

The Environmental Leader - Entangled in Institutional Chains?

An analysis of the European Union's role in international forest biodiversity policy; the case of genetically modified trees

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"We look for leadership from the European Union. The decisions currently being made by European leaders in Brussels are (of) great consequences for the whole world."¹

1. Introduction

Environmental regulations of the European Union (EU) are frequently described as being the most progressive and proactive in terms of the application, endorsement and promotion of the sustainability, precautionary and other ecological principles (e.g., JORDAN, BROUWER & NOBLE 1999). As LENSCHOW (2002) notes, the EU has proven to be a 'front-runner' in response to the challenges arising from the shared nature of natural resources as well as regarding the transboundary character of environmental externalities. Since the second half of the 1990s, the EU has been characterized as an increasingly powerful "leading player in global environmental politics" (VOGLER 2005: 836) because it has markedly promoted the integration of environmental policies and policy domains across and beyond nation states. In this respect, its unique governance structures beyond the national level have been identified as supportive; an emergence of equivalent governance settings elsewhere is currently considered unlikely (ROSENDAHL 2005).

There is a plethora of examples of the EU acting as a leading player in environmental policies, mostly targeting domestic concerns. Two of the many cases specifically underlining EU efforts to effectively conserve biodiversity are Directive 79/409/EEC on the conservation of wild birds and Directive 92/43/EEC on the conservation of natural habitats and wild fauna/flora. Another example is the modernization of the European chemicals legislation, namely the establishment of a regulatory framework for the management of chemicals (REACH); considered to be a unique single integrated system for the registration, evaluation and authorization of chemicals. Its proclaimed objective is to improve the protection of human health and the environment whilst maintaining competitiveness and strengthening Europe's chemicals industry. Moreover, the EU established a comprehensive eco-labeling scheme for environmentally produced goods and services, thereby strengthening the influence of consumers. A well cited example illustrating the leadership role of the EU is its strict regulation of genetically modified organisms (GMOs) (e.g. ROSENDAHL 2005), which will be discussed later in more detail.

Internal environmental regulations and corresponding efforts in external relations have earned the EU its nomination as a global regulatory leader, displacing and outpacing the United

¹ UN Secretary General Ban Ki-moon at COP 14 to the UNFCCC in Poznan, Poland, December 12, 2008.

States (U.S.) as the frontrunner in environmental regulations in the 1970s and 1980s. In this context, the EU can be described as promoting and strengthening progressive environmental regulatory policies elsewhere, particularly on climate and forest issues (e.g., MICHAELOWA et al. 2002, OTT 2002).

Regarding biodiversity policies, the EU is perceived the major driving force pushing for the international legal adoption of a relatively strict international regime on genetic modification technologies, namely the Cartagena Protocol on Biosafety (adopted in 2001). Its evolution is related to the successful diplomatic efforts of the EU during the negotiations in Montreal in 2000 (VOGLER 2005). However, this supposedly bright picture is blurred in other biodiversity policy fields, e.g., sustainable agriculture. Hence, FALKNER (2007: 510) notes the “persisting inconsistencies” of EU foreign environmental policy. Our own observations of the EU position during the negotiations on forests and protected areas under the Convention on Biological Diversity (CBD) support the need for a differentiated picture. On one hand, the EU is seen as a leader concerning negotiations on such topics as the development of networks of protected areas or standards for the sustainable use of biomass production. On the other hand, it acts considerably more as a ‘laggard’ with respect to other topics, e.g., the financing of biodiversity conservation and the restriction of a proliferation and use of genetically modified trees.

This contradictory picture motivated us to take a closer look at the EU position on biodiversity policies, specifically that regarding forests. Due to its illustrative character concerning the stated ambivalence of EU policies, we utilize the case of genetically modified trees (GM trees) to answer the following questions:

- To what degree can the EU be considered a ‘true leader’ regarding the conservation of forest biodiversity?
- Which factors impede or promote a strong EU leadership role regarding forest biodiversity policies?
- How can the EU be strengthened as a leader in the field of forest biodiversity policy?

To answer these questions, we will proceed as follows. First, we introduce two perspectives within the theoretical debate concerning the question of whether or in which manner the EU could be characterized as a leader in international environmental policy. Second, using the case of GM trees, we reflect on the empirical observations that we made during the 13th meeting of the Subsidiary Body on Technical and Technological Advice (SBSTTA 13) and the ninth Conference of the Parties (COP9) of the CBD as compared to the introduced

theoretical background. In order to better illustrate the contradictions uniquely inherent in the issue of GM trees, this section is preceded by a brief excursus about the debate on accompanied risks and chances, as well as on current EU policies in this area. The paper concludes with general recommendations for policy makers concerning potentially strengthening the EU's role in biodiversity governance. Finally, we also attempt to draw on implications for issue-specific transatlantic relations by reflecting on possibilities for transboundary learning and coordination at different governance levels.

2. Theoretical perspectives on leadership

Leadership can be defined as “an asymmetrical relationship of influence, where one actor guides or directs the behavior of others towards a certain goal over a certain period of time” (UNDERDAL 1994: 181). The concept of leadership is related to the ideas of ‘pioneering’ or ‘first mover’ which are used by other authors to characterize the Union's role in international environmental policies. While pioneering is generally more focused on policy diffusion of innovations (JÄNICKE 2005), leadership is more specifically concerned with the question of how and why a political entity can shape the collective behavioral patterns of other entities towards specified (normative) goals, e.g., environmental protection.

There are several theoretical perspectives which may be applied in analyzing leadership in terms of underlying motivations and respective behaviors. In the following, we highlight two distinct perspectives on the role of the EU as a leader in international biodiversity policy. These perspectives explore the image of the EU as a “power of ideas and norms” (MANNERS 2002: 238) against a New Political Economy approach, arguing in favor of the EU as a strategic actor (e.g., FALKNER 2007). Since this paper addresses both, scientists and policy makers, our argumentation is built about a fundamental basis

2.1 The EU - a normative leader?

Viewing the EU as a “normative power” (MANNERS 2002) is a prevalent perspective which is often used to explain its position as a leader in global environmental policies, embracing constructivist and discursive arguments alike. It emerged in the context of the civilizing power of the EU towards its member states and, correspondingly, externally with respect to potential members in the course of the enlargement processes (see BJÖRKDAHL 2005). Theorists working with the approach claim that in a seemingly unprecedented manner, a different and ‘novel’ mode of ‘normative’ power can be observed and attributed to EU foreign (environmental) affairs (e.g., DIEZ 2005).

Following such a notion and taking into account the argumentation of MANNERS who describes normative power as a “power of ideas and norms rather than power of empirical force” (2002: 238), the EU ‘acts’ as a softly persuasive global law making body which promotes the argumentative diffusion of norms rather than relying on military strength or the economic ‘whip’. An inherent democratic, transnational normativity (cf. THERBORN 2002) stresses the common rather than the individual will or need, thus generating a particular socio-economic combination which uniquely predisposes Europe to being a promoter of global entanglement. “The mutated European traditions of socially embedded trade and democratic transnational normativity still do respond (...) to the widespread needs and demands of the current world. Openness to technological innovations and productivity challenges, while guarding unique socio-cultural and environmental milieux, and, further, worldwide norms of human rights, respecting different popular manifestations, all would constitute major contributions to a decent global society” (THERBORN 2002: 414).

High European social and environmental standards experience an increasing global diffusion through international treaties and third states adopting the former.² Such development stands in contrast to the assumption of a ‘race to the bottom’ under conditions of enhanced economic and political globalization. Moreover, as a normative leader, the EU displays military or economic power to a lesser extent than the U.S., which has repeatedly been conceptualized as the most important counterpart to the EU in the advancement of global regulation (e.g. THERBORN 2002: esp. 408). This picture of a successful counter action to conservative domestic and foreign policy making modes furthered and underpinned a conceptualization of normativity as an important driving force in international EU relations.

² For a comprehensive introduction cf. VOGLER 2005.

MANNERS is broadly perceived as having introduced this concept of the EU as a normative power in international relations (DIEZ 2005, BJÖRKDAHL 2005). This approach is remarkably novel in contrast to contributions from predecessors (such as MAULL, cf. DIEZ 2005) that discuss the ‘normative’ power of the EU as being equivalent to ‘civilian’ power. MANNERS draws a conceptual line between the latter concepts and, instead, distinguishes between ‘normative’, ‘civilian’ and ‘military’ power. While military power is based on ‘empirical’ arguments of arms, and civilian power on economic and/or diplomatic/legal arguments, normative power is non-physical and solely refers to ideas or opinions (MANNERS 2002). Such an understanding not only introduces a third category to a formerly clear dichotomy, but also fundamentally scrutinizes and somewhat undermines the duality of civilian and military power, which supposedly underpin classic EU foreign relations (DIEZ 2005).³

While MANNERS assumes that these three types of power exist alongside each other instead of being exclusionary, he considers normative power to be the most powerful as it encompasses “the ability to define what passes for ‘normal’ in world politics” (2002: 235). Normative power works in such a way that the will of the ‘power’ receiving entity is penetrated and shaped by the norm sending power (MANNERS 2002, quoting GALTUNG 1973). As his case of the international and normative ‘fight’ by the EU for abolishing the death penalty demonstrated, the EU is mainly committed to this normative power in its foreign policies rather than to the two aforementioned types.⁴

Such a ‘friendly’ understanding of power results in a rather voluntary diffusion of ideas of ‘normality’ and allows the EU to exert a sheer “magnetic influence [...] over its neighbours” (VOGEL 2005: 841). Hence, the concept does not seem to fit with the classical coercive Weberian concept of power (DIEZ 2005) and also differs notably from the more oppressive understanding of constructivist theories, e.g., the Foucauldian powerful and coercive discourse.

It may be surprising that the EU successfully draws on a concept of normative power, as MANNERS (2002: 238) himself states: “It is perhaps a paradox to note that the continent which once ruled the world through the physical impositions of imperialism is now coming to set world standards in normative terms”.

³ For a detailed contemporary discussion of this turn in Manners’ conceptualization of power cf. DIEZ (2005). Similarly to be found in THERBORN (2002) where the normative direction of the EU is understood in continuation of a long ‘European’ history as traders and lawyers.

⁴ Which is in line with the argumentation of other authors, e.g. THERBORN 2002, highlighting examples such as the UN Human Rights Conventions, the Kyoto Protocol or the International Crimes Tribunal (ibid. 408).

Its supranational character makes it “distinguishable from its constituent [27] member states [...] capable of taking action at the international level” which justifies the acknowledgement of the EU as an “actor in its own right” (VOGLER 2005: 837), or an actor *sui generis*. In addition, its specific consensual evolution and the respective internal normative foundation allow for a pivotal and unique *normative* role in global (environmental) policy making (MANNERS 2002: 242).

In this context, the discourse arguing for a normative approach sets up a positive image of the EU role in world politics while it turns third parties into ‘others’, serving as a ‘projection screen’ for its own image or identity (DIEZ 2005). The respective normative standards are set and promoted by the EU towards and beyond its member states in order to maintain this image. Such standards are closely linked to *universal* core norms embracing peace and liberty, democracy, human rights, and the rule of law – values which built the normative, identity creating basis of the EU (MANNERS 2002: 242, BJÖRKDAHL 2005). The leadership role of the EU in *environmental* issues relates to what MANNERS defines as the ‘minor norms’, such as social solidarity, anti-discrimination, sustainable development and good governance, which are derived from the former. Hence, in this respect, a leadership role is affirmed by the diffusion of the universally desirable norms that constitute an integral part of the constructed ‘self’. What marks the EU’s international role in the area of environmental legislation under the CBD “is not what it does or what it says, but what it is” (MANNERS 2002: 252).

In summary, such an outward representation of the EU’s identity as a global environmental leader which is based on universal values and principles like peace and freedom inevitably leads to their global diffusion and thereby affirms the leadership role. Environmental norm diffusion is a subsequent consequence of normative leadership and is not dictated by any coercive rationale. In this understanding, environmental normative leadership and the attached diffusion of the respective ‘progressive’ environmental regulations are nothing but an assertion of universally valid ‘minor norms’, embodied in certain environmental policies. Accordingly, ‘true’ leadership merely takes subtle forms of coercion, where followers simply copy favorable institutional conditions in order to obtain a comparative advantage in the global games of markets and diplomacy. Instead, norm diffusion appears to be the only ‘possible’ and inescapable answer to the softly persuading universal model, as embodied in the EU. Adopting the norms of the leader is evidently just in the legitimate interest of a wider group, namely its followers (see MALNES 1995); this adoption further fuels the motivation of the EU for making regulatory progress and carrying out diffusion.

2.2 Leadership as a strategic behavior

The concept of the EU as a one-of-a-kind normative leader is not without criticism, particularly from those adhering to the New Political Economy approaches (e.g. FALKNER 2007). These critics primarily object to the normative power approach as a non-historical perspective which disregards domestic interests that determine the EU's position on different policy issues. The normative power approach "mistakes the export of domestic norms with the pursuit of global interests and global values, it fails to take into account the domestic interest structure that underpins regulatory internationalization, and it understates the potential dissonance between different values and norms at the heart of Europe's identity" (ibid.: 511). In this perspective, the normative leadership of the EU is understood as an internationalization of domestic regulations following a strategic interest in global competitiveness, as compared to an understanding of a 'selfless' promotion of universal values.

The New Political Economy offers another perspective based on actor-centered Rational Choice Theory for the analysis of the EU's behavior in international environmental policies. Rational Choice tries to explain social phenomena by analyzing the behavior of individuals who act in a rational, self-centered way when making decisions about alternative courses of action (*Figure 1*). The assumption is that actors are aware of their preferences and that these preferences have an inherent, clear ranking order. Following this logic, actors are capable of choosing the alternatives that best meet their preferences in order to optimize their utility; this assumption presumes that the actors have the capacity to rationally decide how they can best achieve their individual goals through a process of weighing the costs and benefits of all of the alternative courses of action.

It is also considered rational behavior not to gather additional information if the transaction costs of this acquisition would exceed the benefits expected from finding an even better alternative. The resulting choice is not fully informed, but intentionally rational (TROJA 1998: 18). Therefore, optimizing actors do not waste time and resources on what they consider a low-cost decision, i.e., where no fundamental interests are at stake. However, in an international policy regime like the CBD with its many different issues subject to negotiation, low-cost decisions from the view of the individual actor may also be used strategically as 'negotiation mass' for other 'more important' issues at stake (PUTNAM 1988).

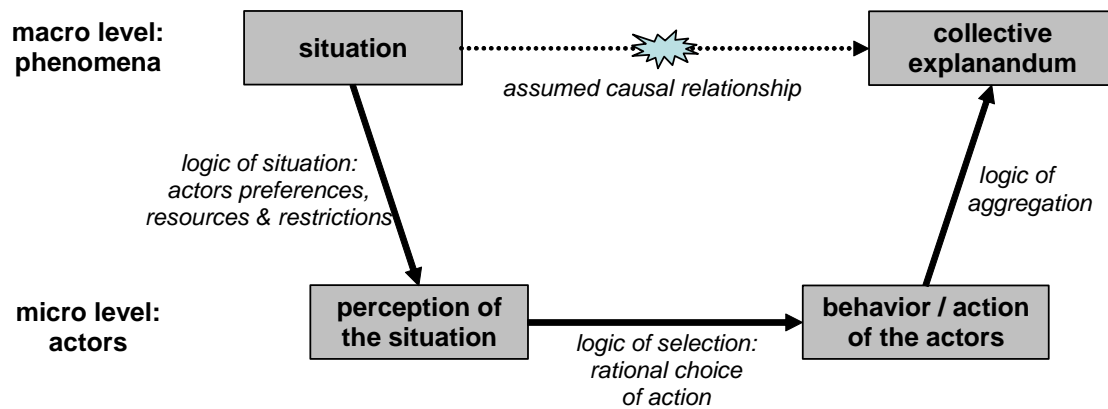


Figure 1: Actor-based Rational Choice model for the explanation of social phenomena in perceived high-cost decisions (adapted from to ESSER 1993)

Public Choice Theory is an extension of the fundamental theoretic approach of Rational Choice. Its objective is to explain the formation and formulation of policies via the interaction of different actor interests which are the main factor in every democratic decision-making process (VON ALEMANN 1989: 271). The Public Choice perspective considers politics as a market place for ‘political goods’ with politicians as the major suppliers of the goods demanded by their voters. Accordingly, politicians and broader, national governments are seen as rational profit-maximizing ‘actors’ striving for power and prestige. As a result, policies are carefully designed to maximize public support or, as DOWNS (1968: 26) states with respect to political parties, “parties formulate policies in order to win elections, rather than win elections in order to formulate policies (BARKDULL & HARRIS 2002).”

Of course, decision makers also pursue goals other than merely satisfying the interests of their voters. The interests of powerful groups or individuals may also be incorporated into the design of a policy. GMO policies, for instance, are a prominent example supporting these theoretic assumptions: Political actors opposing GMO and using the risk perception of voters to win elections will lose their credibility, campaign contributions and voters in the next election if they do not visibly work towards preventing GMO proliferation.

Lobbyists and interest groups put tremendous efforts into influencing and persuading decision makers. Eventually, both, public opinion and organized interest groups notably influence the policies of a party or a government. In this sense, involved actors and their respective power relations emerge at the front of discussions. The Public Choice perspective also provides insights in situations where powerful interests and public opinions on environmental policies contradict rather than harmonize: While voters may be interested in ‘strong’ governmental environmental policies with the goal of a ‘healthy’ environment, business or industrial lobbies

might not be interested in such a policy at all. Moreover, even voters with an interest in environmental issues might object to strict environmental standards if their habits and economic prosperity were to be notably affected, e.g., by a general speed limit on highways. In such cases, governments are often inclined to promote symbolic policies. Symbolic policy can be defined by its low or absent steering effects compared to the original intention and policy objectives (LÜBBE in DICKE 2001: 11). Although nicely written, it is de facto ineffective and fruitless, in other words ‘symbolic’ environmental legislation.

Research on so called ‘gridlock’ situations (e.g., OSBORNE 1998) supports the picture of actors who consciously promote inaction or symbolic policies. A high degree of complexity in both the issue itself and the process in which the issue is negotiated increases the probability of such policies (VON PRITTWITZ 1990: 67). Global environmental problems, such as climate change or loss of biodiversity, are particularly challenging since they may require, e.g., sensible cuts in voters’ consumption or a costly change of production patterns on a global scale. In such cases, symbolic policies may act as a temporary solution for decision makers postponing necessary but unpopular actions at the expense of future generations.

The New Political Economy regards political processes as analogous to markets in which political actors are viewed as being rational, utility-maximizing individuals who aggregate in interest groups with shared beliefs and corresponding common preferences. In this sense, the policies and actions of individual nation states are notably shaped by the sum of interests brought forward by different domestic interest groups to their respective governments. The same holds true for the EU as a supranational organization considering that EU policy, according to this perspective, is determined by the sum of interests of the member states and European lobby groups. Thus, EU standards and the EU position in international negotiations oriented towards these standards can be understood as a negotiated compromise of domestic interests.

Accordingly, the preference of an individual state to pursue and support strong environmental legislation depends on the specific issue. SPRINZ & VAAHTORANTA (1994) created a matrix that classifies the general behavior of actors according to their individual ecological vulnerability and abatement costs (Figure 2). However, additional factors like changes in value preferences, domestic interest representation of voters’ political attitudes and lobbying also play an important role.

		degree of direct affection	
		low	high
abatement costs	low	<i>bystander</i>	<i>pusher</i>
	high	<i>dragger</i>	<i>intermediate</i>

Figure 2: Classification of countries' roles in environmental regulation (adapted from SPRINZ & VAAHTORANTA 1994: 81)

Evidently, such an approach is skeptical about the idea of a commonly shared set of universal norms as the driving force behind the ecologically oriented EU policies. It stresses the importance of particular interests of certain (groups of) actors that instead aim to push through their respective policies.

In the case of the EU policy on agricultural biotechnology, for example, FALKNER (2007) identified domestic interests as being key factors behind the EU's support of a precautionary international regime on trade in genetically modified organisms as opposed to other normative ecologic concerns. In that particular example of strict EU standards on GMO food, well-organized and influential environmental groups have been stressed as the driving forces behind Europe's strive for a stringent global regulatory framework, such as the Cartagena Protocol. Similarly crucial in this context was the perceived non-competitiveness of the politically less organized domestic agrarian GMO industry. In addition, political economic assumptions provide an explanation of why stricter global standards on GMO medicals were not included in the Cartagena Protocol: Firstly, the European pharmaceutical lobby is relatively powerful and secondly, modified medicine does not concern European citizens to the same extent that food consumption does (FALKNER 2007).

Regarding GMO in agriculture, environmental groups represent the interests of a large share of European voters who have reservations about GMO products. MOON & BALASUBRAMANIAN showed the significantly higher risk perception of European consumers who have, in comparison with US citizens, "voiced intense health and environmental concerns about foods containing genetically modified organisms (2001: 222)." Of course, the issue of alimentation affects people directly, but the example shows a picture of sentiment that is likely to be drawn for the entire issue of GMO in the EU. MOON & BALASUBRAMANIAN also showed with their survey that risk perception in the EU "exerts a greater impact on willingness-to-pay than benefit perception (2001: 227)". Obviously, this background is also notably shaping the policies of EU politicians.

Following a strategic rationale, an internationalization or export of strict domestic policies or standards is very much in the interest of European agrarian business or industry as it allows them to squeeze competitors (namely the USA or Japan) out of the European food and biotechnology markets. Further, the precautionary principle holds a striking argument to even withstand a WTO legal challenge – whenever deemed necessary to defend own policies. In this understanding and respect, African, Asian or Latin American state policies addressing a renunciation from GMO seeds would also equate to an attempt to sustain the access of their products to European markets. Normative motives would be a clear asset here, broadening the group of supporters of such policies; the ultimate mechanism, however, would remain strategic, i.e., following a political-economic rationale of selected interest groups.

In summary, the New Political Economy offers an alternative view on the leadership position of the EU in international environmental policy as compared to the ‘normative power’ perspective. In this perspective a ‘strong’ environmental policy or even the role of a leader can be explained by the structure of interest groups and the interests of a large share of voters within the EU. “Adopting a political economy perspective thus provides a critical corrective to the increasingly fashionable view that European environmental leadership reflects a qualitatively distinct, normatively based, model of foreign policy” (FALKNER 2007: 512). In this manner, leadership barely features ‘true leadership’, understood by UNDERDAL as being “associated with the collective pursuit of some common good” (1994: 178). If the EU does not look beyond its own interests, as SKODVIN & ANDRESEN (2006) state, its motivation for leadership can only be of an instrumental or strategic kind in order to achieve certain superior goals in the self-interest of the leader. Strictly speaking, leadership would then commensurate sheer means and any regulative diffusion would, in fact, just serve the norm sender. Hence, universally and globally disseminated environmental norms would be no end in themselves, but would merely be a means for those ends favored and valued by the leader.

3 The case: Negotiations on genetically modified trees under the CBD

3.1 Setting the stage: Risks and benefits of GM trees

As genetically modified organism (GMO), genetically modified (GM) trees have been transformed by the insertion of one or more genes (called transgenes), usually from a different species. Research on the use of genetically modified trees is, as compared to GMO crops in agriculture, not yet widespread in forest science and forestry. However, since the first reported field trials were established in Belgium in 1988, there have been more than 200 notified trials with over 15 tree species. While approximately two thirds of all field trials worldwide have been carried out in the USA, most European trials took place in France and Finland. The only commercial-scale GM tree plantation was established in China in 2003. (cf. EL-LAKANY 2004, VALENZUELA ET AL. 2006)

There is an intense and controversial expert debate on whether the benefits of GM trees outweigh the risks associated with their release. On one hand, various benefits are attributed to the use of such trees. The development and commercial use of GM trees are considered as a potential solution for satisfying the growing demand for wood, pulp and paper worldwide, e.g., by genetically enhancing growth rates and wood quality or density. In addition, the improvement of traits such as pest resistance, herbicide tolerance or changes in the composition and amount of lignin may significantly reduce the amount of environmental pollution associated with plantations and paper production (EL-LAKANY 2004, VALENZUELA ET AL. 2006). Further potential advantages address (soil) restoration, carbon sequestration and urban and amenity forestry (VALENZUELA ET AL. 2006, MATHEWS & CAMPBELL 2000, EL-LAKANY 2004). Next to the ecological benefits, there would also be considerable economic benefits (SEDJO 2004). On the other hand, there are considerable risks associated with the use of GM trees. While in contrast to GM crops, the direct risks for human health and food safety are expected to be low, uncertainties remain concerning the long-term environmental impact of GM trees. In particular, potential risks involve the unintended impact of modified species on forest ecosystems due to trees being the essential constituents of such ecosystems and often having more complex and poorly understood interactions with their environments than their agricultural counterparts (STEINBRECHER & LORCH 2008, EL-LAKANY 2004). Altered competitiveness of such trees, as compares to other trees and non-tree species, changing vitality, resistance to disturbances and resilience and altering habitat structures might hold severe consequences for biodiversity or forest ecosystem integrity and services (WINKEL 2007).

In comparison to GM crops, the potential risks of GM trees are more difficult to assess because the proliferation of the latter is harder to control once introduced into the environment. Here, major concerns refer to the long rotation time, large spatial distribution and the limited knowledge on tree physiology and genetics. Many of the desirable traits in GM trees are related to whole gene complexes, which often govern the ability of trees to react to the biotic or abiotic stresses they are exposed to during their long life span. (EL-LAKANY 2004, VALENZUELA ET AL. 2006, STEINBRECHER & LORCH 2008)

These features bear the risks of invasiveness and outcompeting native species (MATHEWS & CAMPBELL 2000, STEINBRECHER & LORCH 2008) as well as of potential gene flow, i.e., gene transfer to breeding populations or wild relatives (VALENZUELA ET AL. 2006, EL-LAKANY 2004). Since many tree species are able to disperse large quantities of viable pollen over great distances, potential gene flows are difficult to control (KATUL ET AL. 2006, SMOUSE ET AL. 2007). Efforts to minimize the danger of cross-breeding by using sterile trees are hampered by the ability of trees to reproduce vegetatively, e.g., through roots or from broken branches that can be transported by wind, water, animals or humans (FARNUM ET AL. 2007, STEINBRECHER AND & LORCH 2008).

The outlined complexity poses a major challenge to performing reliable and scientifically robust risk assessments of GM trees (FARNUM ET AL. 2007, EL-LAKANY 2004). Risk assessments of GM trees must be multilayered and require the inclusion of a multitude of aspects, including interactions with other organisms and effects on water level and on microclimate. Furthermore, such complexity implies that assessments need to be carried out beyond trait-confined analyses, incorporating different stress scenarios and occurring over long periods of time (STEINBRECHER & LORCH 2008). For instance, it could take at least 20 years to study a few generations of short rotation GM trees. Existing GM tree field trials worldwide have not exceeded six years (VALENZUELA ET AL. 2006). Although differences between GM crops and GM trees are well known, there is currently no country that has established a specific risk assessment procedure for GM trees despite the scientific need for tree-specific risk assessments. In China and Hawaii, where GM poplar and GM papaya were released, risk assessments were carried out in a similar way as those for GM crops (VALENZUELA ET AL. 2006, SEDJO 2004).

These mentioned peculiarities of GM trees as well as the fact that proper scientific risk assessments may never be feasible qualify GM trees as being a case of 'post normal science.' The latter, according to FUNTOWICZ & RAVETZ (1992), accepts the limits of empirical scientific methodology in situations where system uncertainty is high. Since a respective

political decision might hold severe consequences, it cannot solely be based on scientific judgement. Societal values and a related risk evaluation should be taken into account. However, advocates of GM trees often consider best case scenarios, underlining the potential socio-economic and environmental benefits (SEDJO 2003, VALENZULA & STRAUSS 2005). They expect research to overcome the technological limitations and cost constraints still inherent to GM tree technology (VALENZUELA ET AL. 2006). Opponents, on the other hand, desire a more objective and long-term scientific risk assessment to verify potential threats (e.g., FRIENDS OF THE EARTH EUROPE 2004). They often highlight worst case scenarios and potential risks (STEINBRECHER & LORCH 2008, EL-LAKANY 2004). Interestingly, both sides do not seem to question the predominant role of science in risk analysis *per se*.

3.2 Setting the stage II: EU policy and legislation on GMO trees

Based on its competency in environmental affairs⁵, the EU has developed comprehensive regulation for the issue of GMO. Similar to other countries, no specific regulation for GM trees exists in the EU. GM trees are treated under the general European legislation on GMO, which is briefly introduced in the following.

Directive (EEC) No 219/90 aims to protect human health by guaranteeing the containment of GM micro-organisms, thereby preventing them from spreading into the environment. Subsequent amendments to this legislation have, however, established a list of genetically modified micro-organisms that are assumed to pose no relevant risk to human health or to the environment.

Since 1998, the EU Environment Council followed a policy allegorizing a de facto moratorium pending new European legislation on this issue. Eventually, this policy was declared as being non-compliant with international trade agreements in a provisional decision by the WTO in a case that was launched by the US and supported by Canada and Argentina in 2006 (EC 2006, WTO 2006). Before this decision, Directive 2001/18/EC went into force. It allows the deliberate release of GMO into the environment pending scientific risk assessments. Correspondingly, risks of “potential adverse effects on human health and the environment, which may occur directly or indirectly through gene transfer from GMO to other organisms” should be “accurately assessed on a case-by-case basis” (Article 4, § 3). If no relevant risks are found, a deliberate release is principally possible. “Member States may not prohibit, restrict or impede the placing on the market of GMO, as or in products, which

⁵ EC Treaty, Art. 174 and 175.

comply with the requirements of this Directive” (Article 22). Interestingly, Directive 2001/18/EC leaves room for the implementation of a national moratorium by member states. This is an option in case a member state “has detailed grounds for considering that a GMO as or in a product which has been properly notified and has received written consent under this Directive constitutes a risk to human health or the environment [...] as a result of new or additional information made available since the date of the consent and affecting the environmental risk assessment or reassessment of existing information on the basis of new or additional scientific knowledge [...]” (Article 23: Safeguard Clause).

In this context, the roles that different institutions within the EU play is of major interest. If a GMO is to be released, the respective documents, including the scientific studies demonstrating the innocuousness of the GMO, have to be delivered via the national authorities. Following this action, the European Food Safety Authority prepares for a scientific study to evaluate the associated risks and proposes or rejects the release. The decision regarding the release is then made by the Standing Committee on the Food Chain and Animal Health (Scofcah), either accepting or dismissing the proposal of the EFSA via a qualified majority vote of the member states. In the event that no such majority can be achieved, the proposal is presented to the Environmental Council which again decides by qualified majority. In case of dissent, the European Commission (EC) is the last resort to approve or deny the release of the respective GMO (Regulation (EC) No 1829/2003). Until now, the final decision in all known cases had to be drawn by the Commission due to a missing qualified majority in both prior instances (GATT 2008). Although an approval has never been rejected by the Commission, GMO were in fact seldom released since most of the other cases applied to import of GMO (TRANSGEN 2009).

Many member states still seek to block the release of GMO for domestic farming by national moratoria (suspension of release), drawing on Article 23 of Directive 2001/18/EC. Such moratoria were repeatedly criticized by the EFSA as being insufficiently backed by scientific knowledge. Respectively, the EC demanded their abrogation. The Environmental Council, however, confirmed national moratoria more than once, for instance in 2009 when moratoria on the release GM Maize of Monsanto in Austria and Hungary were confirmed despite an opposite proposal of the Commission (GATT 2008, COUNCIL OF THE EUROPEAN UNION 2009).

The EU Parliament seems to be rather skeptical when debating the release of GMO since it condemned, for instance, the first authorization of a GM Maize in the 1990s by the

Commission as an “irresponsible unilateral action” (GATT 2008). Nonetheless, the Parliament has also adopted Directive 2001/18/EC.

In summary, the legal and political situation within the relevant EU institutions and among the member states concerning GMO appears to be dissonant and inconsistent. In terms of legal actions, the EC has supported the release of GMO in cases which were scientifically assessed and approved by the EFSA. The EC has been repeatedly and heavily criticized by many member states for this policy, despite the formal legitimacy. In practice, many member states prevent the release of (EC-approved) GMO for farming on their territory via national moratoria and are often backed in this endeavor by a concerned public.

In the light of this internal background we analyze in the following, how this affects the position of the EU in international negotiations on GM trees under the Convention on Biological Diversity (CBD) and, subsequently, its role as an environmental leader.

3.3 Analysis of the case: The negotiations on genetically modified trees at SBSTTA 13 and COP9 CBD

In 2002, the CBD adopted the expanded program of work (PoW) on forest biological diversity (UNEP/CBD/COP/6/22), representing a comprehensive approach towards the conservation and management of forest biodiversity. The implementation of this ambitious PoW was, regarding the CBD principles of subsidiarity and national sovereignty, explicitly aimed at being the responsibility of the national states. For instance, the “*sovereign rights and responsibilities of countries over their forests and the biodiversity within them*” were underlined in decision VI/22. It was further recognized that Parties should implement the expanded PoW on forest biological diversity “*in the context of their national priorities and needs*” (paragraph 11, decision VI/22).

In 2006, an in-depth review of the PoW on forest biodiversity was conducted. Although the quality and validity of these reports were strongly criticized, especially by non-governmental organizations (NGOs)⁶, the Executive Secretary to the CBD used this review as a basis for preparing recommendations for improved implementation of the PoW in November 2007 (UNEP/CBD/SBSTTA/13/3). Concerning the issue of GM trees, the Parties were invited to “*apply the precautionary approach to the use of genetically modified trees, given the scientific uncertainty regarding their potential socio-economic and cultural impacts*” (§ 2e).

⁶ E.g. GLOBAL FOREST COALITION 2008.

While the topic was not mentioned in the Council Conclusions on Preparation for the COP9 (COUNCIL OF THE EUROPEAN UNION 2007, 2008),⁷ it emerged as a topic at an expert meeting on the isle of Vilm in December 2007. This meeting was an informal scientific workshop attended mainly by European biodiversity experts.⁸ Here, the experts claimed that the wording of the recommendation was not strong enough, considering the potential ecological threats which could result from GM trees. In the end, a more extended text was included in the so-called Vilm recommendations (KORN ET AL. 2007); this text underlined the potential impacts of GM trees on biodiversity, potential socio-economic and cultural aspects of risks and requested that the Secretariat of the Convention develops guidance on this issue.

Prior to COP9, recommendations for improving the implementation of the PoW were also intensively discussed at the 13th meeting of the Subsidiary Body on Technical and Technological Advice (SBSTTA13)⁹ in Rome (February 2008). Five issues turned out to be particularly important: sustainable forest management, climate change and forest biodiversity, illegal logging and related trade, bio-energetic uses of forests and the use of GM trees.

Many EU countries mentioned their general support of the Vilm recommendations in their official statements at the opening session of SBSTTA13, but did not specifically refer to the text on GM trees in particular. In contrast, the European Commission, speaking on behalf of the European Community, stated its general support of the Vilm recommendations, *except* for the text on GM trees that was considered as having been appropriately covered by the Secretariat recommendations.

During the following negotiation process at Rome, the brief text on GM trees that was initially prepared by the Secretariat was extended by several paragraphs. The experts did not reach an agreement on most of this new text which is why it was put into squared brackets, indicating alternative text modules for the upcoming negotiations at COP9. While there was a general agreement on mentioning the precautionary principle as the guiding norm to deal with GM trees, substantial disagreement existed regarding the basis that this principle should be

⁷ “The Council of the European Union ...takes the view that key priorities for forest biodiversity at COP9 should be forest protected areas, forest biodiversity and climate change, impacts of bio-energy production, illegal logging and related trade on forest forest biodiversity, and the role of the CBD vis-à-vis other forest related processes, while conservation and sustainable use of forest-related biodiversity should be a general objective of the CBD work and for COP9.” (COUNCIL OF THE EUROPEAN UNION 2007)

⁸ However, it should be noted that many of these experts later attended the COP9 as official delegates of European member states

⁹ SBSTTA was initially established to provide the COP with timely scientific, technical, and technological advice on the implementation of the Convention. SBSTTA discussions are supposed to be thoroughly scientific and their results are forwarded to COP9 as draft recommendations. During the last decade, however, SBSTTA has developed into a more and more politicized body of the CBD, which has been criticized by different groups, particularly scientists (CRESSEY 2008).

related to. Canada, New Zealand, Australia, Malaysia, and Brazil were in favour of a reference to Principle 15 of the Rio Declaration on Environment and Development¹⁰. In contrast, Liberia (representing the African group of states), EU countries (e.g., Sweden and Germany, Norway) and the EC pledged for a reference to the more operational and thus more concrete definition of a precautionary approach in the Cartagena Protocol on Biosafety. Moreover, delegates from the African group started introducing text in favour of a moratorium on the suspension of GM trees.

During COP9 in May 2008 in Bonn, these draft recommendations were further negotiated. The African Group strongly insisted on the establishment of a moratorium option for GM trees and supported a respective paragraph, calling for the suspension of any release of GM trees, pending scientific assessment of potential impacts (ENB 9(448)). The EU negotiated, in contrast to SBSTTA, as one coordinated 'block' comprising the 27 member states under the lead of one delegate. They favoured, together with Brazil and others, an alternative paragraph which reaffirmed the need to apply the precautionary approach to the use of GM trees. However, disagreement persisted on whether the latter should be based on the Rio Declaration (e.g., Brazil, Canada) or the Cartagena Protocol (e.g. EU).

The negotiations in Bonn were accompanied by an active network of more than 150 NGOs who strongly pushed the idea of the moratorium. It is noteworthy that a recent resolution by the European Parliament was strongly backing this view. In this resolution, the Parliament "urges the Commission and the Member States to (...) ensure that COP9 adopts a final decision to ban all terminator technologies and agree a moratorium on the environmental release, including field trials, and commercial use of GM trees".¹¹

The longer the issue of GM trees remained unresolved, the more the NGOs tried to direct public attention to the issue. Therefore, additional pressure was placed on the EU delegates who were well aware of the public opinion in their home countries, rejecting the use of GM trees to a great extent (e.g., ECO 23(8)). This situation was noticeably threatening the positive image of the EU as an environmental leader during the negotiations on the PoW on forest biodiversity (cf. critical view in ECO 23 (7, 8)).

¹⁰ Principle 15 states: „In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.“

¹¹ European Parliament resolution of 24 April 2008 on preparations for the COP-MOP meetings on biological diversity and biosafety in Bonn, Germany; access under: <http://www.europarl.europa.eu>.

Owing to the difficult progress of the negotiations, the Columbian and the Swiss Ministers of the Environment were asked by the high level segment of the conference to help the Parties find a compromise. After five hours of intense negotiation, the Parties finally reaffirmed the precautionary approach and stated that the release of GM trees should only be authorized after the completion of studies in containment and on the basis of thorough, comprehensive and transparent risk assessments. Furthermore, the ministers supported an optional moratorium at the national level given its congruency to national legislation, thus satisfying the demands of the African Group and many NGOs.

The compromise reached through the support of the ministers was included in the revised Conference Room Paper 5 (CRP5/Rev.2), circulated on the last day of COP9. During the discussion of this document at the EU coordination meeting, the new text faced strong resistance by the EC. Their claim was that recognizing the moratorium option “in accordance with national legislation” would run counter to EU legislation. Accordingly, the EC demanded that the paragraph be re-opened and that the text on the moratorium option be deleted.

The EC standpoint was supported by the UK delegates. Other national delegates, e.g., from Germany, Sweden, Belgium, Denmark, Austria and the Netherlands, strongly insisted on keeping this arduously acquired compromised text and to not re-open the paragraph. They expressed their frustration about assuming a 'Bogeyman' position together with countries such as Brazil and New Zealand if the EU re-opened the compromised text and diminished the moratorium part. Ultimately, delegates found a way out of this internal logjam by changing the text concerning the optional moratorium from “*in accordance with their national legislation*” to “*in accordance with their domestic legislation*”. The new wording was considered compatible with EU legislation at national and supranational level as opposed to the former wording. Delegates felt that this amendment would not change the content of the achieved compromise for all of the other parties. To avoid lengthy discussions during the final plenary session, it was agreed that the change of wording should be presented as a formal intervention regarding the specific character of the EU as a supranational organization, concealing the underlying severe conflict within the EU on the legitimacy of the moratorium option for EU member states.

Accordingly, the EU asked for the re-opening of the paragraph at the final plenary session in order to make a small 'editorial change'. This was accepted by the plenary. Immediately after the EU intervention, other delegations were also seeking editorial changes, weakening the

already achieved compromised text by ‘small language changes’. For instance, Australia, supported by New Zealand, added a reference to “science-based” in a paragraph on risk assessments and deleted an explicit link to considering the potential socio-economic impacts of GM trees in the context of such assessments – a link which had been important for many developing countries in the negotiations up to this point. With no further objections from the former supporters of the initially ‘strong’ text, particularly the African group, the already achieved agreement was substantially weakened within the last few minutes of the final plenary session. This process was accepted by the EU delegates.

The following day, German media reported a “de facto moratorium” (FAZ 2008: 4, SZ 2008: 1) on GM trees which had been achieved at the COP9 negotiations. This news was based on an official press release by the German Ministry of the Environment. The reasoning behind this statement was that a strict interpretation of the precautionary principle needs to effectively result in a ban of GM trees due to scientific uncertainties. Yet, the deep rooted controversy among the EU institutions and member states regarding such a ‘moratorium’ and its legal acceptability was barely mentioned by any news media.

4. Discussion

In light of the two competing theoretical perspectives which were presented, the case of the GM trees negotiations under the CBD offers interesting insights. Initially, both approaches provide generally reasonable theoretical explanation for the current leadership role of the EU in global environmental policies. However, there exists no clear answer to the question about the EU's role as a 'true' environmental leader. The case of GM trees is very illustrative of this aspect, reminding us of the inherent complexity of the leadership concept "in both analytical and empirical terms" (SKODVIN & ANDRESEN 2006: 25). Leadership is often perceived as something implicitly positive and given. Yet, whether a policy fits the leadership 'criterion' mainly depends on normative judgments or, following SKODVIN & ANDRESEN (2006: 25), "may be crucially dependent on when the assessment is made." What is currently perceived as leading environmental policy may be judged differently in the future or elsewhere, e.g. in the USA. Thus, in the case of GM trees, all currently applied and advocated approaches of how to deal with GM technology may eventually bear legitimate claims on a potential leadership role from a pragmatic interpretation of the precautionary principle up to a moratorium on the release. In this manner the answer to our first question on 'true' leadership mainly reveals the inherent relativity of leadership.

Accordingly, the answer to the question regarding what impedes or promotes the leadership role of the EU in international forest biodiversity policy needs to give credit to this relativity. Taking into account this elusive and context dependent character of leadership and reflecting on the presented case study, presumptions about the EU as an environmental leader, on one hand, and about the exclusive role of normativity for the global environmental performance of the European Union, on the other hand, are to be received with caution. Hence, assuming the EU is an actor *sui generis* with a highly advanced and normatively aligned yet 'leading' environmental agenda appears to be a bold venture for various reasons.

Without a doubt, normative 'power' plays a significant role in the EU's international environmental relations as it basically characterizes the self-perception of many EU delegates. The EU delegation differs in character from the delegations of most other industrialized countries, as well as some of the delegations of countries with emerging economies like Brazil or China. The Brazilian delegation at COP9/CBD, for instance, seemed to be dominated by diplomats whose professional mission was to push through predefined wording regardless of the indignation of many delegates and the NGO community.

Concerning the factors impeding or promoting strong leadership, it was clear that the EU's leadership 'works' within certain constraints, surfacing in the (preparation to the) negotiations on GM trees.

Firstly, it typically reaches its limits at the borders of important domestic interests, mostly uttered by member states. When conceptualizing the EU as an actor of its own kind, i.e., by pressing it into a so called 'spatial mode', "the characteristics of actors, their inequality and possibly conflicting interests, are flattened out and submerged, and the quality of social conditions/relations and their transformation are pushed off the table" (THERBORN 2002: 404). Internal discordance and the principle of subsidiarity are major impediments to the EU in terms of its supposed advanced environmental policy. Coordinating 27 member states with varying and even conflicting interests on certain issues often produces decisions at the level of the least common denominator. Thus, individual countries may well impede environmentally ambitious policy attempts that are promoted and favored by other, or even the majority of, EU members. This discordance seems to continue even at a supranational level, as reflected in the controversial position different EU institutions take with regard to GM technologies.

Secondly, normative power is effectively restricted and virtually canalized by the legislation of the EU itself. Being the result of long-lasting consensual coordination and negotiation processes of the EU bodies and the member states, EU legislation is particularly reluctant to change. As a consequence, the EC delegates seemed to literally watch for inconsistencies in the legislation and negotiated text. As impressively shown by the case of the GM trees, they will insistently intervene if a negotiated text runs counter to EU legislation. Hence, the EU immediately loses its environmental leadership position when others, like the African group in the case of GM trees, exceed the scope provided by EU legislation, be it for strategic or other reasons.

Both internal interest coordination and the EU legislation constitute a 'sacred cow', effectively limiting the normative power of the EU in international negotiations. Moreover, 'positive' normative power can switch completely if others suspect the EU to conceal interests behind the sheep's clothing of true environmental concerns. This was the concern of many EU delegates when the already achieved compromise on the release of GM trees had to be reopened for internal reasons. Hampering common or particular national interests thus seem to play a crucial role in the EU's role as a leader in global environmental policy.

As we tried to show in this paper, leadership is issue-specific. So are blockades. While countries may be laggards in certain fields, they may still be generally strong regarding other

fields of environmental policies (JÄNICKE 2005). The EU's reluctant position on GM food as compared to its openness towards GM technology in pharmaceuticals, as discussed by FALKNER (2007) illustrates this ambiguity. Generally speaking, the EU often shows a strong willingness to support ambitious programs for global biodiversity. In the discussed case, for instance, the EU supported a much more concrete and less symbolic definition than other influential parties regarding the precautionary principle as understood in the Cartagena Protocol on Biosafety.

Accordingly, the EU is more than just a mere sum of its parts as its policies exceed the least common denominator in many cases. In contrast to arguments of strategic action within and by the EU, other scholars from a multi-level governance or a network perspective see the influential capabilities of single actors in a complex governance system, like the EU, as being limited (e.g. GROSSMANN 2004). "No one, not even the most powerful state executive, is capable of predicting fully what will eventually emerge when a new policy is pitched into this swirling pattern of alliances" (FAIRBRASS & JORDAN 2001: 507). The EU may as well be perceived as a more or less self-organizing network; its overwhelming complexity due to its current multi-sectoral and multi-level governance system makes any kind of steering or coordination difficult. "In daily policy-making, it is often difficult enough for national officials to assess the potential impact of a Commission proposal in their own territory" (SCHOUT & JORDAN 2005: 210). Consequently, modes of governance evolved within the particular polity setting of the EU that eclipse traditional power relations and even allow for non-coercive bargaining (NEYER 2004); picking up the argumentative line as shared in the normative approach promoted by MANNERS. In particular, the contrast between the restricted amount of civil servants and the complex political system with wide ranging duties has been repeatedly identified as the major driver for this open and inclusive policy making system. Such a set-up allows for deliberative problem solving modes (e.g., NEYER 2004) wherein the most convincing argument prevails over power and opposing interests are reconciled.

According to SCHREURS & TIBERGHIE, a key feature in this respect was *multi-level reinforcement*. Here, the leadership of the EU in several policy arenas was the result of a "dynamic process of competitive multi-level reinforcement among the different EU political poles within a context of decentralized governance. [...] This upward cycle of reinforcing leadership within a quasi-federal system has been triggered by and been dependent upon *strong public support and normative commitment*" (2007: 22, highlights by the authors). Such assumptions oppose or put in perspective the approaches which suggest either strategic action or normative ends as the sole underlying principles to EU global environmental policies.

The openness of the polity may create many possibilities for vetoes or ‘deadlocks’, but it also opens numerous avenues or ‘leadership points’ in favor of new policy approaches to the EU agenda (SCHREURS & TIBERGHIE 2007; PRINCEN 2007). In the course of deliberation and due to this specific multi-level structure, results may significantly exceed a mere common bottom line. Therefore, although strategic actors and (their) normative motivation, as shown, are definitely not irrelevant, common EU policies still hold high potential for leadership.

Coming back to the international stage, the last of the introductory questions addressed the ways in which the EU’s role as an environmental leader in global forest biodiversity policy could be strengthened. An outstanding domestic biodiversity policy on European forests with ambitious goals and instruments is indeed an important precondition for an enduring international leadership position. When the limits of the European legislation determine the limits of its global environmental leadership, exemplary legislation would set the stage for future leadership. Overall, the EU’s biodiversity policy in forests is mainly based on the contested Natura 2000 network. It would exceed the scope of this paper to discuss whether and in how far this domestic effort meets the pre-requisites for a respective global leadership position. The same holds true for the EU’s legislative framework on GM trees.

Nevertheless, some practical recommendations for strengthening the EU’s leadership position in forest biodiversity as well as in other policy domains can be identified based on our analysis:

- Improved internal pre-coordination, including an explicit predefinition of the scope for negotiation and shared bottom lines. Although there were notable efforts to prepare the member states by holding an informal expert meeting prior to the negotiations, it turned out that the boundaries for the scope of negotiation were unclear for many delegates (i.e., if they corresponded to EU legislation, or to particular interests of member states).
- In this context, the role of the EC might be strengthened as the Commission’s servants have the most experience with EU legislation and are often aware of the particular interests of different member states.
- Correspondingly, one could consider reducing internal EU coordination *during* the negotiations in order to increase the scope of action for the negotiator based on a clear mandate (to be defined in the forefront of the conferences). In this context, single professional diplomats with a thorough understanding of the issue might be employed.

This would, however, presuppose the creation of a definition of bottom lines by the member states (or even the European Commission, cf. point 2) prior to negotiations.

In conclusion, it might be worthwhile to come back to MANNERS concept of normative power when thinking about how the leadership role of the EU in global environmental policy can be strengthened. As we have pointed out throughout the course of this paper, the image of the EU in global environmental policy is still progressive compared to others. Moreover, the European model of integration is well recognized globally and serves as a role model for diverse regional integration processes. In this sense, the EU is well advised to use the ‘normative power’ of its own existence more progressively: Nobody expects the EU to negotiate in an altruistic manner which might contradict domestic interests. However, the extensive and profound experience in multilateralism which was developed and promoted by the Union may serve as a ‘blueprint’ in global environmental policies. One could consider the evolution of the EU as a ‘matter of European urgency’, i.e., a response to a relative loss in the political and economic importance of its member states in comparison to booming emerging countries. In light of the most recent global environmental challenges, this European multilateralist approach appears significant and advantageous. “When stakes are high, values diverge and time-scales are long [as in the case of GM trees], purely ‘technical’ or expert approaches to risk assessment and governance are not robust” (O’CONNOR & VAN DEN HOVE 2001: 80). In such ‘post normal’ cases, leadership remains relative and undefined with regard to content since finite ‘truth’ judgments are obstructed. However, policy decisions on risks and the environment and therefore on leadership may be re-conceptualized to instead focus on *procedures* or the process. Apart from the necessary involvement of expertise, such processes require stakeholder participation beyond the traditional democratic approaches, in order to back up decisions with the trust and legitimacy vis-à-vis potentially high societal consequences (ibid.).

If normative power was framed as a matter of urgency as opposed to a solely ‘normative’ concept in terms of ‘content’ or ‘ends’, both theoretical approaches discussed in this paper could eventually be brought together. In this respect, the EU may be conceptualised as a ‘procedural’ leader with unique interwoven multi-level governance structures that, despite or maybe even because of its complexity and inherent contradictions, allows for deliberative governance modes at an unprecedented rate and spatial scale. In this view, European

governance structures may serve well as a role model for regional or even global environmental governance.

5. Conclusion and policy implications

In this last chapter, we seek to draw some preliminary and rather general conclusions regarding the challenges and chances for such architecture, yet on a limited scale, i.e., for transatlantic environmental policy cooperation, with a particular focus on California and the EU.

The examples and the case of GMO have shown that there is no consensus on fundamental environmental principles on both sides of the Atlantic – neither on a supra-national, nor on a national level. This refers especially to the general interpretations of the precautionary principle and the different perceptions of risk among societies associated with GMO. The fundamental discrepancies between and within the respective European and American positions appear irreconcilable. Surveys focusing on the public perception of risks associated with GMO, however, show that the issue splits both societies into groups of opponents and supporters.¹² In general, ideological divergences such as in the case of GMO prevail and may significantly impede further efforts of coordination. Yet, unresolved and new global environmental problems challenge all societies alike. Those similar concerns reveal both a tremendous potential and a necessity for improved mutual exchange of knowledge and information in order to foster better (global) policy coordination.

In this respect, the discussed relativity of leadership not only holds a risk for ideological leadership conflicts – as impressively observed between the EU and the USA on the issue of Genetic Engineering – but also lays the foundations for a fruitful discursive competition between leaders in international environmental policy, specifically between the EU and California. It is useful to highlight the latter example in this context considering its outstanding sub-national environmental regulation, qualifying California as an environmental leader within the American context. Major impulses for progressive national environmental policies typically emanated from California, as was the case with car emission standards. These examples underline the finding that environmental leadership is issue-specific and may be exerted at different governance levels.

¹² For the U.S. supported by the investigations of SHANAHAN (no year).

Accordingly, diversity in leadership could even be evaluated positively as it holds plenty of opportunities to argumentatively challenge the other's solution to environmental problems and, consequently, to promote global dialogue and discourse, allowing for mutual learning processes. However, the indispensable essentials for such 'competitive' learning process are, as previously discussed, of a procedural nature and encompass, e.g., transparency and open dialogue. The EU and the US, specifically California, could utilize some kind of permanent forum, like policy communities (see MARSH & RHODES 1992), where competing ideas can be openly discussed.

Still, the question remains: what is an appropriate level for such coordination and how can different federal structures with varying degrees of competences be included? In our opinion, it is necessary to have a governing framework which provides sufficient room and flexibility for 'leaders'. In other words, concerning the efforts to address global environmental problems and issues such as GMO, it appears that all relevant actors need to submit to frameworks such as the CBD in the case of biodiversity. Unfortunately, the USA is not a party to the convention, unlike 168 other countries. A ratification of the USA would symbolize a major step in creating such a common basis for transatlantic and even global coordination. However, possibilities under the umbrella of the Convention for the state of California, which has no competence to participate as a party, to demonstrate leadership are insignificant if they are not coordinated with the U.S. government.

Thus, while the convention will only try to establish a common framework with rules and modalities for national or supranational governments, it should not impede leadership and learning from the outset. Leadership often evolves or takes place at lower or implementation levels with sub-national governments, communities, private people and businesses as major actors. An illustrative example is the Californian effort to mitigate the emission of greenhouse gases despite the official position of the former federal government on the issue of human-induced climate change. In light of changes, this 'early action' makes California a leader in this issue and might provide a significant comparative advantage. It also shows that if leadership cannot be achieved on the next higher governance level, it should not refrain lower levels from taking action – especially in cases with insufficient knowledge of the risks associated with new technologies. Although a joint opinion significantly increases the influence in large multi-stakeholder processes like the CBD, particular national interests and national positions may – as the case of GMO has shown – dilute a strong issue-specific standing and, as a result, prompt people to question the ability of these actors to be the environmental leader. In this respect, a focus on learning from 'procedural' leadership as

currently exemplified by the EU holds a high amount of potential to find common grounds and joint practical political solutions to shared environmental problems. The solutions may not be the 'best' or 'true', but they would/will be the most legitimate and trusted: "Leadership is not manifested by coercion, even against the resented. Greatness is not manifested by unlimited pragmatism, which places such a high premium on the end justifying any means and any measures" (Margaret C. Smith)

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