

**Implementation of the EU Strategy on Sustainable Development
within European Climate Policy:
Achieving Synergies for Green Growth through Mainstreaming**

*Conference Paper for the International Society on Ecological Economics Conference
2012 in Rio de Janeiro, Brazil*

Katharine Rietig
London School of Economics and Political Science
Houghton Street; London, WC2A 2AE
k.m.rietig@lse.ac.uk

Abstract

The European Union regards green and sustainable development with its environmental, economic and social elements as fundamental objective and principled priority. It promotes green growth and low carbon economic development in its communications internally and externally. This paper contributes to the area of green development by examining and evaluating the EU Renewable Energy Directive and the EC's proposal to mainstream climate objectives into 20 percent of the post 2014 EU budget with the Common Agricultural Policy as one flagship initiative. It assesses these two central policies in the light of the EU Sustainable Development Strategy to identify how well the EU and European Commission implement the principled priority of sustainable development. The assessment is based on five central criteria for genuine climate policy integration: policy cohesion and integration, flexibility, effectiveness of resource use, socio-economic considerations as well as justice and public participation.

Keywords: Sustainable Development Strategy; mainstreaming climate policy; green-wash; climatewash; climate policy; effectiveness; European Union

Word count: 7,400 (incl. footnotes, tables and boxes/ excl. bibliography [9200])

Introduction

The European Union regards green and sustainable development with its environmental, economic and social elements as fundamental objective and principled priority. It promotes green growth and low carbon economic development in its communications and legislation internally and externally. Environmental protection, sustainability and climate policy are core competences of the EU, which is perceived by other countries as providing a leadership role in those areas (Schreuers and Tiberghien, 2007).

Combating climate change and preventing its most severe impacts by limiting global temperature increase to 2°C is a declared top priority of the EU. To contribute to this global objective agreed to in the Cancun Agreements, the EU is pursuing its 2020 Climate Strategy (EC, 2008; EC, 2011d). The Climate Strategy aims to reduce GHG emissions by 20 percent (30 percent if the condition of comparable international efforts is fulfilled) from 1990 levels in 2020, as well as upscale the share of renewable energies to 20 percent and increase energy efficiency by 20 percent. The EU Emission Trading Scheme (EU ETS) contributes to the GHG reductions, which is facilitated by EU internal burden sharing decisions. However, to meet the overall target of reducing emissions by 80 to 95 percent from 1990 levels by 2050 (EC, 2011d), also sectors not covered by the EU ETS need to mitigate GHG emissions if the EU Roadmap and any climate targets beyond the EU 2020 strategy shall be achieved. Green growth and low carbon economic development are policy options to make green development operational as they combine the environmental and economic dimensions of sustainable development by providing co-benefits.

There are two options for operationalising the principled priority of sustainable development in climate policy. First, the traditional single purpose policies

such as reducing GHG emissions through command-and-control regulation, market-based instruments or voluntary agreements. Second, climate policy can be integrated into other sectoral policies – which is referred to as Climate Policy Integration – with either direct climate co-benefits such as renewable energy (CPI type 1) or in sectors with no automatic co-benefits such as agriculture or transport. This ‘mainstreaming’ requires financial incentives such as making public funds conditional upon the fulfilment of climate objectives as well as regulatory support (CPI type 2) (see Rietig, 2012a). The approach of Climate Policy Integration¹ emerged as analytical field from Environmental Policy Integration,² which has been embedded into the EU Treaty as principled priority and is referred to as Climate Policy Integration (CPI). The European Commission increasingly pursues the approach of Climate Policy Integration framed as mainstreaming climate action into other policy areas.

The EU promotes the principled priority of sustainable development and environmental values in its treaties and in its EU SDS. This poses the question if the new EU climate policy approach of integrating climate change considerations into other policy areas with no automatic co-benefits for climate action areas via mainstreaming reflects this commitment or if there is a gap between the principled priority of sustainable development and its implementation via legislation, especially given the ongoing financial and economic crisis. Do the European Commission’s (EC) climate policy proposals on mainstreaming implement the EU SDS? What criteria need to be fulfilled to accept a legislation or legislative proposal as genuine Climate Policy

¹ Ahmad, 2009; Beck et al., 2009; Dowlatabadi, 2007; Dupont, 2010; Henstra and McBean, 2009; Howden et al., 2007; Kok and de Coninck, 2007; Kok et al., 2008; Mickwitz et al., 2009a; Mickwitz et al., 2009b; Patel et al., 2002; Patel et al., 2003; Rietig, 2012; Van Bommel and Kuindersma, 2008; Widmer, 2010; Yamin, 2005.

² Adger and Jordan, 2009; Feindt, 2010; Hertin and Berkhout, 2003; Jordan and Lenschow, 2000; Jordan and Lenschow, 2008; Jordan and Lenschow, 2010; Lenschow, 2002; Knudsen, 2010; Lafferty and Hovden, 2003; Lenschow, 2002; Nilsson and Persson, 2003; Nilsson, 2005; Nilsson and Eckerberg, 2007; Weale 1992; Wilkinson, 2009.

Integration instead of simply ‘climatewashing’ economic development policies without genuine climate benefits? Answering these questions implicates safeguards for Climate Policy Integration and Sustainable Development that should not be dropped in the political bargaining process following the publication of a legislative proposal by the European Commission.

This paper contributes to the area of green development and climate politics. It evaluates the post-2013 Common Agricultural Policy, one of the flagship funds under the EC's proposals on mainstreaming climate policy in the light of the EU SDS to identify how well the EC implements the principled priority of sustainable development in its legal proposals on climate policy. In its latest proposal for the 2014-2020 Multiannual Financial Framework, the EC proposed to allocate 20 percent of the EU's budget to measures that integrate climate mitigation and adaptation, i.e. mainstream climate action. The paper examines this shift in EU climate policy from the traditional single-purpose policy to reduce emissions (such as the European Emission Trading Scheme) towards the approach on mainstreaming climate mitigation and adaptation (“climate action”) into other policy areas and determines if this new approach better implements the EU SDS than the single-purpose strategy. The central argument is that for mainstreaming to be effective and neither be misused as ‘climate-wash’ nor to be watered down in the public debate surrounding European policy making, it needs to be compatible with the principled priority of sustainable development in the EU and meet criteria for Climate Policy Integration that are based on the EU SDS.

To this end, the paper first analyses the objectives of the EU SDS and the literature on implementing sustainable development objectives to identify criteria to evaluate the EC's implementation of the EU SDS in its legal proposals related to mainstreaming climate policy. It then uses the evaluation criteria to assess the Renew-

able Energy Directive. The second part evaluates how well the new climate mainstreaming approach implements the EU SDS and meets the resulting criteria for effective mainstreaming by analysing the Common Agricultural Policy as flagship component of the EC's proposal published in October 2011 to allocate 20 percent of the 2014-2020 EU Budget to expenditures that benefit climate change mitigation and adaptation. It specifically analyses how the objectives of the EU SDS that contains climate action as sustainability indicator are mainstreamed into agriculture policy. Mainstreaming measures include priority for low carbon technologies and infrastructure, conditionality of funds upon fulfilling criteria in agriculture that contribute to increasing crop resilience (and thereby food security) and carbon sinks as well as priority for climate related research and development expenditures.

Criteria for implementing the EU SDS in climate policy integration

In the political debate the term 'green growth' is also increasingly used in this context, which refers to the integration of environmental and climate objectives into economic development, but also as a general catchphrase that paints economic development 'green' without actually including co-benefits for climate action or environmental objectives. Thus, 'green growth' can also result in 'greenwash' or 'climatewash' (Lightfoot and Burchell, 2004; Rowell, 2002) if meeting the criteria for sustainable development set out in the European Union's Sustainable Development Strategy (SDS) (European Council, 2006; 2007) is not followed through as development that is compatible with environmental and social objectives. To determine if a policy proposal is genuinely integrating climate policy as effective mainstreaming or if the integration is merely rhetorical, the debate requires criteria that are compatible with

the EU SDS. In the political negotiation involving many lobbyists with different interests, the approach of ‘green growth’ and ‘mainstreaming’ can easily be framed in a way that changes the policy towards very weak climate objectives or to the extreme of ‘climatewashing’ economic development policies. To avoid this from happening, the debate requires a set of easily to apply criteria based on sustainable development that help safeguard mainstreaming as a genuine climate policy integration approach. The EU’s Sustainable Development Strategy is a suitable starting point as it places climate mitigation and adaptation at its heart as a central indicator (Eurostat, 2009: 66-92).

Sustainable development aims to overcome the fragmentation between sectors by integrating social and especially environmental concerns into economic development, which relates it to the slightly different concept of Environmental Policy Integration (Jordan and Lenschow, 2008, 2010; Lafferty and Hovden, 2003) and the more specific approach of Climate Policy Integration (Dupont, 2010; Jordan and Lenschow, 2010).

Especially the integration of climate objectives into other policies via mainstreaming into policy areas that have no automatic co-benefits for climate action (type 2 Climate Policy Integration; Rietig, 2012a) carries the danger of not being beneficial towards reducing emissions. Instead, the mainstreaming could become symbolic with high-aiming objectives, but no measures in the actual legislation that would integrate climate considerations and provide tools for enforcement and be thus closer to rhetoric than reality, i.e. policy ‘climatewash’ that fails to deliver on the objectives (Rietig, 2012b). Consequently, criteria for genuine climate policy integration that are in line with the EU SDS and its indicators for sustainable development (Shields et al., 2002; UNCSC, 1987; 1996) are central to avoid climatewash and to evaluate ex-ante if policy proposals and legislation that claim to mainstream climate action actually do so by

meeting these criteria for climate policy integration. The following table introduces the analytical framework based on Rietig (2012b) to evaluate if policies that aim to integrate climate considerations actually do so in a way that is compatible with sustainable development:

CPI Criteria	Explanation of criteria for CPI	Indicators for measurement
Policy integration and Policy coherence	<ul style="list-style-type: none"> - Objective to reduce GHG emissions and adapt to unavoidable consequences of climate change - Integration of sustainable development and especially climate policy objectives into other sectoral policies and on the national level; - No contradiction between policy objectives 	<ul style="list-style-type: none"> ⇒ Reference to climate strategy and measurable reduction of GHG emissions through policy measures ⇒ References to climate policy or climate mainstreaming in policy proposals/ legislation or on the national level
Flexibility	<ul style="list-style-type: none"> - Learning from experience - Use of best available knowledge - Adaptability to local conditions 	<ul style="list-style-type: none"> ⇒ Reference to flexibility by setting targets, but granting discretion in choice of means ⇒ Base decisions and actions on local conditions/ subsidiarity
Efficiency	<ul style="list-style-type: none"> - Efficient management of natural resources to maintain integrity of ecosystems - Efficient use of energy and resources for production / consumption (minimize input for achieving objective) 	<ul style="list-style-type: none"> ⇒ Regeneration, substitutability, assimilation and avoiding irreversible depletion of non- renewable natural capital (including biodiversity) ⇒ Make polluters pay through internalization of environmental externalities ⇒ Efficient use of resources, e.g. discourage waste, minimize input through incentivizing technological innovation and prices reflecting environmental externalities
Socio-economic development	<p>Achieve GDP growth per capita that is</p> <ul style="list-style-type: none"> ○ Decoupled from environmental pollution and GHG emissions; ○ Taking environmental costs into account; ○ Socially inclusive 	<ul style="list-style-type: none"> ⇒ Green growth, low carbon economic development or evidence for decoupling of growth from environmental degradation ⇒ Investment in clean technologies without irreversible negative effects on natural resources ⇒ Awareness of enabling all parts of society to profit from economic growth and to participate through sustainable consumption

		tion
Justice and participation	<ul style="list-style-type: none"> - Involvement of stakeholders through participation mechanisms - Intra- and intergenerational equity 	<ul style="list-style-type: none"> ⇒ Existence of and free access to public participation and consultation mechanisms ⇒ Reference to stakeholders impacted by policy ⇒ Mechanisms for complaints and redress for injustices

Table 2. Criteria for climate policy integration avoiding 'climatewash'. Compiled by author based on European Council, 2001; EC 2005; Eurostat, 2009 Moldan et al., 2012; OECD, 2001).

Analysis of Climate Policy Integration in the European Union

For climate policies to be socially, economically and environmentally acceptable, they need to be in line with the objectives and main indicators of sustainable development as determined by the European Sustainable Development Strategy (European Council, 2006). This section analyses one case each of the above introduced distinction of type 1 and type 2 climate policy integration and determines if they meet the criteria of the EU SDS or if there is a gap between rhetoric, i.e. the EU SDS criteria, and the reality of the policy proposal/ climate relevant legislation.

The method used is document analysis of official documents published by the European Community regarding the two case studies such as Communications from the European Commission to the European Council and the European Parliament, policy documents, directives and regulations and associated supplementary material such as regulatory impact assessments. The first case study is informed by data from 7 interviews conducted in March and April 2012 with officials at the European Commis-

sion, the European Parliament and in the UK who were directly involved in drafting and negotiating the EU Renewable Energy Directive and its predecessors. The second case study is supplemented by data from observation at 12 conferences discussing the Common Agricultural Policy post-2013 proposal in the European Institutions between October and December 2011. The criteria and indicators for sustainable development and climate policy integration identified in the previous section are applied to the two case studies to determine if and how well the EU integrates climate policy into two central energy and (rural) development policies and how they meet overall sustainable development objectives and criteria.

Climate Policy Integration in the Renewable Energy Directive

Climate Policy Integration type 1 refers to sectoral policies with inherent co-benefits for climate mitigation or adaptation such as energy efficiency, innovation in clean transport systems and especially renewable energy, with its three components of electricity, biofuels and heating. The Renewable Energy Directive of 2009 (EU, 2009) integrates two earlier directives related to renewable energies, the Renewable Electricity Directive of 2001 (EU, 2001) and biofuels directive of 2003 (EU, 2003a). It covers with biofuels, electricity and heating all major areas of renewables related to the EU's 20-20-20 strategy across the energy, innovation and transport sectors (Fouquet, 2012).

Policy Integration and Policy Coherence

To fulfill the criterion for avoiding climatewash but genuinely integrating climate policy, the directive first needs to meet the two measurable components of pol-

icy integration and policy coherence, the objective to reduce GHG emissions and adapt to unavoidable consequences of climate change as well as the integration of sustainable development into other sectors and on the national level without contradictions to other sectoral policies. The first aspect of the climate policy and coherence indicator is met as the RED makes direct references to the 2020 climate strategy and measurable reductions of GHGs. The RED explicitly refers to renewables as having “overall high sustainable and environmental beneficial quality” (EU, 2009: Recital 42). It outlines how central renewable energy and energy efficiency are to meet the obligations under the Kyoto Protocol of the UNFCCC (UNFCCC, 1998) and any post-2012 climate commitments and setting overall mandatory targets of 20 percent for renewable energies and 10 percent biofuels in transport with instructions to member states to adopt a national renewable energy action plan (EU, 2009: Recital 1, Art. 3, Art. 4).

The consumption of renewable energies is a key indicator under climate change and energy heading used by Eurostat to determine the achievement of sustainable development in the EU (Eurostat, 2009: 12). The RED furthermore outlines the co-benefits of renewables not only for climate mitigation, but also energy security and thereby energy dependence, the second sub-indicator of sustainable development used by Eurostat which is further split up into renewable electricity, biofuels and combined heat and power. All sustainable development indicators are core elements of the RED except for the implicit tax rate on energy (EU, 2009: Recital 52; Eurostat, 2009: 12, 67-91).

The second sub-indicator for measuring genuine CPI is policy coherence by avoiding contradictions with other sectoral policies. The RED makes explicit references to this indicator by reminding member states to avoid contradiction between

policies and take into account the principled priority of environmental considerations, especially in the politically contested aspect of biofuels (EU, 2009: Recitals 44 and 68). Loopholes that could lead to contradictions between the RED and sustainable development are closed such as substituting biofuels with other bioliquids not subject to sustainability criteria defined by the RED, the unconditional import of renewable energies from third countries or adverse effects to GHG mitigation through the release of soil carbon as a result of indirect land use changes or adverse effects on global food prices (EU, 2009: Recitals 67, 70, 85; Articles 9, 17 and 18).

Flexibility

The second criterion for genuine Climate Policy Integration based on the EU SDS is flexibility in terms of learning from experience, the use of best available knowledge and adaptability to local conditions. The RED refers to learning from experience or best practise with setting up the transparency platform and encouraging member states to learn through cooperation and initiatives such as the positive example of minimum requirements on renewables use in new buildings on the regional and national level (EU, 2009: Recital 35, 47; Article 24). Adaptability to local conditions and subsidiarity is emphasized by setting legally binding overall and national targets, but granting member states discretion in how they achieve their targets and encouraging them to use local competitive advantages and cooperation to overachieve their minimum requirements (EU, 2009: Recitals 3, 19, 23, 35, 47; Article 2).

Efficiency

The efficiency criterion refers to the efficient management of natural resources to maintain the integrity of ecosystems and the efficient use of energy and resources

for production or consumption in terms of minimising input for achieving a set objective as well as good, i.e. efficient governance and administration (see table 3). Natural resource use and environmental protection is taken up in the RED in the form of the biofuels component and setting up specific sustainability indicators, which predominantly refer to specifics of land use but do not explicitly match or refer to the indicators of the EU SDS used by Eurostat (2009). There is only an implicit match as they can be interpreted as safeguarding the non-depletion of critical natural capital and the conservation of critical ecosystem services from a strong sustainability point of view (Neumayer, 2003).

The first efficiency specific criterion for measuring CPI is the regeneration, substitutability, assimilation and avoidance of irreversible depletion of non-renewable natural capital, including biodiversity. This is met by not accounting for biofuels produced from biomass, including through direct or indirect land use changes, from land with high biodiversity value, protected areas or primary forests as well as land with high carbon stock that would be released, such as wetlands (EU, 2009: Recitals 65, 66, 69; Article 17). The European Union takes a ‘stick and carrot’ approach to the polluter pays principle by establishing level playing fields on the market for sustainably produced biofuels using price premiums and encouraging member states to reward especially sustainable practises, with additional premiums and encouraging further R&D (EU, 2009: Recitals 76 and 89). Thus, environmental externalities are internalized through providing incentives for sustainable biofuel production. However, this approach is weak as it only reduces disadvantages for sustainable production of biofuels while it hardly discourages harmful practises through higher prices or penalties. The efficient use of resources is encouraged through emphasizing the importance of increasing energy efficiency in meeting the transport sector target of 10 percent bio-

fuels in a sustainable manner (EU, 2009: Recital 18). The good governance criterion is met in the form of efficient and transparent administration and administrative decisions that avoid unnecessary burdens to stakeholders by demanding objectiveness, transparency, non-discrimination and proportionality from authorities responsible for the authorization of renewable energy plants and by calling for planning rules to take into consideration environmentally beneficial and cost-effective renewable heating, cooling and electricity equipment (EU, 2009: Recitals 40, 41).

Socio-economic development

Socio-economic development is the perhaps most central sustainable development criterion for successful climate policy integration as it can also be linked to the political strategy of ‘green growth’ or ‘low carbon economic development’ in the EU and member states (e.g. Germany and the UK) emerging from the economic and financial crisis of 2008/09. Socio-economic development refers to achieving socially inclusive GDP growth that is decoupled from environmental pollution and GHG emissions and takes into account environmental costs. The RED refers indirectly to the indicators of investment in clean technologies without irreversible negative effects on natural resources, stimulating low carbon economic development and social inclusion when recognizing the importance of renewable energies for stimulating local growth, investment and employment in member states, certainty for investors and encouragement of R&D in clean technologies (EU, 2009: Recitals 3, 14), especially social cohesion, job creation and employment opportunities with SMEs strengthening local economic development in an environmental sustainable way (EU, 2009: Recitals 4, 6). It furthermore points towards solidarity when suggesting exemptions for mem-

ber states that would be disproportionately disadvantaged economically and in their social development (EU, 2009: Recital 33).

Justice and Participation

The final criteria for climate policy integration are justice and participation, i.e. the involvement of stakeholders through participative mechanisms as well as inter- and intragenerational equity. These two key aspects of social sustainability in the EU SDS can be measured for the integration of climate policy in terms of access mechanisms to public participation and consultations, references in the directives to stakeholders affected by decisions and especially mechanisms for complaints and redress for injustices resulting from the directive. The RED meets the participation criterion exceptionally well in a number of articles that go beyond the standard participation mechanisms during regulatory impact assessments of directives. Direct reference is made to the Aarhus convention (EU, 2009: Recital 90) on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters and followed up in the Articles with provisions for a Transparency platform (EU, 2009: 24) and the obligation for member state to provide the public with information “on the availability and environmental benefits of all different renewable sources of energy for transport” (EU, 2009: Article 21). Furthermore, Article 17 (EU, 2009) demands reporting on the ratification and implementation of international treaties linked to basic human rights, social and environmental sustainability in third countries involved in the provision of biofuels such as the labour rights endorsed by the International Labour Organisation and the Cartagena Protocol on bi-

osafety or the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

Evaluation of CPI type I in the Renewable Energy Directive

Overall, the Renewable Energy Directive is in its objectives and components a central example of type 1 climate policy integration as it carries inherent co-benefits for climate mitigation. Its development and design was strongly influenced by the necessity resulting from the Kyoto Protocol's international commitments to design and implement climate mitigation measures. This points towards the influence of different levels of governance on European policy making and, more specifically, the result of a 'two-level' game between the key negotiators of the European Community at the UNFCCC Conference of the Parties-3 in Kyoto representing the EU's international position, and the resulting need to implement and deliver on the targets set on the international level afterwards on the EU and national levels (Hooghe and Marks, 2003; Putnam, 1988). The EU's international negotiation position on climate change (one level; Putnam, 1988) and the willingness to push for a legally binding international treaty on GHG reductions led to the necessity on the second level (Putnam, 1988) to deliver on the Kyoto Protocol Annex-1 commitments and required the implementation of measures to reduce GHGs domestically.

Consequently, authority in the case of developing renewable energy policy in the EU was not left to the nation state(s), but dispersed across multiple levels of governance (Hooghe and Marks, 2003: 241) from the national level, which can be re-

garded as a driver, to the international level that set the framework agreement (Kyoto Protocol) back to the European level. There the European Commission needed to think about policies to meet the Kyoto-Commitments and thus proposed the renewable energy strategy (Senior EU official 1, 2012), which was proposed to the nation states and negotiated in a multi-level governance process (Hooghe and Marks, 2003).

Furthermore, renewable energy has a relatively uncontested nature based on an overall consensus that makes renewable energy generally socially desirable. The RED directive meets the key criteria for climate policy integration and conforms to the objectives of sustainable development introduced above. However, it mainly refers to the criteria for sustainable development and climate policy integration in the recitals, not in the legally binding Articles that could be enforced via court decisions. Recitals are explanations that set the context in which the European legislation is to be interpreted, implemented and enforced (EURLex, 2012).

Consequently, the Renewable Energy Directive does meet the criteria for sustainable development and climate policy integration, but only in a passive way that provides safeguards for highly unsustainable practises, especially in the area of biofuels. Given that renewable energies are inherently co-beneficial for climate policy and constitute an automatic integration of climate policy, it is debatable if they require explicit references in the Articles or, if the context and explanations provided in the Recitals can be seen as sufficient in the case of type 1 Climate Policy Integration. As long as the actions mandated in the articles match the objectives of the directive and do not leave loopholes that could turn the directive in a way that it would contradict climate mitigation or adaptation measures, mentioning the climate change objective in the recitals of a policy with inherent co-benefits for climate mitigation should be sufficient.

The Common Agricultural Policy in the EC's proposal of mainstreaming climate action into 20% of the 2014-2020 Multiannual Financial Framework

The Common Agricultural Policy (CAP) (EC, 2011b, 2011c) is one of the flagship initiatives of the new climate mainstreaming approach proposed by the European Commission in 2011 for the 2014-2020 Multiannual Financial Framework of the European Union (EC, 2011a). This type-2 Climate Policy Integration, i.e. mainstreaming, refers to policies that do not automatically contribute to climate mitigation, but require intervention through legislation, conditions and financial instruments. The Common Agricultural Policy covers agriculture, land-use, forestry and rural economic development as other areas of major GHG emissions and therefore has a high relevance for climate mitigation and adaptation measures. It is one of the central funds under the European Union's Common Strategic Framework (CSF), which sets sustainable development as a central horizontal principle. Core elements of sustainable development in the CSF are besides the polluter pays principle enshrined in Article 192 of the EU Treaty that at least 20 percent of the EU's budget in the period between 2014 and 2020 are allocated to climate change objectives (EC, 2012a, 2012b, 2012c). The CSF requires Member States to provide comprehensive information regarding the amount of their climate related expenditures and to track biodiversity-related expenditures (EC, 2012a: 11).

The Common Agricultural Policy is split up into two major pillars. The first pillar is on direct payments to farmers across Europe and a major income source. It contains an overall budget of 281.8 billion €, accounting for 27.5 percent of the overall EU budget from 2014-2020 and 40.3 billion € annually (EC, 2011a: 15). The second pillar supports rural development through the European Agricultural Fund for Rural Development (EAFRD), thus supplementing the first pillar. It holds an overall budget of 89.9 billion €, thus accounting for 8.7 percent of the overall EU budget (EC, 2011a: 15). Climate mitigation and adaptation as new challenge was explicitly mentioned in an interim reform of the 2007-2013 programming period, the ‘Health Check’ of the Common Agricultural Policy in 2008 and amended to the objective of the sustainable management of natural resources as one of the three major objectives (EC, 2009) besides viable food production and balanced territorial development. To integrate climate policy into agricultural policy with adherence to the EU SDS and the indicators for Climate Policy Integration identified above, the five criteria of climate integration and coherence, flexibility, efficiency, socio-economic development as well as participation and justice need to be fulfilled with references in a legally binding form, i.e. in the Articles of the legislative proposal proposed by the European Commission, as there are no inherent co-benefits as with renewable energy.

Policy Integration and policy coherence

Policy integration and policy coherence refers to the objective of reducing GHG emissions and adapting to the unavoidable consequences of climate change. Thus, the indicators of reference to climate strategies and measurable GHG reductions through policy measures would need to be fulfilled while avoiding incoherence with other pol-

icies. Both pillars of the proposed post-2013 Common Agricultural Policy strongly integrate climate objectives and environmental benefits via the overarching objectives of viable “food production, sustainable management of natural resources and climate action and balanced territorial development.” (EC, 2011b: 73). These objectives contribute to the overarching target of promoting resource efficiency “with a view to smart, sustainable and inclusive growth for EU agriculture and rural development in line with the Europe 2020 Strategy” (EC, 2011b: 73). The second key objective connects the key sustainability objective to sustainable manage natural resources as the central production capital of agriculture with climate mitigation and adaptation. This requires clear indicators for measurement of goal achievement within a common monitoring and evaluation framework that aims to measure the performance of the CAP, while performance is not understood as purely economic performance, but in relation to the three key objectives with agricultural income/ socio-economic considerations as first objective.

The proposal for pillar one of the CAP (EC, 2011b) integrates a greening component that earmarks of 30 percent of the direct payments for mandatory agricultural practices that are beneficial for the environment and climate action in the form of potential to enhance soil carbon content for mitigation and contributing to limiting the vulnerability of farmers. These adaptation benefits include crop diversification by increasing the resilience to agricultural lands in the case of extreme events with an important role of ecological focus areas (EC, 2011b). The rationale behind the greening component, which can be measured, evaluated and verified, is to provide farmers who receive payments to deliver public good services and to engage in environmentally supportive practices by shifting the agricultural sector significantly in a more sustainable direction (EC, 2011a: 14). Environmental and climate objectives are emphasised

in the second objective by connecting conservation of biodiversity, soil and water issues with GHGs. The third objective refers to social cohesion and economic development in terms of poverty alleviation through employment and growth in rural areas. Thus, there is a strong emphasis on the environmental component of sustainable development over economic and social components.

Pillar two equally integrates climate policy in a coherent way with sustainable development, especially through cross-compliance, conditionalities and provisions for the biodiversity programme Natura 2000 (EC, 2011c: 2-3, Articles 4,9), which could compete for land use with agricultural production (Jackson, 2011). The emphasis is on climate change as a cross-border challenge that needs to be addressed in all appropriate sectors and on the benefits of the post-2013 CAP proposal to address climate change, improve solidarity and provide subsidiarity by closely linking climate change, agriculture, forestry, food production and rural development through the sustainable management of natural resources and the imperative to align and coordinate those areas. The implementation via cross-compliance provides the link between climate policy integration and raising awareness among stakeholders to respect the basic standards of sustainable agriculture (EC, 2011a: 13-14; 2011c: 2-3).

Flexibility

To fulfil the CPI criterion of flexibility in the sense of learning from experience, using best available knowledge and especially adapting to local conditions, there need to be references to flexibility by setting targets but granting discretion in the choice of means, to subsidiarity and to basing decisions and actions on local conditions. Pillar one (EC, 2011b) sets out very specific conditions for greening that need

to be fulfilled before member states may grant the payments, but explicitly limits their applicability to their relevance for farmers and eligible areas:

- (a) to have three different crops on their arable land where the arable land of the farmer covers more than 3 hectares and is not entirely used for grass production (sown or natural), entirely left fallow or entirely cultivated with crops under water for a significant part of the year;
- (b) to maintain existing permanent grassland on their holding; and
- (c) to have ecological focus area on their agricultural area (EC, 2011b: Article 29.1)

As these components, where applicable, are mandatory for farmers if they want to receive funds from the CAP, the flexibility is relatively low. The discretion for farmers in how to achieve the targets and determine what components are relevant to them is limited through the financial imperative to comply and rather mirrors a command-and-control style of regulation.

Pillar two safeguards minimum requirements of climate policy integration by providing farmers with necessary knowledge to implement the CAP. The advisory system provides support to farmers through advisors with special focus on sustainability criteria such as climate change mitigation/ adaptation and environmental aspects like the sustainable management of natural resources and ecosystems (EC, 2011c: Article 16). Thereby it establishes a mechanism for knowledge transfer, training and education for farmers on environmental and climate change aspects to raise awareness and improve understanding. This ultimately aims at creating the willingness among farmers for cooperation and the motivation to take the initiative and think of flexible ways of sustainable agriculture within the framework conditions set by the CAP (EC, 2011c). The rural development fund carries inherent flexibility for local conditions and subsidiarity as it is tailored towards funding regions and development in specific rural areas with a high level of subsidiarity. To maximize synergies, the EAFRD is linked to other relevant funds through Partnership Contracts between the EC and the

individual Member States (EC, 2011a: 5) within the overall objectives of smart, sustainable and inclusive growth the Europe 2020 strategy (EC, 2011a: 2).

Efficiency

The efficiency criterion is especially important for the CAP as it refers to the efficient management of natural resources to maintain the integrity of ecosystems and minimizing input for achieving a set output in production. Pillar I refers to the

objectives of the sustainable management of natural resources and climate action are prioritised through the restoration, preservation and enhancement of ecosystems as well as the promotion of resource efficiency, low carbon and climate resilient agriculture. Rural development will allow to significantly contribute towards the completion of the implementation of both the Natura 2000 and Water Framework Directives and to the achievement of the EU's 2020 biodiversity strategy. (EC, 2011b: 3)

Thus, biodiversity, the efficient sustainable management of ecosystems, Natura 2000 and the Water Framework Directives are direct references to efficiency in the use of natural resources, the basis for food production in agriculture (EC, 2011b). However, the proposal for pillar one of the CAP only refers to these efficiency indicators in the explanatory memorandum and the Recitals, not in the actual articles what indicates a weak achievement on this criterion for CPI.

Pillar two meets the efficiency criterion with the efficient use and management of critical natural capital better. It refers to the necessity to change market structures to internalize environmental externalities through policies. The strategy is to support farmers in using environmentally and climate favourable land management practises to alleviate disadvantages through not properly reflected market prices, thus making

sustainable farming competitive. This is the opposite approach of making polluters pay by providing benefits for non-polluters in a socially acceptable manner (EU, 2009: 2). It furthermore sets up compensation schemes for farmers as climate adaptation measure given the increased climate risks based on risk assessment tools. This is being integrated into existing compensation schemes and provisions and providing incentives for re- and afforestation measures following catastrophic events such as wild fires, which may be connected to unavoidable consequences of climate change (EC, 2011c: Recital 35 and 37; Article 25 and Annex IV.4). Pillar two explicitly promotes efficiency in resource use and especially focuses on an increase in the efficiency in water and energy use as well as the provision of renewable resources (EC, 2011c: Article 5). The proposal for pillar two explicitly mentions the polluter pays principle and uses a ‘stick-and-carrot’ approach by defining climate and environmental minimum requirements in the form of 25 percent of payments having to go towards measures with direct co-benefits for climate mitigation, adaptation and land management. Simultaneously there are provisions to compensate farmers for higher costs with very specific guidelines, payment schemes and conditionalities for rewards for additional efforts by farmers. The stick and carrot approach makes stronger climate policy integration and environmental protection feasible and desirable from an economic point of view by increasing their economic competitiveness and balancing disadvantages (EC, 2011c: Recital 28; Articles 29, 35).

Socio-economic development

The criterion of socio-economic development refers to achieving GDP growth per capita that is decoupled from environmental pollution, taking environmental costs into account and socially inclusive. Relevant indicators are therefore references to low

carbon economic development or the objective to decouple economic growth from environmental degradation, investment in clean technologies or production methods without irreversible negative effects on natural resources as well as enabling all parts of society to profit from economic by participating through consumption or as small/ large scale producers. Pillar I integrates the CPI criterion of socio-economic development through provisions for organic farming and small-scale producers, i.e. farmers. Organic farming is being encouraged with economic incentives for its environmental and climate benefits, while non-organic farming is being discouraged with penalties for non-green farming that ignores the greening components (EC, 2011b: Recital 38; Article 29). Thereby pillar one sets economic incentives that could result in decoupling through promoting economic growth in the organic farming sector that is more environmentally and climate friendly, where polluters not only have to pay, but are forced to comply through penalties. Additionally, pillar one enables small scale producers to profit from greening the CAP and avoids extra burdens for them by simplification and aiming to reduce existing administrative and economic burdens (EC, 2011b: Article 1, 47).

Pillar two provides more references to the CPI criterion of socio-economic development and explicitly supports “the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors” (EC, 2011c: Article 5). The Commission emphasises co-benefits of social inclusion and rural economic development through infrastructure, jobs and basic services to achieve aspects of social sustainability through economic competitiveness and attractive living environment. It also integrates renewable energy infrastructure into financial support through the CAP (EC, 2011c: Recital 24). Maintaining the economic competitiveness of farmers and support instruments have been central to the CAP also in previous programming peri-

ods. Existing instruments such as support for cooperative development of new products, processes and technologies in forestry, food and agriculture sectors are being altered and adapted to better integrate climate concerns and strengthened by encouraging partnership programmes, requirements for national legislation and extension of financial support in cases of justified collective environmental and climate action (EC, 2011c: Recital 35 and Articles 61, 66). There is an explicit emphasis on combining economic growth focused on the long term with climate objectives through appropriate investments and support schemes (EC, 2011c: Article 26). The European Commission proposes that member states delegate authority to the Commission to facilitate and ensure climate policy integration across sectors, regions and member states. This requires monitoring and controls besides incentives, recognition of forestry, agriculture and related sectors as especially central to achieving climate objectives and importance to comply with environmental sustainability. Increasing the power of the EC as central ‘watchdog’ of climate and environmental policy integration into agriculture reduces the risk of actors engaging in ‘greenwash’ or window-dressing, as the European Commission compares and evaluates reports and evidence of implementation. If minimum requirements are not met, improvements should be demandable, as well as the possibility to withhold payments under CAP if conditions of greening are not fulfilled (EC, 2011c: Recitals 22, 25, 29).

Justice and participation

The Climate Policy Integration criterion of justice and participation is linked to environmental and social aspects of sustainable development and refers to the involvement of stakeholders through participatory mechanisms as well as inter- and intragenerational equity. Indicators for measurement are access to public consultations, references to stakeholders impacted by the policy and access to complaint procedures.

The EU carried out public consultations in the formative phase of formulating and drafting the CAP as EU standard procedure, where especially farmers associations and other stakeholders were involved, but does not provide for direct complaints or redress mechanisms if farmers disagree with measures. Here the command and control character of the legislation becomes obvious (Cole and Grossman, 1999; Sinclair, 1997). Pillar one introduces measures in line with prior CAP versions to prevent fraud and irregularities through payments that were received by farmers in unjustified manner by encouraging member states and concerned agencies with incentives to act quickly (EC, 2011b: Financial Statement 2.3), while pillar two has no direct references to justice or participation besides the involvement of stakeholders in the public consultations and the impact assessment. However, the final indicator of access to justice does not require explicit mentioning in directives as complaints and redress is the primary concern of the European Court of Justice, which considers direct actions brought by individuals, organizations or companies against EU decisions or actions (Craig, 2010).

Comparison in meeting sustainable development criteria

Overall, both the Renewable Energy Directive as example of type 1 CPI and the proposal for the 2014-2020 Common Agricultural Policy as example of the new mainstreaming approach to climate policy (CPI type 2) brought forward by the European Commission for policies that do not automatically have co-benefits for climate mitigation or adaptation meet the criteria for genuine climate policy integration and cannot be regarded as ‘climate-wash’ or weak climate policy integration measures.

Flexibility and efficiency are limited in the Common Agricultural Policy at some points or sustainability provisions are only made in the recitals.

The reasons for these results are the strong command-and-control style provisions that demand certain action that is beneficial for climate mitigation or maintaining ecosystems from farmers with limited flexibility in how they achieve the targets. The efficiency in the first pillar is in fact an area that could still be improved and better integrated into the articles through provisions for how biodiversity, the efficient sustainable management of ecosystems, Natura 2000 and the Water Framework Directives can be integrated to achieve the objectives lined out in the recitals. The participation and justice criteria are not well met as the CAP proposal lacks provision for participation and access to complaint procedures or redress mechanisms for affected farmers.

Here again, the strong regulatory command-and-control character (Cole and Grossman, 1999; Sinclair, 1997) of the CAP proposal becomes clear. The CAP does not foresee special mechanisms for exemptions or participation in the implementation of the climate and environmental provisions. The rationale behind this lack of participatory and justice instruments is that the environmental and climate provisions are inherently beneficial for future generations as they help to maintain ecosystems and the mitigation of and adaptation to climate change from an inter- and intragenerational justice perspective. The proposal does expect farmers to comply with the greening rules if they want to receive European taxpayer's money for their services and to provide public goods for society (European Official 1, 2011). Consequently, the justice provisions are limited for farmers, who have the option to bring their case before the European Court of Justice via direct actions (Craig, 2010), and indirectly benefit the

public and future generations who benefits from the greening components and strong integration of climate considerations into the CAP.

Overall, the European Commission’s CAP proposal and the EU’s RED decision portray the EU as a frontrunner in regard to innovative and progressive climate policies. These two case studies can be understood as best-practise examples of successful Climate Policy Integration and serve as benchmark for future climate policy integration in the EU and elsewhere while room for improvements exists. Table 3 summarises the results from the two previous sections.

CPI criteria	Renewable Energy Directive 2009	CAP proposal Pillar I (direct payments)	CAP proposal Pillar II (regional development fund)
Policy integration and policy coherence	Inherent	Yes	Yes
Flexibility	Limited, command and control	Limited	Yes
Efficiency	Yes	Limited (only recitals)	Yes (Command and Control approach)
Socio-economic development	Yes, but only in recitals	Yes	Yes
Participation and Justice	Yes, explicit mention of Aarhus convention	Limited; Command and control approach	No (ECJ provisions)

Table 3. Overview on how European climate policies/ EC proposals for mainstreaming meet sustainable development criteria. Compiled by author.

Especially in a time of financial and economic crisis mainstreaming climate policy into other policy areas can, if the criteria for CPI are fulfilled, be an effective approach to meet multiple needs and achieve different purposes with limited financial resources. This can only be successful if the legislation commands minimum requirements, makes provisions for controlling their achievement as well as provides

incentives and rewards for overachieving the greening and climate components. Creating synergies in several policy areas advances the implementation of the overarching goal of achieving sustainable development and efficiently uses public funds by simultaneously serving environmental, economic and social purposes. This provides policy implications for other countries by illustrating the synergies of the mainstreaming approach for climate action and sustainable, low carbon economic development.

Bibliography

Adger N. and A. Jordan (2009). *Governing Sustainability*. Cambridge University Press, Cambridge.

Ahmad, I. (2009). "Climate Policy Integration: Towards Operationalization". DESA Working Paper 73, ST/ESA/2009/DWP/73.

Beck, S., Kuhlicke, C. and C. Görg (2009). "Climate Policy Integration, Coherence, and Governance in Germany. PEER climate Change Initiative – Project 2". Helmholtz Zentrum für Umweltforschung. UFZ-Bericht 1/2009.

Cole, D. and P. Grossman (1999). "When is Command-and-Control Efficient - Institutions, Technology, and the Comparative Efficiency of Alternative Regulatory Regimes for Environmental Protection". *Wilson Law Review*, 1999, (5): 887-939.

Craig, P. (2010). *The Lisbon Treaty. Law, Politics, and Treaty Reform*. Oxford, Oxford University Press.

Dowlatabadi, H. (2007). "On integration of policies for climate and global change". *Mitig Adapt Strat Glob Change* 12: 651-663.

Dupont, C. (2010). "Political Commitment to Climate Policy Integration at EU Level: The Case of Biodiversity Policy" (October 13, 2010). *Edinburgh Europa Paper Series* 2010/05. Retrieved on 4.5.2011 from <http://ssrn.com/abstract=1691610>.

EURLex (2012). *Joint Practical Guide for persons involved in the drafting of legislation within the Community Institutions*. Guide of the European Parliament, The Council and the Commission. Retrieved from <http://eur-lex.europa.eu/en/techleg/10.htm>.

European Commission (2005). Draft Declaration on Guiding Principles for Sustainable Development. COM(2005) 218 final. 25.5.3005. Brussels, European Commission.

European Commission (2008). 20-20 by 2020. Europe's Climate Change Opportunity. Brussels, Belgium (COM(2008) 30 final), Brussels.

European Commission (2011a). A Budget for Europe 2020. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. COM(2011) 500 final. Brussels.

European Commission (2011b). Proposal for a Regulation of the European Parliament and of the Council establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy. COM(2011) 625 final. 19.10.2011, Brussels.

European Commission (2011c). Proposal for a Regulation of the European Parliament and of the Council on support for rural development by the European Agricultural Fund for Rural Development (EAFRD). COM(2011) 627 final/2. 19.10.2011, Brussels.

European Commission (2011d). A Roadmap for moving to a competitive low carbon economy in 2050. COM(2011) 112 final. 8.3.2011, Brussels.

European Commission (2012a). Climate Policy Mainstreaming. Retrieved from http://ec.europa.eu/clima/policies/brief/mainstreaming/index_en.htm.

European Commission (2012b). Europe's growth strategy. Retrieved from http://ec.europa.eu/europe2020/index_en.htm.

European Commission (2012c). Elements for a Common Strategic Framework 2014 to 2020. Commission Staff Working Document. SWD(2012) 61 final, 14.3.2012, Brussels.

European Council (2001). Presidency Conclusions. Göteborg European Council, 15/16.6.2001. SN 200/1/01/REV 1. Brussels, European Council.

European Council (2006). Renewed Sustainable Development Strategy. Council of the European Union 10917/06. 26.6.2006. Brussels.

European Council (2007). Presidency Conclusions 7/8 March 2007. Europe – Succeeding Together. 7224/07 CONCL1. Brussels.

European Union (2001). Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market. L283/33. Journal of the European Communities, Brussels.

European Union (2003a). Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003 on the promotion of the use of biofuels or other renewable fuels for transport. L123/43. Journal of the European Communities, Brussels.

European Union (2009). Directive 2009/28/EC of the European Parliament and the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC. L140/16. Journal of the European Communities, Brussels.

Eurostat (2009). Sustainable Development in the European Union. 2009 monitoring report of the EU sustainable development strategy. Luxemburg, Luxemburg.

Feindt, P. (2010). "Policy-learning and Environmental Policy Integration in the Common Agricultural Policy, 1973-2003". *Public Administration* 88(2): 296-314.

Fouquet, D. (2012). "Policy instruments for renewable energy – From a European perspective". *Renewable Energy* (in press): 1-4.

Henstra, D., and McBean, G. (2009). "Climate Change Adaptation and Extreme Weather: Designing Adaptation Policy - Background Report." Vancouver, Simon Fraser University.

Hertin, J. and F. Berkhout (2003). "Analysing Institutional Strategies for Environmental Policy Integration: The Case of EU Enterprise Policy." *Journal of Environmental Policy and Planning* 5(1): 39-56.

Hooghe, L. and G. Marks (2004). 2003. "Unraveling the Central State. But How? Types of Multi-level Governance." *American Political Science Review* 97(2): 233-243.

Howden, S., Soussana, J., Tubiello, F., Chhetri, N., Dunlop, M. and Meinke, H. (2007). "Adapting agriculture to climate change". *PNAS* 104(50): 19691-19696.

Jordan, A. and A. Lenschow. (2000). "'Greening' the European Union: What can be learned from the 'leaders' of EU Environmental Policy?" *European Environment* 10(1): 109-120.

Jordan, A. and A. Lenschow (2008). *Innovation in Environmental Policy? Integrating the Environment for Sustainability*. Cheltenham, Edward Elgar.

Jordan, A. and A. Lenschow (2010). "Policy Paper. Environmental Policy Integration: a State of the Art Review". *Environmental Policy and Governance* 20(1): 147-158.

Knudsen, J. (2010). "Integration of Environmental Concerns in a Trans-Atlantic Perspective: The Case of Renewable Electricity." *Review of Policy Research* 27(2): 127-144.

Kok, M. and H. de Coninck (2007). "Widening the scope of policies to address climate change: directions for mainstreaming". *Environmental Science and Policy* 10: 587-599.

Kok, M., Metz, B. and J. Verhagen (2008). "Integrated development and climate policies: National and international benefit". *Climate Policy* 8(2): 103-118.

Lafferty, W. and Hovden, E. (2003). "Environmental Policy Integration: Towards an Analytical Framework". *Environmental Politics* 12(3): 1-22.

Lenschow A. (2002). *Environmental Policy Integration: Greening Sectoral Policies in Europe*. Earthscan, London.

Lyon, T., and J. Maxwell (2004a). "Astroturf: Interest Group Lobbying and Corporate Strategy," *Journal of Economics and Management Strategy* 13: 561-597.

Lyon, T., J. Maxwell (2004b). *Corporate Environmentalism and Public Policy*. Cambridge University Press, Cambridge.

Mickwitz, P., Aix, F., Beck, S., Carss, D., Ferrand, N., Görg, C., Jensen, A., Kivimaa, P., Kuhlicke, C., Kuindersma, W., Máñez, M., Melanen, M., Monni, S., Branth Pedersen A., Reinert, H. and S. van Bommel. (2009a). "Climate Policy Integration, Coherence and Governance, PEER Report." Helsinki, Partnership for European Environmental Research.

Mickwitz, P., Beck, S., Jensen, A., Branth Pedersen, A., Aix, F., Carss, D., Ferrand, N., Görg, C., Kivimaa, P., Kuhlicke, C., Kuindersma, W., Máñez, M., Melanen, M., Monni, S., Reinert, H. and S. van Bommel. (2009b). "Climate Policy Integration as a Necessity for an Efficient Climate Policy". Paper Presented at the 9th European Conference on the Human Dimensions of Global Environmental Change, Volendam, 2- 4 December.

Moldan, B., Janouskova, S. and T. Hak (2012). "How to understand and measure environmental sustainability: Indicators and targets". *Ecological Indicators* 17(1): 4-13.

Nilsson, M., Persson, Å., (2003). "Framework for analysing environmental policy integration." *Environmental Policy and Planning C: Government and Policy* 5: 333–359.

Nilsson, M. and L. Nilsson (2005). "Towards climate policy integration in the EU: evolving dilemmas and opportunities". *Climate Policy* 5(3): 363-376.

Nilsson, M. and K. Eckerberg (2007). *Environmental Policy Integration in Practice. Shaping Institutions for Learning*. London, Earthscan.

OECD (2001). *Environmental Indicators. Towards Sustainable Development*. Organization for Economic Co-operation and Development, Paris.

Patel, M., Bartle, I., Bastioli, C., Doutlik, K., Ehrenberg, J., Johansson, D., Kab, H., Klumpers, J., Luther, R and D. Wittmeyer (2002). "Towards the integration of renewable raw materials in EU climate policy. Part 1". *Agro Food Industry Hi-Tech* 13(6): 28-31

Patel, M., Bartle, I., Bastioli, C., Doutlik, K., Ehrenberg, J., Johansson, D., Kab, H., Klumpers, J., Luther, R and D. Wittmeyer (2003). "Towards the integration of renew-

able raw materials in EU climate policy. Part 2". *Agro Food Industry Hi-Tech* 14(1): 52-56.

Putnam, R.D. (1988). "Diplomacy and domestic politics: the logic of two-level games." *International Organization*, 42: 427-460.

Rietig, K. (forthcoming 2012a). "What is Climate Policy Integration? Conceptualisation and emergence in policy making". Grantham Research Institute for the Environment and Climate Change Working Paper, London School of Economics and Political Science, London.

Rietig, K. (2012b). "Making Green Growth work for Developing Countries: How can Climate Finance create Co-benefits for Climate Policy and Sustainable Economic Development?". Conference Paper for ISEE 2012, Rio de Janeiro, Brazil.

Rowell, A. (2002). *The Spread of Greenwash* Andy Rowell. In: Lubbers, Eveline: *Battling Big Business: Countering greenwash, infiltration and other forms of corporate bullying*. Green Books, Devon, 19-26.

Schreurs, M. and Tiberghien, Y. (2007). "Multi-Level Reinforcement: Explaining European Leadership in Climate Change Mitigation". *Global Environmental Politics* 7(4): 19-46.

Shields, D., Solar, S. and W. Martin (2002). "The Role of Values and Objectives in Communicating Indicators of Sustainability". *Ecological Indicators* 2: 149-160.

Sinclair, D. (1997). "Self-Regulation versus Command and Control? Beyond False Dichotomies". *Law and Policy* 19(4): 529-559.

United Nations Commission on Sustainable Development (UNCSD) (1987). *Our Common Future*. A/43/437. New York, United Nations. Retrieved from <http://www.un-documents.net/ocf-02.htm>.

United Nations Commission on Sustainable Development (UNCSD) (1996). *Indicators of Sustainable Development Framework and Methodologies*. New York, United Nations.

United Nations Framework Convention on Climate Change (UNFCCC) (1998). *Kyoto Protocol to the United Nations Framework Convention on Climate Change*. United Nations, New York.

Van Bommel, S. and Kuindersma, W. (2008). "Policy Integration, Coherence and Governance in Dutch Climate Policy: A Multi-Level Analysis of Mitigation and Adaptation Policy." *Alterra rapport 1799*. Wageningen, Alterra.

Weale, A. (1992). *The New Politics of Pollution*. Manchester University Press, Manchester.

Widmer, A. (2010). "Coping with Climate Change: Integrating Adaptation into Forestry in Switzerland". Institute for Environmental Decisions ETH Zürich, Paper for

the Conference on the Human Dimensions of Global Environmental Change, Berlin
October 2010.

Wilkinson D. (2007). "EPI at EU Level: a State of the Art Report". EPIGOV. Ecologic, Berlin.

Yamin, F. (2005). "The European Union and future climate policy: Is mainstreaming adaptation a distraction or part of the solution?" *Climate Policy* 5(3): 349-361.