categories, with morally loaded terms "creditor" and "debtor", can clearly be perceived as a naming and shaming activity by Global Footprint Network. The ranking of countries in the Footprint of Nations and the HDI-graph, where countries are positioned along two dimensions, the HDI and the Footprint, go in the same direction and label countries as "good" or "bad", sustainable and unsustainable. Deitelhoff asserts that, by shaming activities, norm advocates establish new moral boundaries and constrict actors' behavior options. ¹²⁸

Framing

Several scholars have pointed out that "framing activities" are central to the successful emergence of a norm. Consider Finnemore and Sikkink:

"Norm entrepreneurs are critical for norm emergence because they call attention to issues or even "create" issues by using language that names, interprets, and dramatizes them. Social movement theorists refer to this reinterpretation or renaming process as "framing". The construction of cognitive frames is an essential component of norm entrepreneurs' political strategies, since, when they are successful, the new frames resonate with broader public understandings and are adopted as new ways of talking about and understanding issues. In constructing their frames, norm entrepreneurs face firmly embedded alternative norms and frames that create alternative perceptions of both appropriateness and interest." ¹²⁹

Frames are thus not ideas themselves but ways of packing and presenting ideas. 130

Global Footprint Network has long and extensive debates about how to present data to decision-makers and the general public. Framing data of environmental impact in national per capita averages and not absolute country numbers is indeed a very interesting framing device. Thus, people are not deduced to think "I do not have to reduce my Footprint because there are 1.3 billions Chinese who have a much bigger impact in total." Showing individual data makes people think about their own responsibility and "fair share", without Global Footprint Network actually pointing to this justice dimension. As mentioned in the chapter about the Ecological Footprint and climate change, to me it seems very remarkable that Obama employs Global Footprint Network's unconventional frame of per capita

Beziehungen, 5:1, p. 5-42.

¹²⁸ Nicole Deitelhoff (2006), Überzeugung in der Politik – Grundzüge einer Diskurstheorie internationalen Regierens, Frankfurt: Suhrkamp, Chapter 7, p. 252.

¹²⁹ Finnemore and Sikkink (1998), International Norm Dynamics, p. 897.

¹³⁰ Sidney Tarrow in: Sikkink (2002), Restructuring World Politics, p. 312.

numbers. He urges people to reduce their Footprint and to lead by example.¹³¹ Obama is also cited in Global Footprint Network's Annual Report, saying that "the choice we face is not between saving our environment and saving our economy – it's a choice between prosperity and decline."¹³² Thus, he affirms that the capacity of the planet is the basis of human life and human economy. This transcends conventional wisdom and ideas about nature as something separate from human society. It also reflects Global Footprint Network's integrated approach of nature and human life on Earth. In the new report about the Ecological Creditor Initiative, Global Footprint Network asserts: "The purpose of the Initiative is to show the interdependence between a country's biocapacity, its economy and ultimately, the well-being of its people."¹³³

Framing activities aim to provide their audience with a new context for additional information to gain a more complete picture of and shed new light on a complex problem. They sometimes also try to redefine actors' self-interest. Finnemore and Sikkink point out that one strategy of norm entrepreneurs is to help people discover hidden interests and provide a framework that acknowledges them. In the case of women's suffrage, something that seems entirely natural to us today, even women had to be persuaded that voting rights are actually in their own interest.¹³⁴

Probability of Framing Success

Payne's article "Persuasion, Frames and Norm Construction" (2001) is motivated by the hope of coming up with a robust analysis of framing processes to predict the probability of norm acceptance. Payne defines frames as follows:

"A frame is a persuasive device used to "fix meanings, organize experiences, alert others that their interests and possibly their identities are at stake, and propose solutions to ongoing problems." (Barnett 1999) For the purpose of norm-building, frames provide a singular interpretation of a particular situation and then indicate appropriate behavior for that context." [135]

However, he cannot reveal causality in norm building processes and concludes: "the

¹³¹ Cp. White House Documents and Publications, Speech by President Obama at Strasbourg Town Hall, 4 April 2009, p. 8.

¹³² Global Footprint Network (2009), Annual Report, p. 9.

¹³³ Global Footprint Network and the Community of Andean Nations (2009), Ecological Footprint and Biocapacity in the Andean Community, p. 1.

¹³⁴ Finnemore and Sikkink (1998), International Norm Dynamics, p. 899.

¹³⁵ Payne (2001), Persuasion, Frames and Norm Construction, p. 39.

potential resonance of a contested frame can be virtually impossible to calculate in advance of norm emergence."¹³⁶ The questions he would like to answer for real-world advocates seeking normative change are indeed similar to the challenges Global Footprint Network faces. ¹³⁷ Among them are the following: "Which arguments shall norm entrepreneurs employ? Are proven master frames available that might secure victory? How might ideational appeals be coupled with material leverage? Put most simply, which strategies should norm entrepreneurs select?"¹³⁸

Frame Bridging

A common technique of norm advocates is "frame bridging" or "frame amplification" which seeks to connect the new normative framework to an already existing norm to expand the domain to which these norms apply. This is grounded in psychological insights of the cognitive consistency theory that suggests the human brain remembers new information better if the new information connects to established knowledge. Finnemore and Sikkink also point to this issue in their hypotheses about norm acceptance. They conclude that it is more likely for a norm to get accepted if the normative framework ties in with existing frameworks or existing norms.

Framing activities are a central element of persuasion.¹⁴¹ Global Footprint Network's strategies in persuasive discourses and theoretical approaches to persuasion are elaborated in the next chapter.

6. Persuasive Discourses

The foregoing chapters have pointed to the crucial role of norm entrepreneurs for the creation of new norms and discourses. Similar to a distribution of capabilities and power, which constitute the international system according to realists, the "international distribution of ideas" is decisive for the international order as perceived by

¹³⁶ Payne (2001), Persuasion, Frames and Norm Construction, p. 52.

¹³⁷ Ibid., p. 48.

¹³⁸ Ibid., p. 48.

¹³⁹ Snow and Benford in: Khagram et al. (2002), From Santiago to Seattle: Transnational Advocacy Groups Restructuring World Politics, p. 16.

¹⁴⁰ Payne (2001), Persuasion, Frames and Norm Construction, p. 43.

¹⁴¹ Ibid., p. 39.

¹⁴² Wendt in: Sikkink (2002), Restructuring World Politics, p. 302.

constructivists. Norm discourses provide structure in the constructivist world and provide a manifestation of and framework for new ideas. ¹⁴³ In the conclusion to "Restructuring World Politics: Transnational social movements, networks, and norms", Kathryn Sikkink asserts:

"This capacity of nonstate actors to contribute to restructuring world politics by altering the norm structure is similar to what Keohane and Nye have called "soft power" (1998), or what Dryzek (1999) and Habermas (1986) have called "communicative power". These forms of power rely on the persuasiveness of information or communication."

Norm advocates shape the terms of debate, the agenda and the very manner in which issues are perceived and discussed. They create structure by establishing a dominant discourse about certain issues. In the following, I would like to analyze Global Footprint Network's discourse and communicative power. Global Footprint Network's discourse around the norm of sustainability is interesting to look at because there has been a clear shift from a moralistic discourse in the first years, talking about the "fair share", distributing buttons urging people to "Reduce Your Footprint", to a more cautious discourse appealing at people's self-interest. Chapter 6.2. will look at the related concept of persuasion.

6.1. Global Footprint Network's Discourse on Sustainability

This chapter relies heavily on an interview conducted with Mathis Wackernagel in May 2009, Oakland, and other conversations with him at Global Footprint Network in spring 2009. I would like to quote three of the interview questions at full length because they provide a remarkable insight into Global Footprint Network's discourse strategies:

"Tatjana Puschkarsky: Is it useful to rely on people's altruistic feelings to spark societal change?

Mathis Wackernagel: If we want to see change happen we can't depend on altruism. Altruism can erode too easily, and people don't want to be blamed for the misery of the world. Nobody likes to be told what to do. The language used to tell someone that they need to wake up or live their life differently can be deeply offensive. Regardless of the intention, making sustainability a moral issue risks making people feel stupid or insensitive.

Tatjana Puschkarsky: Many international NGOs in this field pursue a moralistic approach. How come Global Footprint Network is different?

¹⁴³ Harnisch (2003), Theorieorientierte Außenpolitikforschung, p. 338.

¹⁴⁴ Sikkink (2002), Restructuring World Politics, p. 303.

Mathis Wackernagel: I once had a really eye-opening conversation with an Italian politician. He pointed out to me that a moralistic approach risks putting people off, that people like to break the rules, and that it shifts the sustainability discussion to the domain of nice things to do after 5 pm or on Sundays. Another issue to consider is that, when a sustainability fact—such as the fact that the planet has limits—is seen as a moral concept, it undermines societal negotiation. What makes negotiations work is that there are two sides and both sides have a strong hand to play.

Tatjana Puschkarsky: Are sustainable investments good for us in the future?

Mathis Wackernagel: In business they never say profit is good or bad because it's self-evident. With regard to ending overshoot, it's no longer about whether or not to get the solutions online, it's about how and how fast we can do it. It's about making sure we don't get squeezed off the planet. The argument that it's too long of a timeframe to deal with is no longer relevant. It's not about the next generation or unborn children. It's about the current generation. It's about us, right now."¹⁴⁵

This change from one discourse to another is not at all surprising. Payne points out that "advocates might strategically abandon one frame and employ another to seek the same end result." The shift in Global Footprint Network's strategy is also due to a change in the state of the world. At the time of the Brundtland commission, sustainability might have seemed like something forward-looking and moralistic people should be concerned about. Today, however, natural resource calamities are happening right now, as can be seen in Haiti or Sudan. The current generation can expect to witness severe weather conditions due to accelerated climate change and food and water scarcity. People traditionally concerned about security issues get interested in the ecological crisis and its consequences on migration, livelihoods and violent conflicts. Thus, Global Footprint Network might have changed the directions of its own discourse not only because of new insights about moral preaching and the experience that it did not work well, but also because the facts, and the real world, have changed.

Going back to Sikkink's explanation on how social interaction shapes preferences, the following quote provides interesting insights about self-interested behavior:

"An evolution of cooperation might lead to an evolution of community. This can occur as an unintended consequence of actions carried out merely to realize self-interests, or as a result of a conscious strategy of collective self-transformation." ¹⁴⁷

¹⁴⁵ Interview with Mathis Wackernagel, 6th May 2009, Oakland.

¹⁴⁶ Payne (2001), Persuasion, Frames and Norm Construction, p. 45.

¹⁴⁷ Sikkink, Kathryn (1993), The Power of Principled Ideas, p. 157.

Global Footprint Network's discourse strategy seems to count on these unintended consequences of actions of self-interest that ultimately lead to a community of sustainable societies. In several conversations, Mathis Wackernagel compared his approach with the "invisible hand" by Adam Smith, where everyone believes to work in their self-interest. While believing to further their self-interest, actors exchange goods, cooperate and promote the common good.

The "self-interest" discourse has the advantage that it is the prevailing discourse at the moment that is easy to link into. This has been proven to be decisive for successful norm promotion activities, as "efforts to promote a new norm take place within the standards of "appropriateness" defined by prior norms." One could also see it as a redefinition of national self-interest, that broadens states interests of security and gaining geological resources for their markets, to the maintainance of natural resources for their population and the well-being of the world. Lumsdaine points out that "national self-interests emerge from a social process of choice and self-definition whose character and objectives are influenced by people's basic values and views of life." If Global Footprint Network succeeds in setting a new frame for national self-interest and fills it with new meaning, the probability that states act according to this new frame is high.

Furthermore, there is an interesting connection between the "discourse of self-interest", which leaves people with the choice to act or ignore new information, and Global Footprint Network's new role as a "convening power", for which neutrality and moral distance is very important:

"Tatjana Puschkarsky: What is Global Footprint Network's approach in convening nations?

Mathis Wackernagel: My life's work is dedicated to developing and disseminating a sustainability tool that is morally neutral, rooted in science, and allows people to test things and question for themselves. We provide data and resources and say, if this information serves your self-interest than great, and if it doesn't, then don't use it. My ambition is always to present the data as unbiased as possible and I am very cognizant of not preaching. We need to be neutral, and most importantly, invitational."¹⁵⁰

This approach distinguishes Global Footprint Network from other advocacy organizations

¹⁴⁸ Finnemore and Sikkink (1998), International Norm Dynamics, p. 897.

¹⁴⁹ Lumsdaine (1993) in Beth A. Simmons and Lisa L. Martin (2002), International Organizations and Institutions, in: Walter Carlsnaes (ed.): Handbook of International Relations, London: SAGE, p. 198.

¹⁵⁰ Interview with Mathis Wackernagel, 6th May 2009, Oakland.

in the environmental field. In a talk with Oxford business students, Mathis Wackernagel points out that "providing solutions is often oppositional." In his opinion, they either get rejected or people lose interest and get idle because they get the impression that the solutions are already out there. He prefers an invitational over an argumentative approach. The first goal of the "Ecological Creditor Initiative" is thus to spark an open dialogue between nations and to reframe the international environmental debate. Chapter 7 about the "Ecological Creditor Initiative" gives an example of Global Footprint Network's recent framing activity and new role as a convening power.

6.2. Persuasion

As a norm entrepreneur without authoritative commitment, Global Footprint Network is not able to coerce agreement to a new norm. ¹⁵² When dealing with powerful states, it must persuade. Communication and persuasion are thus its most important resources of power.

I would like to draw attention to the definition of persuasion by Sikkink which underscores the fundamental role of persuasion activities in the constructivist framework:

"Persuasion is central to most of the empirical case studies about normative influence and change. It is the mission of norm entrepreneurs: they seek to change the utility functions of other players to reject some new normative commitment. Persuasion is the process by which agent action becomes social structure, ideas become norms, and the subjective becomes the intersubjective." ¹⁵³

Like the emergence of norms and ideas, however, intrapsychic processes of persuasion, which imply a change of an actor's preferences, are hard to observe and verify.¹⁵⁴

In the foregoing chapter, I elaborated the concept of framing that can be perceived as purposeful communication or a manipulative practice of strategic social interaction. A hook, shaming, blaming and framing activities provide the first step on the long road to persuasion. Payne defines persuasion as following: "By definition, persuasion occurs when target preferences change in response to a sender's appeal." For successful persuasion

¹⁵¹ Talk at Global Footprint Network in Oakland in April 2009.

¹⁵² Finnemore and Sikkink (1998), International Norm Dynamics, p. 899.

¹⁵³ Ibid., p. 914.

¹⁵⁴ Tine Hanrieder (2008), Moralische Argumente in den Internationalen Beziehungen – Grenzen einer verständigungsorientierten "Erklärung" moralischer Debatten, in: Zeitschrift für Internationale Beziehungen, 15:2, p. 176.

¹⁵⁵ Payne (2001), Persuasion, Frames and Norm Construction, p. 46.

activities, the soundness and clarity of scientific data, the "better argument", play a significant role. But as in every communicative process, the sender's appeal, its moral weight and authenticity, role and approach are of immense importance. Consider Finnemore and Sikkink on this issue:

"This process is not necessarily or entirely in the realm of reason, though facts and information may be marshaled to support claims. Affect, empathy, and principled or moral beliefs may also be deeply involved, since the ultimate goal is not to challenge the "truth" of something, but to challenge whether it is good, appropriate, and deserving of praise."

Global Footprint Network's neutral role and invitational approach, the shift from a moralistic to a more rational discourse of self-interest thus seem very important for the probability of successful persuasion activities. In a conversation with Mathis Wackernagel, he pointed out to me how fast he notices if someone clicks in with Global Footprint Network's approach and shares its basic premises and norm foundations. Getting along well with discourse partners helps conveying the idea of the Ecological Footprint and reducing complex information to important first messages.¹⁵⁷

There has been an extensive amount of research and debate about persuasion processes in International Relations theories. I do not want to repeat the complex discussion here but draw attention to a few single issues that come to mind when analyzing Global Footprint Network's persuasion activities.

Many researchers following the social-constructivist research program recur to Habermas "Diskursethik" or "Theory of Communicative Action" to explain persuasion processes. For norm entrepreneurs, I am very doubtful to apply this concept. One of Habermas' important premises is that discourse partners are open for negotiating their beliefs. Norm advocates, including Global Footprint Network, are not prepared to have their normative premises challenged – they are fundamentally convinced of the norm they want to promote. They might be willing to discuss the norm with discourse partners or have the strategy to present themselves as open and neutral – but deep down, they have an ideational commitment for their norm which serves as a motivation for all their actions. In a review of research on persuasion, especially Deitelhoff's work, Tine Hanrieder concludes

¹⁵⁶ Finnemore and Sikkink (1998), International Norm Dynamics, p. 899.

¹⁵⁷ Conversation with Mathis Wackernagel in April 2009

¹⁵⁸ Hanrieder (2008), Moralische Argumente in den Internationalen Beziehungen, p. 180.

that the concept of persuasion employed by International Relations researchers is a truncation of Habermas concept of "Verständigung" or "mutual agreement through the exchange of arguments". 159

Furthermore, actors might not be morally convinced of a new norm, but will rather subject to a new norm because of a variety of instrumental reasons. Global Footprint Network tries to change the current framework to establish material leverage and market incentives and link the issue to money, trade or prestige to supplement persuasion processes with coercive compellence.

In her account of the creation of the International Criminal Court, Deitelhoff asserts that norm entrepreneurs act mostly strategic at the start, as pointed out earlier in the chapter about shaming, blaming and framing, and that persuasion processes are actually very limited and only occur in special circumstances, so called "islands of persuasion". ¹⁶⁰

7. The "Ecological Creditor Initiative"

The purpose of this chapter is to explore the mechanism's of Global Footprint Network's framing activities and its new role as a convening power in more detail.

Global Footprint Network has published the Ecological Footprint of 150 countries in a ranking for a couple of years. Only recently, they provided another interesting graphic frame for their data – the green and red ecological creditor and debtor map. Green creditor countries are characterized by an ecological reserve or surplus. Their Ecological Footprint is smaller than the biocapacity available within their own national borders. Prominent creditor countries are Latin American countries, Canada, Mongolia, Russia, Australia and New Zealand. Red debtor countries have an Ecological Footprint that is bigger than the available national biocapacity. They have an ecological deficit, which is only possible for a short time by liquidating their own natural capital, importing resources from abroad or using collective goods like the global atmosphere to absorb their CO2 emissions.

¹⁵⁹ Hanrieder (2008), Moralische Argumente in den Internationalen Beziehungen, p. 180. Cp. Deitelhoff's German definition of persuasion: "Überzeugung soll einen Prozess auszeichnen, in dem die moralische *Einsicht* staatlicher Akteure in einem Diskurs mit Normunternehmern eine Norm generiert." In: Nicole Deitelhoff (2007), Was vom Tage übrig blieb: Inseln der Überzeugung im vermachteten Alltagsgeschäft internationalen Regierens, in: Niesen, Peter and Benjamin Herborth (eds.): Anarchie der kommunikativen Freiheit. Jürgen Habermas und die Theorie der Internationalen Politik, Frankfurt: Suhrkamp, p. 27.

¹⁶⁰ Nicole Deitelhoff und Harald Müller (2005), Theoretical Paradise – empirically lost? Arguing with Habermas, in: Review of International Studies, 31, p. 168.

The following chapter analyzes how Global Footprint Network designs this new framing process and how they establish themselves as a "convening power".

7.1. Initial Goals and Strategies, first Steps

Global Footprint Network has partnered with the Community of Andean Nations in this initiative. The homepage conveys the following messages about the overall goal:

"The Ecological Creditor Initiative Global Footprint Network has started in partnership with the Community of Andean Nations (CAN) aims to convene ecological creditor nations and initiate a dialogue on the growing significance of biocapacity. In an ecologically-constrained world, nations will start to recognize the advantage of aligning their priorities with their natural wealth in order to ensure human health and well-being, secure lasting economic success, and avoid resource calamities." ¹⁶¹

The initiative proposes to go "beyond carbon" and to disseminate the knowledge that the global ecological crisis is not just about climate change, but that the atmospheric catastrophe is just one face of the bigger crisis of the biosphere.

The initiative runs along the following timeline: (1) the launching phase from December 2008 - July 2009, (2) the second phase with international, in-depth work sessions, the publishment of a report and first findings with outreach to a greater audience, culminating in a media event in Copenhagen, (3) and the third phase with the presentation of findings at a range of international forums and conferences, among them the OECD and UNESCO, and the Summit or presidential gathering on biocapacity, titled "Securing Well-Being in a Resource-Constrained World" in the second half of 2010.

During my research internship from February till May 2009, I had the chance to attend some strategic meetings for the initial launching phase. My insights are mostly drawn from these discussions, which, together with the first experts meeting in Peru in April 2009, provided the groundwork for the initiative. The empirical material consists of meeting notes, overview documents, internal documents, email-discussions, official proposals and executive summaries to the Andean Community and invitees to the first experts meeting in Lima.

In the following, I would like to concentrate on the risks, concerns and possible

¹⁶¹ http://www.footprintnetwork.org/en/index.php/GFN/page/ecological_debtors_and_creditors/

outcomes of the initiative as perceived by members of Global Footprint Network in March 2009. The analysis will show how aware and cautious Global Footprint Network is about its messaging, timing and strategic coalition-building.

The following goals and possible outcomes were mentioned in the discussions (when asked "Two years from now, if the Ecological Creditor Initiative is successful, how will the world change?"):

- the terms creditor and debtor nations are as widely used as the terms industrialised and developing countries,
- people understand the back-side of the Ecological Footprint, the Earth's biocapacity,
 and start to manage and monitor it precisely,
- living within the Earth's ecological limits is seen as new goal, paralleling the growth model that is focused on an increase in GDP,
- the emergence of new development paradigms, new and different ways of each country to cope with its increasing ecological resource and service constraints,
- a shift in development priorities "from diamonds to women", 162
- the establishment of an international forum for coordinating efforts to preserve biocapacity that provides a safe platform for all countries to engage in.

In terms of norm promotion, these goals reveal Global Footprint Network's identity and self-understanding as a norm entrepreneur. Most of the goals mentioned focus on a change of the normative structure: the distinction between developed and developing countries, the concept of (sustainable) development, the growth model, etc. All these goals fall into the classic categories of goals for norm entrepreneurs, which generally aim to influence global dialogue about certain issues and frame them in a way that only some solutions are acceptable. The ultimate goal, the establishment of an international platform to engage with nations about ecological services constraints points to Global Footprint Network's new role as a "convening power" that transcends the role of an information provider and the mere framing of issues.

Internal discussions were also held about the risks of the initiative and participants came up

with the following concerns (of which not all are mentioned here):

- the provocative hook, the green and red creditor and debtor map, might polarize countries,
- Global Footprint Network does not want to establish or be identified with efforts for a new "OPEC" for biocapacity,
- the language used (creditor and debtor) might be too strong, attract the wrong analogies
 (financial health),
- the underlying data, the Footprint of Consumption, 163 might not be accepted by states who are traditionally more interested in the availability of resources for production, which would be mirrored in the Footprint of Production.

Participants agreed that the international political discourse needs some provocative hook and polarization to attract the attention of decision-makers. On a second level, however, when a first interest for the data is established, additional layers of complexity and countryspecific reasons for the categorization need to be explained. The risk to form a strong core group but to exclude other interested nations emphasizes the need of careful handling in the selection of alliances and is revealed in the discussion about the first expert meeting, further elaborated below. Going back to Finnemore and Sikkink's life cycle of norms, the question is how big and coherent the first core group of states has to be to convince other nations to be part of the dialogue about preserving ecological services. The risk that the language might be too harsh or uninviting is a classic problem of framing processes. On the one hand, a new norm has to connect to an existing discourse (e. g. about financial health), on the other hand, it introduces a new framework and cognitive concept, that often cannot be expressed in conventional metaphors. There is still debate about the basic terms ecological creditors and debtors because of their complex meaning, financial analogy, and long, not very catchy quality. Is it better to invent a new term that has to be explained to everyone? Or is it better to work with other analogies than with metaphors from the currently dominant, economic paradigm that is to be questioned? The question about underlying data is an interesting issue within the whole debate about framing because it shows that it is not only about the presentation of new information, but also about the selection of information and how this influences the messaging connected to it.

¹⁶³ This concept will be discussed below

The Footprint of Consumption is the Footprint that is generally reported by Global Footprint Network in its publications and is understood by its audience. It is calculated by subtracting a nation's exports and adding its imports to gain a substantive picture of how many resources (expressed in land area) a population of a specific country requires to maintain its level of consumption. The Footprint of Production contains all resources used in one country for the production of goods and the provision of services, whether these goods and services are used within or outside its borders. Looking at these underlying assumptions, the Footprint of Production and the Footprint of Consumption are two entirely distinct approaches. Plotted against a nation's biocapacity as in the creditor and debtor map, however, not many countries change their color using the two different approaches. A nation's level of industry and exports generally mirrors a population's living standard and resource consumption. Nevertheless, it is a substantial difference in the research question that might alienate nations in their first encounter with the data. There is an ongoing internal debate at Global Footprint Network about which Footprint to use in the creditor and debtor map, which is directed at nation state's management of biocapacity.

7.2. New Alliances – Convening States

To bring nation states and experts together to provide a safe forum to discuss ecological resource constraints is the biggest strategic goal of the "Ecological Creditor Initiative". The first expert meeting on 7th and 8th April 2009 in Lima serves as a reference point here to analyze Global Footprint Networks role in convening nations and facilitating dialogue. The blog of Global Footprint Network's homepage reveals the following about this first expert meeting:

"Kicking off an initiative that could redefine how we value and negotiate resources in the 21st century, key policy experts and opinion leaders met in April in Lima, Peru, for the first workshop of Global Footprint Network's Ecological Creditor Initiative. World Bank representatives, policy experts and opinion leaders met with representatives from Global Footprint Network and the Community of Andean Nations to begin a series of workshops on the growing significance of biocapacity and its potential for competitive advantage in a resource-constrained world." ¹⁶⁴

¹⁶⁴ http://www.footprintnetwork.org/en/index.php/GFN/blog/

The meeting was prepared in close conjunction with the Community of Andean Nations. In daily phone conferences during March 2009, the basic goals and the agenda of the meeting were elaborated, it was discussed who should be invited, where the meeting should take place, which language the meeting would be in, who should moderate the workshop, if there should be a formal or informal dinner with ambassadors, what the outcome of the meeting should be, if there was going to be a draft document, what the pre-reading material of participants should be like, if they would get a honoraria, how they could be engaged further, etc. Looking back to the discussions, I perceived Global Footprint Network's role as that of a relatively neutral facilitator. During phone conferences, both Mathis Wackernagel and Jennifer Mitchell were very open for suggestions and it was clearly a joint planning process in which no party had clear pre-defined priorities to pursue and achieve. Convening experts and facilitating a dialogue can be seen as an extreme form of framing within the strategic persuasion activities of Global Footprint Network. Although neutral in the debate, by setting the agenda for the meeting, deciding on the invitees and sending out pre-reading material, Global Footprint Network establishes a framework of accepted practices and beliefs. By setting the agenda and moderating the discussion, it only gives room for some but not for other topics and ideas. Even if Global Footprint Network is very open for other ideas, comments and issues, this can definitely be perceived as a "framing activity" that is crucial to advancing the initiative.

7.3. Reframing

During the preparation of the first expert meeting in Peru and the drafting of the documents sent as invitations of the joint initiative, it became apparent that representatives of the Community of Andean nations did not share parts of the communications strategies of Global Footprint Network. After a moralistic discourse in the first years of the existence of Global Footprint Network there has been a conscious shift towards the more rational language of self-interest and competitiveness. This goes hand in hand with presenting Global Footprint Network as a neutral science provider that enhances an actor's information basis without explicitly telling them which policy path and actions to follow on. The focus and explicit use of terms like "economic competitiveness" and "economic strength" seems to have astonished some at the Community of Andean Nations who expressed concerns about the ideology behind using these terms. Global Footprint Network purposefully uses

this language to enter a specific discourse without believing in its basic premises. As Global Footprint Network's underlying propositions are about planetary wealth and not the individual success of nations, it points towards a strategic framing decision of Global Footprint Network. Using these terms is a strategic means to enter the international political dialogue that makes extensive use of these terms and a rationalistic discourse of self-interest and industrial competitiveness. The experience with the Andean Community has shown, though, that messaging always has to keep the addressee in mind. In the case of international norm promotion and a global audience, this is an immense challenge. On a theoretical level, Chong reflects on this central role of recipients in framing processes: "the magnitude of framing effects depends not only on the strength of the frame, but also on the context in which it is presented and the characteristics of the recipient of the frame." And even more precise: "People's value priorities were a significant predictor of their policy preferences across framing conditions." Thus, value propositions of the Andean Community are decisive for norm acceptance.

Another controversial issue that came up in the collaboration with the Andean Community was about the title of the initiative. Whereas Global Footprint Network uses the title "Ecological Creditor Initiative", the Andean Community internally uses the title "Biocapacity Initiative" or "La Iniciativa sobre Biocapacidad". They argue that the Spanish version of "Ecological Creditor Initiative", "La Initicativa sobre Acreedores Ecológicos", is too long and that the Spanish translation of "creditors", "acreedores", is less used than the English term "creditor" and does not resonate with many people. Moreover, "La Iniciativa sobre Biocapacidad" connects well to their already existing environmental programs and makes it easier for them to promote the initiative within their own governments and bureaucracies. Global Footprint Network acknowledges these points and also sees the concept of biocapacity as at the core of this initiative. Whereas Global Footprint Network's messaging of the last years focused more on the demand-side (reducing the footprint), the supply-side (increasing and maintaining biocapacity) now gains more attention. Nevertheless, many at Global Footprint Network are convinced that it would not be persuasive to coin the initiative "Biocapacity Initiative", because it might shift the initiative towards an environmental-only dialogue, led by environmental experts, and would not

¹⁶⁵ Dennis Chong and James N. Druckman (2007), Framing Public Opinion in Competitive Democracies, in: American Political Science Review, 101:4, p. 638.

¹⁶⁶ Ibid., p. 651.

initiate systemic change. To gain this conventional audience, connecting back to the dominant market paradigm and using financial anologies might be more adequate. However, the title "Ecological Creditor Initiative" only speaks to creditor countries and might enhance the polarization risk discussed above. So far, both organizations use their preferred term on their respective homepages and statements. Joint statements like the English Executive Summary of the first expert meeting carry the title "Ecological Creditor Initiative", whereas the internal long summary in Spanish has the title "Iniciativa sobre Biocapacidad".

The "Ecological Creditor Initiative" shows how Global Footprint Network extends its traditional role of a provider of science to convening nations. This is a difficult task and huge effort for norm entrepreneurs which are not international organizations and do not have a platform and the necessary resources at their disposal to bring states together. It also involves gaining new expertise in communication with decision-makers and facilitating high-ranking meetings. Nevertheless, their neutral and invitational approach, backed up by robust scientific knowledge, makes them a persuasive convening power.

8. Conclusion

This paper is concerned with the question of how Global Footprint Network advances the norm of sustainability on a global level. Theoretical concepts from constructivist norm research, especially the work of Finnemore and Sikkink, have been combined with empirical insights gained by closely observing Global Footprint Network. I have provided two explanations for the basic research question, which are strongly interrelated. Global Footprint Network works on the scientific development of the Ecological Footprint to provide a robust accounting tool of human appropriation of ecological services. It thus specifies and *operationalizes* the fuzzy and abstract notion of sustainability and moves the concept from an ambiguous idea to a solid indicator, which provides decision-makers with reliable information. This part of Global Footprint Network's activities engages with the scientific community and Footprint practitioners all around the world and works with international organizations, governments and statistical offices to refine the data. On another level, Global Footprint Network *promotes* the norm of sustainability by actively engaging with the public through reports, publications, talks and the Footprint calculator,

and by designing media outreach campaigns. Thus, they try to shift the global dialogue towards sustainable living. Mathis Wackernagel and Susan Burns affirm in the Annual Report 2008 that they "are sparking a global conversation about the role resource limits will play in shaping our economic future." ¹⁶⁷

Environmental experts agree that the Ecological Footprint is one of the most aggregate indicators for sustainability issues. Describing the human impact on the Earth's basic living systems, it is often chosen for environmental studies and reports or presented in combination with other indicators for more comprehensive publications. Global Footprint Network provides an excellent scientific platform to advance the Ecological Footprint and gain access to relevant audiences and the media to diffuse the norm of sustainability. Finnemore and Sikkink's hypotheses about successful norm diffusion activities suggest that decision-makers are more open to outside information in times of uncertainty like economic recessions. Presenting itself as a neutral provider of information, an epistemic community, Global Footprint Network aims to improve people's choices and decisions without being moralistic. Their invitiational approach suits their new role as a convening power to open up forums with different sustainability experts and decisionmakers centering on the discussion of ecological resource limits. An analysis of Global Footprint Network's communications strategies has shown that their three-fold approach appealing to governments, individuals and the media - proves successful, as broad resonance with domestic movements is decisive in the first stage of norm emergence. 168 Their framing activities range from provocative hooks like the ranking of countries in the "Footprint of Nations" graph to shaming and blaming activities like the coloring of nations in the "Ecological Creditors and Debtor Nations" map. The presentation of data in per capita and not absolute country numbers is a powerful framing device aimed at changing the current discourse in environmental negotiations and inspiring individual action. Using financial analogies and metaphors proves decisive for Global Footprint Network's framing activities to link into the conventional neo-liberal discourse and gain access to relevant decision-makers. Finnemore and Sikkink point out that new norms have to be established within the dominant discourse produced by already existing norms. Providing a revolutionary framework and presenting novel ideas and data but staying within the

¹⁶⁷ Global Footprint Network (2009), Annual Report 2008, p. 2.

¹⁶⁸ Finnemore and Sikkink (1998), International Norm Dynamics, p. 902.

dominant discourse of self-interest poses enormous challenges for Global Footprint Network's communications strategies. The change in its discourse strategy, from a moralistic discourse to a rationalistic discourse of self-interest, proves its highly strategic orientation, which employs certain means for ideational ends. Genuine processes of persuasion in the sense of Habermas "Theory of Communicative Action" appear to be highly limited in the work of Global Footprint Network and dependent on many contextual factors. The "Ecological Creditor Initiative" has presented one of Global Footprint Network's recent framing activities, associated risks and opportunities and its new role as a convening power. The experience with the Andean Community highlights the need to apply different communications and framing strategies with different addresses and in different situations. This makes a global norm diffusion process an encompassing task and challenge.

Although Jacques Chirac is not a prominent representative for the idea of sustainable development, his quote at the beginning of my paper conveys the immense commitment of truly advancing the norm of sustainability, which can only be triggered by norm entrepreneurs but involves everyone in the global community; it is a revolution of the current system and requires an economic, societal and environmental transformation. Ideas lie at the heart of all these changes.

9. Bibliography

Adler, Emanuel and Peter M. Haas 1992: Conclusion: Epistemic Communities, World Order, and the Creation of a Reflective Research Program, in: International Organization, 46:1, p. 367-390.

Adler, Emanuel 2002: Constructivism and International Relations, in: Walter Carlsnaes (ed.): Handbook of International Relations, London: SAGE, p. 101-110.

Breitmeier, Helmut 2008: The Legitimacy of International Regimes, Surrey: Ashgate Publishing Limited.

Chong, Dennis and James N. Druckman 2007: Framing Public Opinion in Competitive Democracies, in: American Political Science Review, 101:4, p. 637-656.

Christoff, Peter 2006: Post-Kyoto? Post-Bush? Towards an effective climate coalition of the willing, in: International Affairs, 82:5, p. 831-860.

Costanza, Robert 2009: Toward a new sustainable economy, in: Real-world economics review, 49, 12 March 2009, p. 20-21,

http://www.paecon.net/PAEReview/issue49/Costanza49.pdf. Accessed 01/05/2009.

Deitelhoff, Nicole and Harald Müller 2005: Theoretical Paradise – empirically lost? Arguing with Habermas, in: Review of International Studies, 31, p. 167-179.

Deitelhoff, Nicole 2006: Überzeugung in der Politik – Grundzüge einer Diskurstheorie internationalen Regierens, Frankfurt: Suhrkamp.

Deitelhoff, Nicole 2007: Was vom Tage übrig blieb: Inseln der Überzeugung im vermachteten Alltagsgeschäft internationalen Regierens, in: Niesen, Peter and Benjamin Herborth (eds.): Anarchie der kommunikativen Freiheit. Jürgen Habermas und die Theorie der Internationalen Politik, Frankfurt: Suhrkamp, p. 26-56.

Egner, Heike 2007: Surprising Coincidence or Successful Scientific Communication? How did Climate Change Enter into the Current Public Debate? in: GAIA, 16:4, p. 250-254.

Ewing B., S. Goldfinger, M. Wackernagel, M. Stechbart, S. M. Rizk, A. Reed and J. Kitzes 2008: The Ecological Footprint Atlas 2008, Oakland: Global Footprint Network. Available at:

http://www.footprintnetwork.org/en/index.php/GFN/page/reading_and_references/.

Fergus, A. H. T. and J. I. A. Rowney 2005: Sustainable Development: Lost Meaning and Opportunity?, in: Journal of Business Ethics, 60:1, p. 17-27. Accessed 03/04/2009.

Fiala, Nathan 2008: Measuring sustainability: Why the ecological footprint is bad economics and bad environmental science, in: Ecological Economics, doi:10.1016/j.ecolecon.2008.07.023. Accessed 01/05/2009.

Finnemore, Martha 1993: International Organizations as Teachers of Norms, in: International Organization, 47:4, p. 565-597.

Finnemore, Martha 1996: Norms, Culture, and World Politics: Insights From Sociology's Institutionalism, in: International Organization, 50:2, p. 325-347.

Finnemore, Martha and Kathryn Sikkink 1998: International Norm Dynamics and Political Change, in: International Organization, 52:4, p. 887-917.

Finnemore, Martha and Kathryn Sikkink 2001: Taking Stock: The Constructivist Research Program in International Relations and Comparative Politics, in: American Review of Political Science, 2001:4, p. 391-416.

Fischer-Lescano, *Andreas and Philip Liste* 2005: Völkerrechspolitik - Zu Trennung und Verknüpfung von Politik und Recht der Weltgesellschaft, in: Zeitschrift für Internationale Beziehungen, 12:2, p. 209-249.

Forschungsgruppe Menschenrechte 1998: Internationale Menschenrechtsnormen, transnationale Netzwerke und politischer Wandel in den Ländern des Südens, in: Zeitschrift für Internationale Beziehungen, 5:1, p. 5-42.

Goldstein, Judith and Robert O. Keohane 1993: Ideas and Foreign Policy: An Analytical Framework, in: Goldstein, Judith and Robert O Keohane (eds.): Ideas & Foreing Policy - Beliefs, Institutions and Political Change, Ithaca and London: Cornell University Press, p. 1-30.

Gough, Claire and Simon Shackley 2001: The respectable politics of climate change: the epistemic communities and NGOs, in: International Affairs, 77:2, p. 329-345.

Haas, Peter M. 1992: Introduction: Epistemic Communities and International Policy-Coordination, in: International Organization, 46:1, p. 1-35.

Hall, Charles A.S. and John W. Day 2009: Revisiting the Limits to Growth After Peak Oil, in: American Scientist, 97, May-June 2009, p. 230-237.

Hanrieder, Tine 2008: Moralische Argumente in den Internationalen Beziehungen – Grenzen einer verständigungsorientierten "Erklärung" moralischer Debatten, in: Zeitschrift für Internationale Beziehungen, 15:2, p. 161-186.

Harnisch, Sebastian 2003: Theorieorientierte Außenpolitikforschung in einer Ära des Wandels, in: Hellmann, Gunther, Wolf, Klaus Dieter and Michael Zürn (eds.): Die neuen Internationalen Beziehungen. Forschungsstand und Perspektiven der Internationalen Beziehungen in Deutschland, Baden-Baden: Nomos Verlag, p. 313-360.

Harnisch, Sebastian 2008: Ansätze des Konstruktivismus, in: Wilhelm, Andreas and Carlo Masala (eds.): Handbuch der Internationalen Politik, Wiesbaden: Verlag für Sozialwissenschaften.

Hawkins, Darren 1999: Transnational Activists as Motors for Change, in: International Studies Review, 1:1, p. 119-122.

Hübscher, Mark and Martin Müller 2001: Wo bleibt das Individuum in der Nachhaltigkeitsdebatte? Eine Integrative Ethik für eine Nachhaltige Entwicklung, in: zfwu, 2:3, p. 365-384.

Hurrell, Andrew 2002: Norms and Ethics in International Relations, in: Walter Carlsnaes (ed.): Handbook of International Relations, London: SAGE, p. 137-154.

Ingebritsen, Christine 2002: Norm entrepreneurs: Scandinavia's Role in World Politics, in: Cooperation and Conflict, 37:1, p. 11-23.

Keck, Margaret and Kathryn Sikkink 1998: Activists beyond Borders, Ithaca, New York: Cornell University Press.

Khagram, Sanjeev, Riker, James V. and Kathryn Sikkink 2002: From Santiago to Seattle: Transnational Advocacy Groups Restructuring World Politics, in: Khagram, Sanjeev, Riker, James V. and Kathryn Sikkink (eds.): Restructuring World Politics: Transnational Social Movements, Networks and Norms, Minneapolis and London: University of Minnesota Press, p. 3-23.

Kitzes, Justin, M. Wackernagel, J. Loh, A. Peller, S. Goldfinger, D. Cheng, and K. Tea 2008: Shrink and Share: Humanity's Present and Future Ecological Footprint, in: Philosophical Transactions of the Royal Society, 363:1491, February 12, p. 467-475.

Kitzes, Justin et al. 2008: A research agenda for improving national Ecological Footprint accounts, in: Ecological Economics, doi:10.1016/j.ecolecon.2008.06.022. Accessed 01/05/2009.

Kitzes, Justin and Mathis Wackernagel 2009: Answers to common questions in Ecological Footprint Accounting, in: Ecological Indicators, 9, p. 812-817, doi:10.1016/j.ecolind.2008.09.014. Accessed 01/05/2009.

Kitzes, Justin, et al. 2009: Interpretation and Application of the Ecological Footprint: A Reply to Fiala, in: Ecological Economics, 68, p. 929-930.

Kübler, Dorothea 2000: On the Regulation of Social Norms, p. 27.

Landolt, Laura K. 2004: (Mis)Constructing the Third World? Construtivist Analysis of Norm Diffusion, in: Third World Quarterly, 25:3, p. 579-591.

Lane, Jan-Erik and Reinert Maeland 2008: The Ecological Deficit of the Asia-Pacific Region: A Research Note, in: The Asia Pacific Journal of Public Administration, 30:2, p. 217-226.

Lindenberg, Siegwart 2008: Social norms: What happens when they become more abstract? in: Dieckmann, Andreas, K. Eichner, P. Schmidt and Thomas Voss (eds.):

Rational Choice: Theoretische Analysen und empirische Resultate, Festschrift für Karl-Dieter Opp zum 70. Geburtstag, Wiesbaden: VS Verlag für Sozialwissenschaften, p. 63-82.

Müller, Harald 2002: Security Cooperation, in: Walter Carlsnaes (ed.): Handbook of International Relations, London: SAGE, p. 369-408.

Özler, S. Ilgü and Brian K. Obach 2009: Capitalism, State Economic Policy and Ecological Footprint: An International Comparative Analysis, in: Global Environmental Politics, 9:1, Massachusetts Institute of Technology, p. 79-108.

Payne, Rodger A. 2001: Persuasion, Frames and Norm Construction, in: European Journal of International Relations, 7:37, p. 37-61.

Price, Richard 2003: Transnational Civil Society and Advocacy in World Politics, in: World Politics, 45:4, p. 579-606.

Reich, Simon 2003: Power, Institutions and Moral Entrepreneurs, ZEF – Discussion Papers on Development Policy No. 65, Center for Development Research, Bonn, p. 1-46.

Rice, James 2007: Ecological Unequal Exchange: International Trade and Uneven Utilization of Ecological Space in the World System, in: Social Forces, 8:53, p. 1369-1392.

Risse, Thomas and Kathryn Sikkink 1999: The socialization of international human rights norms into domestic practices: introduction, in: Risse, Thomas, Stephen C. Ropp and Kathryn Sikkink (eds.): The Power of Human Rights: International Norms and Domestic Change, Cambridge: University Press, p. 1-38.

Risse, Thomas and Stephen C. Ropp 1999: International human rights norms and domestic change: conclusions, in: Risse, Thomas, Stephen C. Ropp and Kathryn Sikkink (eds.): The Power of Human Rights: International Norms and Domestic Change, Cambridge: University Press, p. 234-278.

Sikkink, Kathryn 1993: The Power of Principled Ideas: Human Rights Policies in the United States and Europe, in: Goldstein, Judith and Robert O. Keohane (eds.): Ideas & Foreign Policy - Beliefs, Institutions and Political Change, Ithaca and London: Cornell University Press, p. 139-172.

Sikkink, Kathryn 1998a: Transnational Politics, International Relations Theory, and Human Rights, in: Political Science and Politics, 31:3, p. 516-523.

Sikkink, Kathryn 2002: Restructuring World Politics: The Limits and Asymmetries of Soft Power, in: Khagram, Sanjeev, Riker, James V. and Kathryn Sikkink (eds.): Restructuring World Politics: Transnational Social Movements, Networks and Norms, Minneapolis and London: University of Minnesota Press, p. 301-318.

Simmons, Beth A. and Lisa L. Martin 2002: International Organizations and Institutions, in: Walter Carlsnaes (ed.): Handbook of International Relations, London: SAGE, p. 192-211.

Spiro, Peter T. 1998: Nonstate Actors in Global Politics, in: The American Journal of International Law, 92:4, p. 808-811.

Take, *Ingo* 2000: The Better Half of World Society, in: Albert, Mathias, Brock, Lothar and Klaus Dieter Wolf (eds.): Civilizing World Politics – Society and Community beyond the State, p. 199-214.

Wapner, Paul 1995: Politics Beyond the State: Environmental Activism and World Civic Politics, in: World Politics, 47:3, p. 311-340.

Wapner, Paul 2002: The Sovereignty of Nature? Environmental Protection in a Postmodern Age, in: International Studies Quarterly, 46, p. 167-187.

Wendt, Alexander 1993: Identity and Structural Change in International Politics, in: Lapid, Yosef and Friedrich Kratochwil (eds.), London: Lynne Rienner Publishers, p. 47-64.

Wuppertal Institut 2006: Fair Future, München: C.H. Beck.

WWF - World-Wide Fund for Nature International, Global Footprint Network, ZSL -Zoological Society of London 2006: Living Planet Report 2006, Gland: WWF. Available online at: www.panda.org/livingplanet.

Empirical Data - Global Footprint Network

Global Footprint Network 2008: What We Do, Oakland: Global Footprint Network. Available at: http://www.footprintnetwork.org/en/index.php/GFN/page/publications/. Accessed 01/05/2009.

Global Footprint Network 2009: Website in five languages: English, German, French, Spanish and Italian. http://www.footprintnetwork.org/. Accessed 02/09/2009.

Global Footprint Network 2009: Global Footprint Network Overview, Oakland: Global Footprint Network. Available at: http://www.footprintnetwork.org/en/index.php/GFN/page/publications/. Accessed 01/05/2009.

Global Footprint Network 2009: Annual Report 2008, Oakland: Global Footprint Network. Available at: http://www.footprintnetwork.org/en/index.php/GFN/page/publications/. Accessed 01/06/2009.

 ${\it Global\ Footprint\ Network\ 2009: Ecological\ Footprint\ Standards\ 2009-Draft,\ Oakland:\ Global\ Footprint\ Network.\ Available\ at:}$

http://www.footprintnetwork.org/en/index.php/GFN/page/standards_update_2009/. Accessed 15/04/2009.

Global Footprint Network 2009: German and English Wallet Cards 2009 – joint production with GTZ and the Bayarian National Park.

Global Footprint Network 2009: Ecological Creditor Initiative (One-Page Summary), Oakland: Global Footprint Network. Available at:

http://www.footprintnetwork.org/en/index.php/GFN/page/ecological_debtors_and_creditor. Accessed 10/03/2009.

Global Footprint Network 2009: Ecological Creditor Initiative – An Outline (Two-Page Summary), Oakland: Global Footprint Network, Version 17/03/2009.

Global Footprint Network 2009: Ecological Creditor Initiative – Part II – Summit Overview Document, Oakland: Global Footprint Network, Version 22/04/2009.

Global Footprint Network 2009: Personal Footprint Calculator. http://www.footprintnetwork.org/en/index.php/GFN/page/personal_footprint/. Accessed 26/08/2009.

Global Footprint Network and the Community of Andean Nations 2009: Executive Summary: The Ecological Creditor Initiative; First Experts Meeting in Lima, 7th and 8th April 2009.

Global Footprint Network and the Community of Andean Nations 2009: Ecological Footprint and Biocapacity in the Andean Community.

Global Footprint Network y la Comunidad Andina 2009: Resumen Ejecutivo: La Iniciativa sobre Biocapacidad; Primera Reunión de Expertos en Lima, 7 y 8 de Abril del 2009.

Interview with Jennifer Mitchell, Director of Strategic Initiatives, 7th May 2009, Oakland.

Interview with Mathis Wackernagel, co-inventor of the Ecological Footprint and co-founder and President of Global Footprint Network, 6th May 2009, Oakland.

Interview with Pati Poblete, Communications Director, 6th May 2009, Oakland.

Kitzes et al. 2007: A Research Agenda for Improving National Ecological Footprint Accounts, Oakland: Global Footprint Network. Available at: http://www.footprintnetwork.org/en/index.php/GFN/page/reading_and_references/. Accessed on 10/06/2009.

Wackernagel, Mathis 2008: Our Planet: Banking on Tomorrow means Budgeting Today, Adbusters Article.

Wackernagel, Mathis 2009: Methodological advancements in Footprint analysis, in: Ecological Economics, 68, p. 1925-1927.

Wackernagel, Mathis and Martin Kärcher 2009: Measuring Sustainable Investment Options in Development Cooperation - Ecological Capital and Human Well-Being,

Concept Paper, Version May 2008.

Wackernagel, Mathis 2009: What does the Footprint add to Carbon Accounting, Concept Paper, Version 05/04/2009.

Wackernagel, Mathis, Kärcher, Martin and Tatjana Puschkarsky 2009: Der "Ökologische Fußabdruck": globale Biokapazität und das Beispiel Schweiz, in: Jahrbuch Ökologie 2010, Günter Altner, Heike Leitschuh, Gerd Michelsen, Udo E. Simonis and Ernst U. von Weizsäcker (eds.), http://www.jahrbuch-oekologie.de/aktuelles.htm.

Wackernagel, Mathis und Bert Beyers forthcoming 2009: Der Ecological Footprint. Editionsfassung.

Media Articles and Electronic Sources

CNN 2009: Profile of the Ecological Footprint Calculator on Earth Day 25th April 2009: "Pick hairstyle, save the world",

http://edition.cnn.com/video/#/video/tech/2009/04/25/levs.ecological.footprint.cnn. Accessed 26/04/09.

Lexikon der Nachhaltigkeit 2009:

http://www.nachhaltigkeit.info/artikel/brundtland_report_1987_728.htm. Accessed 10/06/2009.

New Economics Foundation 2009: Happy Planet Index, http://www.happyplanetindex.org/. Accessed 22/08/2009.

New York Times 2009: "G.D.P. R.I.P." by Eric Zencey, 9th August 2009, http://www.nytimes.com/2009/08/10/opinion/10zencey.html?scp=5&sq=GDP&st=cse. Accessed 22/08/2009.

New York Times 2009: "The inflection is near" by Thomas L. Friedman, 7th March 2009, http://www.nytimes.com/2009/03/08/opinion/08friedman.html?_r=1&emc=eta1. Accessed 02/09/2009.

White House Documents and Publications 2009: Speech by President Obama at Strasbourg Town Hall, 4th April 2009.

10. Appendix

"Ich erkläre, dass ich die Arbeit selbständig angefertigt und nur die

angegebenen Hilfsmittel benutzt habe. Alle Stellen, die dem

Wortlaut oder dem Sinn nach anderen Werken, gegebenenfalls auch

elektronischen Medien, entnommen sind, sind von mir durch

Angabe der Quelle als Entlehnung kenntlich gemacht.

Entlehnungen aus dem Internet sind durch Ausdruck belegt."

Tatjana Puschkarsky

Heidelberg, den 22. September 2009

73