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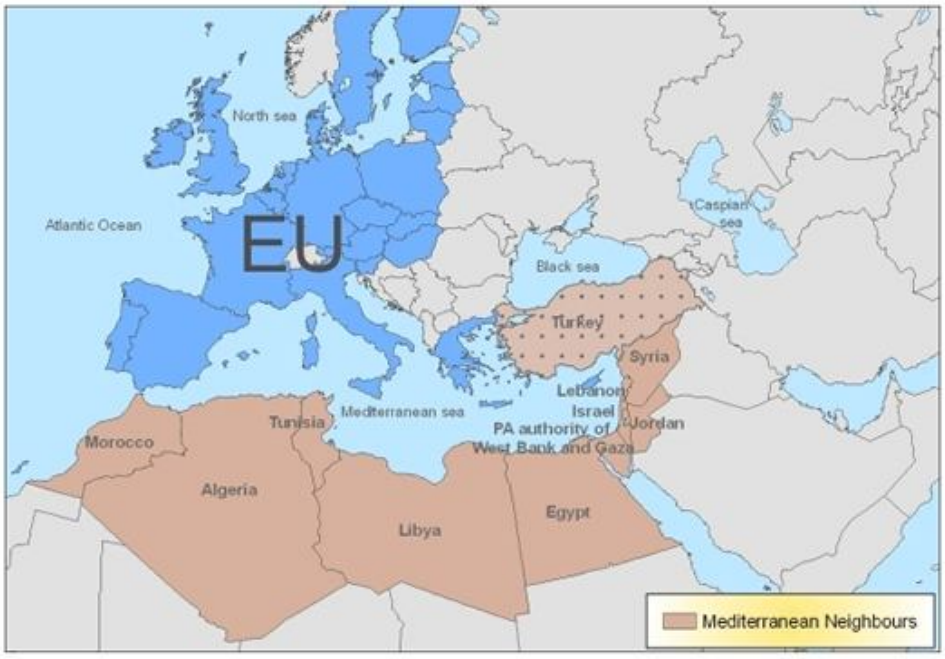
CROSS-NATIONAL POLICY CONVERGENCE IN THE ENVIRONMENTAL FIELD: THE EU AND ITS MEDITERRANEAN PARTNERSHIP COUNTRIES



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ABSTRACT
Previous research has discovered that the European Union has been able to influence the environmental policies of its own member states and some types of third countries through cross-national policy convergence. Especially the Envipolcon project has put considerable focus on the study of this topic and the causal mechanisms behind it. However, the question that does stay unanswered is whether and if yes, how the EU can have an impact on environmental policies of neighbouring countries that have not applied for and do not show concrete interest in membership. This study adds to earlier research by concentrating on the question whether previous findings still hold true for a different case: the Mediterranean partnership countries Tunisia, Morocco, Syria and Jordan. As such the goal of this study is to analyse whether the found results of earlier research are the same for this country group, whether the same transfer mechanisms are the causes, and what other factors might influence environmental policy convergence. Therefore, this study concentrates on the main question how we can explain cross-national policy convergence in the environmental field between the EU and its Mediterranean partnership countries. From a theoretical perspective this study concentrates on the explanatory power of international harmonization, transnational communication and regulatory competition and adds domestic factors as control variables. By doing a comparative case study it is shown why these three independent variables might not explain the high degree of environmental policy convergence between the EU and its Mediterranean partnership countries on five different environmental policy items best.

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1 INTRODUCTION

Environmental policies have been developing strongly during the last years and nowadays claim a bigger share on national and international policy agendas then ever before. Governments have come to understand the threatening nature of environmental problems and of a changing climate. Therefore, environmental policies have become every day politics on local, national and international level. Environment has become a present topic not only for governments but also for citizens all over the world.

It is necessary to do research on this topic as every person is affected by the functioning of the surrounding environment and the climate. Accordingly, society is dependent on its government to set-up, evaluate and implement environmental policies. While this happens to a large extent on national level where the policies always need to be implemented and controlled for, the international level has also proven itself to be an important scene for international measures to combat climate change and environmental problems.

The interesting aspect when analysing the development of environmental policies on European Union (EU) level is the observed race to the top. Normally, one might expect a race to the bottom in policy fields where different national policy makers come together. One could argue that the different actors tend to agree on the level of the least common denominator. However, in reality, the analysis of environmental policies has shown the opposite. The most common mentioned reasons for this are the low costs for complying with environmental standards and the high political salience of environmental issues (Heichel, Pape & Sommerer, 2006). Previous research has discovered that the EU has been able to influence the environmental policies of its own member states and some types of third countries. This includes that the EU does not only form the environmental policies of its member states, but also of official and potential candidate countries.

When trying to understand and explain policy transfer between the EU and candidate countries a common model of external governance studied is governance by political conditionality, a model extensively studied by many academics. Studies of the external dimension of governance are about the transfer of given EU rules and their adoption by non-EU countries. To answer the key question how rules are transferred the concept of conditionality is used. Conditionality is said to lead to policy transfer by functioning as a bargaining strategy of reinforcement by reward. However, next to this mechanism of making countries comply with EU conditions due to external incentives, also other mechanisms might lead to policy transfer when non-EU countries consider EU policies as effective solutions (lesson-drawing model) or are persuaded of the appropriateness of EU policies (social learning model). (Schimmelfennig & Sedelmeier, 2004) While this model of conditionality has been proven to be useful to explain policy transfer to candidate countries it often did show that membership is the highest reward the EU can offer. So how can we then explain policy transfer with non-candidate countries which show no concrete interest in becoming member of the EU?

Next to this approach of conditionality, to understand how the EU manages to transfer its policy ideas and current policies to other nations several researchers have concentrated on different mechanisms of transnational policy transfer leading to policy convergence. Especially the Envipolcon ('Environmental governance in Europe: the impact of international institutions and trade on policy convergence') project has done extensive work on this subject in the environmental field with several researchers working on what the overall patterns and main causes of convergence actually are and "how convergence actually works in practice, who the key players are and which mechanisms apply under which conditions" (Knill, 2006). However, also this project concentrated mainly on environmental policy convergence between European countries.

The analyses across different countries constellations, but always in somehow official relation to the European Union, have all shown similar results for environmental policy-convergence. Firstly, policy convergence across nations concerning environmental policies is existent. Secondly, we have to differentiate between the types of policy innovations adopted as the adoption is not similarly prominent for all. Thirdly, analysing the different types of convergence mechanisms international harmonization is found to contribute most to the explanation of convergence, transnational communication on environmental policy convergence is almost as strong, but explanatory potential of the mechanism of regulatory competition is comparably low. Finally, also domestic factors contribute to the explanation of environmental policy convergence. (Busch & Jörgens, 2005; Busch & Jörgens, 2005b; Holzinger & Knill & Sommerer, 2008; Knill, 2006; Knill & Tosun, 2009)

The question that stays unanswered, however, is whether and if yes, how the EU can have an impact on environmental policies of neighbouring countries that have not applied for and do not show concrete interest in membership. In this study this research deficit is addressed. This study adds to earlier findings by concentrating on the question whether the findings of the Envipolcon project and the tested convergence mechanisms still hold true for a different case. The Mediterranean partnership countries of the EU have not been considered under the above mentioned project or other research so far. These countries establish a new case as they are not expected to apply for membership in the EU, but they do have extensive partnership agreements and are joined with the European countries in the Union for the Mediterranean. This study analyses whether the found results so far also hold over this country group and what other factors might influence environmental policy convergence. As such, this study concentrates on the question how we can explain cross-national policy convergence in the environmental field between the EU and its Mediterranean partnership countries.

The sub-research questions which guide this study are:

- Can we actually observe policy convergence?
- What scope (variation across policy dimensions, policy types and countries) does policy convergence have in the environmental policy field?
- What forces cause policy convergence?
- How do the findings of the study influence the idea of cross-national environmental governance between Europe and non-European countries?

Throughout the study the central variables are the following: the dependent variable of the study is policy convergence in the four different countries on five environmental policy items and the independent variables are the three mechanisms of policy convergence which are international harmonization, transnational communication and regulatory competition. Additionally, some control variables are used which are all domestic factors.

Policy convergence is a very broad concept that needs to be defined carefully. In this study policy convergence is defined according to the definition of Professor Christoph Knill. According to Knill policy convergence is defined "as any increase in the similarity between one or more characteristics of a certain policy (e.g. policy objectives, policy instruments, policy settings) across a given set of political jurisdictions (supranational institutions, states, regions, local authorities) over a given period of time. Policy convergence thus describes the end result of a process of policy change over time towards some common point, regardless of the causal processes" (Knill, 2005, p. 768).

In empirical terms this study tries to answer how we can explain the cross-national policy convergence in environmental policies between the EU and its Mediterranean partnership countries. With the time frame being 1970 until 2010 five different items of environmental policies are analysed. Choosing environmental policy plans, environmental ministries, quotas for the promotion of renewable electricity, constitutional article on environmental sustainability and eco-labels as the five items to concentrate on in this study, the study aims at covering a broad field of different policy items. The five different items are analysed in four different countries. By doing a comparative case study this study analyses several independent variables which are theorized to cause environmental policy convergence in Tunisia, Morocco, Jordan and Syria.

In theoretical terms this study shows how the explanatory power of convergence mechanisms holds true in a new case. While these independent variables are often mentioned to be the causes for cross-national policy convergence in the environmental field this study shows whether this is still the case with countries that show no interest in EU membership but yet have a close relation to the EU. By adding several domestic factors as control variables the study constitutes the idea that policy convergence might also be found due to domestic factors and independently from any of the convergence mechanisms caused by international factors. The findings of the study show how the external convergence mechanisms can be used to explain cross-national environmental policy convergence and what role the domestic factors might play. Additionally, the results can give an indication whether differences are observable between the different types of environmental policy items and a conclusion is made on the effect of the results on real life politics.

This report is structured the following way. First, the report starts of by introducing the theoretical background and perspective of this study. Second, a methodological chapter lays out the conceptualization and operationalization of the dependent and independent variables. Third, a descriptive analysis delivers first results on the data and patterns of the dependent variables and independent variables. Fourth, an explanatory analysis is added to make valid conclusions on the

explanatory power of the three external convergence mechanisms. Finally, a general conclusion sums up the result of this research and makes some recommendations on what influence these results may have and how further research could be useful.

2 BACKGROUND TO CONVERGENCE THEORY

Literature throughout the years gives a possibility to track the development of convergence theory and helps to understand how convergence has been defined for this research. While in this paper the pure concentration lies on the term of environmental convergence and how convergence can be explained in the environmental field it is important to keep in mind that this is a theory which has been broadly used in different kinds of policy fields and different kinds of approaches. As the operationalization shows later this study does not use specific formulas which would justify a choice of specific convergence concept. The focus here is on how international factors can explain the convergence between environmental policies of the European Union and the selected Mediterranean countries. On a qualitative level this study tries to show how earlier results on cross-national policy convergence in the environmental field might still hold over new cases with very different conditions.

The broadest definition that could be used for convergence is probably the idea that the similarity between countries in terms of policy goals, content, instruments, outcomes and/or styles increases. In short, we speak of convergence between countries if they become more similar over time in terms of their policies. However, this study makes this definition more precise to adapt it to the environmental field and the concrete interests of this study. Due to this the definition of Knill (2005) has been chosen. More about the operationalization of environmental policy convergence as the dependent variable of this study can be found in the next section.

Before continuing it is useful to consider the role of globalization and internationalization which makes us see that national actors are no longer independent actors but rather interrelated on an international level. Throughout the process of internationalization and globalization countries have been losing there independence in policy making as they take policy decisions of others into consideration. For the growth in policy transfer across nations several reasons can be found. This research starts from the assumption that policy changes on national level cannot be explained sufficiently when only considering the domestic level. Processes on international level, the actors and organizations need to be included as domestic policies are no longer independent but rather interdependent. Additionally, next to including international sources research needs to include several mechanisms which might lead to cross-national policy convergence. Just some of the reasons might be that no national economy is isolated from global economic pressures, we have been experiencing a rapid growth in communication, and international organizations are increasingly advocating and sometimes enforcing similar policies. Summed up, these developments mean that countries which are exposed to similar pressures tend to look to different countries for knowledge, ideas and solutions. (Dolowitz & Marsh, 2000)

In the literature, empirical evidence shows that cross-national policy convergence in the environmental field can be found and presents an ambitious movement with ambitious goals and already some good achievements due to high national and international environmental standards. While environmental policy convergence has been proven across industrialized and Central and Eastern European countries the global spread of environmental innovations shows partly different diffusion patterns. (Busch & Jörgens, 2005) However, also when considering the spread worldwide some quickly spreading innovations can be found which show high degrees of convergence. Whether the selected countries of this research belong to this group will be shown. As data supports this theory of a race to the top and the international spread of environmental policy innovations (Busch & Jörgens, 2005) and this development has empirically been proven, the next step to ask is what factors influenced this development. On this point the main focus of this study is put.

3 THEORY AND HYPOTHESES

3.1 Factors that cause convergence: International factors

International factors seem to be the mediating factors when trying to explain cross-national policy convergence. The idea behind this is that countries are interlinked through several factors. The international factors functioning as convergence mechanisms fill in the missing link in a causal chain.

While structural change in form of economic globalization and political internationalization, and also modernizing forces try to explain cross-national policy convergence empirical results show that these are not enough as they do not necessarily result in convergence. While they may play a role as driving forces they do not explain how these pressures are actually causing convergence. (Busch & Jörgens, 2006) To compensate for this missing link international factors come to play an important function by mediating and setting up the causal link. While in theory there are numerous different types of mechanisms that could fill in this causal link, this study focuses on three mechanisms which have shown to be most effective and being representative for different classes of convergence mechanisms. (Busch & Jörgens, 2006)

To start off with we find that countries join together in international governing organizations and international nongovernmental organizations. Some international relations scholars have pointed out that international regimes can have an impact on the behaviour of nation states, although this notion is highly debated within the discipline. With countries joining international institutions they have the possibility to communicate on common matter and exchange ideas and possible solutions to environmental problems in international networks. Additionally, international institutions might have power through international law which can lead to and enforce convergence through harmonizing national environmental policies. With countries becoming member in one or several of these organizations the spread of ideas, policies and programs around the world is pushed. National policy makers are being influenced directly or indirectly due to a mix of voluntary and coercive elements. (Dolowitz & Marsh, 2000) While the mechanism leading to convergence through communication is referred to as transnational communication here, the mechanism causing convergence through obligatory forces will be called international harmonization.

Secondly, international factors might also play a role by leading to economic competition. While increasing economic integration leads to competition it leads at the same time to an adjustment of policies. (Holzinger, Knill & Sommerer, 2008) The third mechanism which arises through this factor will be referred to as regulatory competition.

Finally, it might be argued that the international context might also lead to convergence through imposition. The causal factors here would be unilateral or multilateral conditionality. This includes an asymmetry between the different actors involved and makes it possible that one actor imposes its ideas of environmental policies on the other. In this case the will to adopt a certain policy is rather constraint and is rather caused due to no choice. The adapting nation has nearly no possibility to refuse. (Busch & Jörgens, 2005; Schimmelfennig & Sedelmeier, 2004; Conconi, 2001) Consequently, one would argue the higher the political and economical asymmetry between two countries, the more likely it is that their environmental policies will converge. However, even though this is often mentioned in research as a causal factor besides the other three mechanisms imposition is not used in this research. Rather than considering it on its own it is included in international harmonization because earlier studies have shown that “effects of imposition are hardly relevant for the sample of policies and countries under investigation” (Envipolcon, 2006:30) and that imposition “does not play a significant role in environmental policy in Europe” (Envipolcon, 2006:23).

3.2 Hypotheses

Having mentioned the general idea of the three causal mechanisms that are analysed, this study tries to answer the question why countries’ environmental policies are moving forward together by testing different hypotheses. Every single one of these hypotheses is derived from a theoretical argument which tries to explain the upwards convergence of environmental policies.

3.2.1 Membership in international organizations

One might argue that it comes to policy convergence when several countries are members in an international organisation. International organizations can set-up negotiation grounds and enforcement mechanisms which single states are not able to. In these organizations the different nations involved can come together to negotiate international standards in environmental policies and decide on them in joint decision-making procedures. In this case also the adaptor countries are actively involved in the policy making procedure. However, once an agreement has been made the national autonomy is rather constrained and the countries are obliged to comply with the agreed standards. From this argument of common membership in international organisations we derive two very different theoretical arguments and hypotheses.

3.2.2 International harmonization

First, these internationally agreed on standards and policies can cause actual cross-national policy convergence due to their obligatory potentials. This is what we call the convergence mechanism of international harmonization. Once such an agreement has been signed and ratified the countries are expected to follow what they have signed. International organizations are better resourced and have bigger pressure instruments to ensure the implementation. (Boyle, 1991; Abbot & Snidal, 1998; Koremenos, Lipson & Snidal, 2001) This idea entails a coercive element and seems to lead to rather direct influence on national environmental policies. This way international harmonization leads to policy convergence by the deliberate modification of domestic policies which have been decided on in multilateral negotiations in international agreements (Busch & Jörgens, 2005). We normally find an institutionalized and centralized top-down procedure of decision-making in which the governments have a hand in drafting leading to cross-national standards (Busch & Jörgens, 2005b). As such, interdependencies or externalities have to exist which make governments come together in international institutions to resolve common problems (Holzinger & Knill, 2005).

The preconditions for this convergence mechanism to work is interdependencies between the nations, international rules or law that are binding and an international organization with the power to legally enforce them, and a monitoring system to control whether countries are complying with the international standards. The actual way of functioning of this mechanism can be observed when we find that legal obligation through international law leads to compliance and convergence. The scope of the convergence effect increases with the number of countries in an organization and the number of policies effected. The degree of similarity over time varies with legal specification and the extent of enforcement possibilities. The direction of convergence depends on rules, constellations and distribution of power. However, theory expects at least an upwards shift for minimum harmonization. (Holzinger & Knill, 2005)

In our case this would entail that the four countries are members in different international institutions where also the EU is present. With an increasing number of common memberships in institutions and thus an increasing obligatory potential environmental policy convergence becomes more likely.

H1 (obligatory potential): The bigger the obligatory potential (weighted by the number of common memberships in international institutions) between a Mediterranean partnership country and the EU, the more likely the environmental policies of this country will converge with the EU.

3.2.3 Transnational communication

Secondly, common membership in international institutions can also lead to environmental policy convergence due to the institutions' communicative potentials. This is what we call the mechanism of transnational communication. According to this theory policy convergence takes place because the international organizations facilitate communication and information exchange, and countries learn from each other and imitate policies which have been effective in other countries. In this case convergence does not take place due to formal or contractual obligations, but rather due to recommendations, awareness rising through the international agenda and specific expert networks. (Busch & Jörgens, 2005) This mechanism is rather voluntary and achieves convergence indirectly. This way transnational communication causes policy convergence without formal or contractual obligations, but rather by forms of communication on the international level which lead to voluntary adoption (Busch & Jörgens, 2005). This horizontal process is driven at lower level by mechanisms such as social learning, copying or mimetic emulation (Busch & Jörgens, 2005b; Dobbin, Simmons & Garret, 2007). The real decision-making procedure stays at national level and is decentralized (Busch & Jörgens, 2005b).

The preconditions for this mechanism to function are common problem pressure, the sense of legitimacy pressure, or the pure desire for conformity by a country when hearing and analyzing foreign policies. This mechanism functions by processes of social legitimacy and/or policy learning while professional knowledge leads to the transfer, adoption, or copying of a policy model. This happens under rather undemanding preconditions. While international harmonization depends on law and its obligatory potential transnational communication depends on the degree of existing policy similarity, cultural linkages, costs, compatibility of concepts, degree of specification of the model,

similarity of policy legacies. The degree of convergence increases with strong interlinkages in varying transnational networks and there is no general statement in direction. (Holzinger & Knill, 2005)

In our case this would mean that the four countries are members in different international organizations where also the EU is present. With an increasing number of common memberships in institutions and thus an increasing communicative potential environmental policy convergence becomes more likely.

H2 (communicative potential): The bigger the communicative potential (weighted by the number of common memberships in international institutions) between a Mediterranean partnership country and the EU, the more likely the environmental policies of this country will converge with the EU.

3.2.4 Regulatory competition

A second theoretical argument says environmental policy convergence can be explained due to the level of trade between countries. This leads us to a third potential convergence mechanism which we call regulatory competition. Regulatory competition, in comparison to the first two mentioned mechanisms, is not based on legal obligations or political pressure, but rather leads to policy convergence by the fact that countries adjust their policies collectively due to competitive pressures between them. The idea is, presupposing economic integration among the countries involved and globalization causing the abolition of national trade barriers and an increasing mobility of goods, governments decide to redesign their market regulations in order to restrict barriers on their global competitiveness (Holzinger & Knill, 2005).

This theoretical argument largely suits the arguments of Porter (1995) who says that environmental regulations are even necessary for innovation and for nations' economies to stay competitive. He argues that is has been wrong to assume that environment and competitiveness need to be seen as a trade-off between social benefits and private costs and that environmental regulations raise costs which reduce the market share of domestic companies on the world market. He also shows how many economic models fail because they do not include the enhancing possibilities from innovation. Porter turns away from these old definitions and assumptions and concludes that international competitiveness needs to be seen as a dynamic process based on innovation. As such, internationally competitive companies are those with the capacity to improve and innovate continually. Consequently, environmental standards can actually push innovation which than partially or fully offsets all costs arising due to compliance and this then shows how environmental regulations can actually lead to increased competitiveness over foreign firms. (Porter & van der Linde, 1995)

For this convergence mechanism of regulatory competition to be applicable there must be some extent of economical integration between the countries. With the market development of abolishing trade barriers, globalizing markets and the international mobility of goods, workers and capital countries find themselves in forms of regulatory competition. To be able to cope with the pressures of competition countries decide to mutually adjust their policies. This mechanism works through competitive pressures which lead to mutual agreements. The scope of convergence depends on economies to be market economies and the level of competitive pressure from international markets. The degree depends on the level of competitive pressures to which the country is exposed. Finally, the direction can depend on the policy item and more specifically on the distinction between process standard and product standard. (Holzinger & Knill, 2005)

This theory might be effective in our cases with the Mediterranean countries as "today, in an increasingly globalised world, the European Union remains the main partner of Mediterranean countries both in trade of goods and services. More than 50% of the region's trade is with the EU, and for some countries the EU represents the destination of more than 70% of their exports. Europe is the largest direct foreign investor (36% of total foreign direct investment) and the EU is the region's largest provider of financial assistance and funding, with almost €3 billion per year in loans and grants" (European Commission, EuropeAid & DG for External Relations, 2005). If this theory is to be true this would mean that the four countries have strong economical and trade relations with the EU and the more extensive the trade relations the more likely we should expect to see environmental policy convergence.

H3 (trade relation): The more extensive the trade relations between a Mediterranean partnership country and the EU, the more likely the environmental policies of this country will converge with the EU.

3.2.5 Domestic factors

All the factors mentioned and explained above have shown how international factors are expected to be able to influence cross-national policy convergence positively. Finally, however, it is sometimes also argued that environmental policy convergence is not taking place due to external international forces but rather due to domestic factors. This theoretical explanation claims that countries with similar domestic factors also tend to have similar problems and tend to solve problems similarly but independently. If the domestic problems show similar structures and characteristics also the solutions tend to be similar. (Lenschow, Liefferink & Veenman, 2005)

By including domestic factors in this study we control for this theory of similar policy-response. By controlling for several domestic factors it can be excluded that cross-national policy convergence takes place due to similar but independent responses to the same problem. As such the domestic variables can be considered as control variables. By adding the control variables this study aims at a more valid conclusion on the explanatory power of our three international convergence mechanisms on which this study focuses. (Envipolcon, 2006)

In general if this theory would want to explain cross-national policy convergence several factors could be considered. Just some domestic factors that can play a role are language, religion, common borders, history, economic development, pressure of environmental problems, and/or similarity of existing policies. In this analysis we use four domestic factors: GDP/capita, CO2 emissions, the environmental sustainability index, and the region and the language of a country. The GDP per capita is an indicator of the country's economical development. The assumption behind this factor is that countries with similar levels of economic development show similar responses. The CO2 emission of a country can be an indicator for the environmental problem pressures the country experiences. The environmental sustainability index gives an indication of the problem pressures but also of the already existing policy similarity. Finally, the region and first language of a country is an indication for the cultural similarity between countries which might also explain similar responses.

The idea behind this theoretical argument is that parallel problems lead to parallel responses. However, it is hard to speak of convergence in this case as it strongly depends on the definition of similar treatment. A higher degree of convergence is expected if countries share a broad number of characteristics and the direction is not predictable. (Holzinger & Knill, 2005) In our case we control for this possibility and the possible effects these domestic variables may have on policy change and convergence by choosing the sample of countries with the smallest variance on domestic variables possible.

H4 (domestic factors): The higher the similarity between a Mediterranean partnership country and the EU with regard to economic development, social emulation, problem pressure and pre-existing similarity, the more likely the environmental policies of this country will converge with the EU.

4 RESEARCH METHODOLOGY

4.1 Dependent variables measurement

The dependent variable of this study is environmental policy convergence. The operationalization is done by concentrating on selected policies which make the dependent variable measureable and for which data is gathered in a specific time period and from specific units.

4.1.1 Selection of environmental policy items

To be able to measure the dependent variable, environmental policy convergence, we need to clarify the term to understand how it can be measured. One might think that the term is easy definable as it sounds quite simple, however, the fact that the European Union has a huge range of different kind of environmental policies including all types of fields and different types of innovations makes it

difficult to address it specifically.[1] As is not possible to grasp the whole range in this study due to practical and time reasons, the research concentrates on a few concrete examples that aim at presenting the huge diversity of items possible. The environmental items that have been chosen for are national environmental plans, environmental ministries, quotas for the promotion of renewable electricity, constitutional articles on environmental sustainability and eco-labels.

These items are expected to be representative as they have very different characteristics. They have been chosen under the theoretical considerations of including items of different types, different costs of implementation, whether or not they are related to trade, and whether they are obligatory or not. While these characteristics lead to very different items, they all still share the two major criteria that they have to be of nation-wide scope and that they have to be adopted formally by governmental or parliamentary decision (Busch & Jörgens, 2006, p.117). Additionally, two criteria, worldwide degree of convergence and worldwide degree of proliferation speed, have been added as an indication for what one might expect (Busch & Jörgens, 2005).[2]

4.1.2 Criteria for adoption of items

Every single of these five items needs to fulfil certain basic characteristics according to their definition to be considered as adopted.[3]

The first item, environmental policy plan, needs to be understood in two steps. First of all, it entails the idea of what the government considers as the necessary environmental policies. Under this aspect it should be made clear what the long-term environmental commitment is and what the main objectives. The second part is the actual plan which defines how actual tasks and activities will be used to achieve the environmental policy objectives. Considering also the characteristics mentioned above, this item counts as adopted when it can be understood as a concrete governmental program which has been developed to achieve mid-and long-term environmental goals. The environmental policy plan needs to present the general idea of the plan, concrete objectives, how the objectives will be implemented and also reviewed. Busch and Jörgens (2005) have found that this innovation has a relatively high degree of convergence and a rather fast average proliferation speed.

The second item, environmental ministry, is understood as an independent political body which works to implemented regulations, decisions and laws related to the environment. Accordingly, this item counts as adopted when we find a body which addresses the whole broad range of environmental issues, works on the preparation and implementation of environmental decisions, regulations and laws, adopts environmental programs and also presents these domestic environmental issues on international level (Busch & Jörgens, 2005b). Busch and Jörgens (2005) have found that this innovation has a relatively high degree of convergence and a moderate to slow average proliferation speed.

The third item, quota for the promotion of renewable electricity, means that at least a defined minimum share of electricity has to be produced by renewables. Accordingly, this item counts as adopted when a minimum quota has been set on national level. The most commonly used approach in Europe is the use of certificates which can be purchased by providers if they do not achieve the minimum share from other providers who exceed this minimum share. This form, however, is not necessary to be accounted for as adopted as also other forms may lead to the same result. Quotas for the promotion of renewable electricity have not been included in the global study by Busch & Jörgens (2005).

The fourth item, constitutional article on environmental sustainability, can also be separated into two parts. While the first part is easy to grasp as a constitution is an official term and by this it is clear where to look for this item in every country, the second part which is environmental sustainability needs to entail a definition to make this component measureable. This study considers environmental sustainability as the focus of a law on preserving the environment not only for the generations of today but also for the future ones. Accordingly, this item counts as adopted when we find an article in a countries constitution on how environmental sustainability is to be included in national governance. Busch and Jörgens (2005) have also not included constitutional articles in their global study but they

[1] For an idea on the broad range of the EU's environmental policy fields, legislations and institutions have a look at: http://europa.eu/pol/env/index_en.htm

[2] For more details see: 8.1 Annex 1 "Selection of environmental policy items"

[3] For more details see: 8.2 Annex 2 "Criteria for adoption of certain policy items"

have found that framework laws have a relatively high degree of convergence and a moderate to slow average proliferation speed.

The fifth item, eco-label, is defined according to the type one ISO definition of voluntary environmental performance labelling. This definition says we can speak of eco-labelling when "a voluntary, multiple-criteria based, third party program that awards a license that authorizes the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based on life cycle considerations" (Global Ecolabelling Network, 1999). As such, this environmental policy item counts as adopted when the label is voluntary, based on multiple criteria, it is a third party that awards it and the focus is on a product being preferable because it is based in life cycle considerations. Busch and Jörgens (2005) have found that this innovation has a relatively low degree of convergence and also a relatively slow average proliferation speed.

All items having different characteristics adds validity to the study as it might show how they can lead to different adoption patterns and whether the causal relationship holds over different policies. All five items have only three values. The items can either be fully adopted, partly adopted or not adopted. Only if an item is fully adopted will it be used as a positive outcome. Adding the value partly adopted it is only an indication that some movements have been made to adopt this item.

4.1.3 Selection of observation period

The observation period is 1970 until 2010. This period was determined due to simple reasons. The starting point has been chosen to be 1970 as this is often considered as the starting point for environmental policies emerging on national and international policy agendas. Just one example is the UN conference on the human environment in 1972 (Knill, 2008a). Choosing 2010 as the end has pure practical reasons. In general, this approach is necessary to be able analyse the process of convergence. "Convergence and divergence is a process and the decisive reference point, besides space, is thus time. Hence, an appropriate convergence concept needs a precise time-frame that sets rigid standards for the interpretation of the findings" (Heichel, Pape & Sommerer, 2006, p.66). As convergence means the development of policy similarity over time a time-frame is inevitable.

4.1.4 The EU environmental policies

Before continuing with the selection of Mediterranean countries an EU 'standard' needs to be defined against which the environmental policies in the Mediterranean countries can be compared. By defining an EU standard on the same policies this study is also able to show whether the non-EU Mediterranean countries are actually following the EU in its race to the top, staying behind or perhaps even outrunning the EU. This point is important to be able to compare the EU on the country level. By being able to define an EU 'standard' for these items and also in all other variables using the EU position, the EU can actually be compared to countries what is normally quite difficult.

On the first environmental policy item, environmental policy plan, the EU presents this item by its environment action programmes (EAP) for the Community which have been set up with the first programme which ran from 1973-1976. Currently, the sixth EAP is in force which runs from 2002 until 2012. This policy item can be seen as adopted by the EU as it fulfils all criteria.

The second item, environmental ministry, is also present and is adopted according to the defined criteria. The Director General Environment (DG Environment) in the European Commission can be seen as an environmental ministry on European level. It fulfils all criteria except one criterion. The criterion that is not fulfilled and thus leads only to a limited presence of this environmental item is the fact that the DG Environment does not actually adopt the environmental programs. To be able to compare this item with the non-EU Mediterranean countries this last criteria is not necessary for the item to be adopted.

The third item, quota for the promotion of renewable electricity, is also found present and adopted according to the criteria defined for this study. This Directive 2009/28/EC defines a minimum quota with a "mandatory target of a 20 % share of energy from renewable sources in overall Community energy consumption by 2020 and a mandatory 10 % minimum target to be achieved by all Member States for the share of biofuels in transport petrol and diesel consumption by 2020" (European Parliament & Council, 2009).

The fourth item, constitutional article on environmental sustainability, can be seen as adopted by the EU as it also fulfils all criteria. Just one citation proving the EU's commitment is: "environmental

protection requirements must be integrated into the definition and implementation of other Community policies" (Maastricht Treaty, 1992, Art.130r).

Finally, the environmental policy item eco-labeling can also be considered as present and formally adopted as all criteria are fulfilled. The EU eco-label has a European wide scope, is accepted in all EU member states and some additional European countries, and is based on Regulation No 880/1992. (DG Environment, 2009)

4.1.5 Selection of countries

The official connection between the European Union and the non-EU Mediterranean countries is the Euro-Mediterranean partnership known as the Barcelona Process: Union for the Mediterranean. The Barcelona process was initially started 1995 and "launched an innovative relationship (…) that works on the basis of partnership, dialogue and joint ownership to advance common objectives" (European Commission et al., 2005). In 2008 the Barcelona process got a new impulse and has from then on been called the Union for the Mediterranean. Even though there has been this update this study concentrates on the country composition in the initial process of 1995 when the Euro-Mediterranean partnership was officially launched for research reasons.

The sample size has been determined under the aspect of the bigger the sample the more accurate and the higher the reliability, but has been limited by aspects of time and data available. Considering that this is a qualitative study with the purpose of in-depth testing the comparability of this case with older results four countries have been determined to make up the sample including for each another five environmental policy items. The type of sampling used was purposive, non-probability sampling. The countries selected are from the group of countries that became partners with the EU in 1995. The four Mediterranean countries have been chosen out of all nine initial partnership countries (excluding Turkey which clearly is interested in membership) in the Barcelona process: Union for the Mediterranean according to the biggest expected variation on the independent variables and low variation on the controlling variables. This way the influence of domestic factors on the outcomes should be rather small and thus exclude the domestic factors as explanatory factors. According to the above reasoning the following four countries have been selected: Tunisia, Morocco, Jordan and Syria.[4]

4.2 Independent variables measurement

The choice of independent variables has been guided by a careful evaluation of policy transfer mechanisms through out literature (Busch & Jörgens, 2005; Holzinger & Knill, 2005; Knill & Tosun, 2009). As this study is a follow-up study in form of an extended case study it seems correct to stick to these already used mechanisms with there attached terms, definitions and often also operationalization to make the results of this study comparable. However, some modifications have been done according to earlier results and logical reasoning.

4.2.1 Institutional Membership

To operationalize international harmonization and transnational communication membership in international organizations is analysed. The international organizations have been chosen from a list of international organizations that has been used in the Envipolcon project. In this project a total of 35 organizations were used, however, these are far too many for the extent of this study. Also a number of organizations chosen for the Envipolcon seem not suitable for the purpose of this research as they focus purely on the European continent. While choosing for some of the organizations emphasize has been put on choosing a broad range of organizations with different characteristics and working fields. The organizations finally chosen from the Envipolcon project for this study are thirteen international institutions representing broader political institutions, institutions with focus on environmental issues, institutions that include environmental issues into their main activities and global environmental regimes and one regional regime. All of these institutions have a fixed encompassingness score which shows the weight of an institution measured on its breadth of its fields of activity, the scope of environmental problems that are regulated and the differences in the relative importance of environmental aspects for an institution. These three indicators represent the various dimensions of size effects. (Heichel, Holzinger, Sommerer, Liefferink, Pape & Veenman, 2008)

[4] For more details see: 8.3 Annex 3 „Country selection with criteria"

4.2.2 International Harmonization

To be able to test international harmonization an index of obligatory potential is added to the data of institutional membership and encompassingness. The obligatory potential of an institution is calculated by taking into account the degree of bindingness of an institution on domestic policy-makers. Considering this degree of regulatory output the type of law is the first indicator used. This indicator consists of three categories which are supranational law, international hard law and international soft law. Secondly, the extent of monitoring is used as a second indicator. This indicator has four categories which range from monitoring by court to diplomacy. To calculate the obligatory potential of the international organization also the obligatory scores of the thirteen institutions are directly adopted from the Envipolcon project. Kindly, Thomas Sommerer provided the scores of the 35 international organisations with their encompassingness scores, obligatory potential scores and communicative potential scores (Holzinger, Knill & Arts, 2008). By using the obligatory potential scores of all organization one country is a member of and adding them up the obligatory potential can be calculated acting on one country. For the obligatory potential the date of ratification is used and mentioned only once.

4.2.3 Transnational Communication

The mechanism of transnational communication is tested by using scores on the communicative potential of the same international organizations that are also used for international harmonization. By using the membership in these organizations and the communicative potential the influence by these institutions is measured beyond the obligatory potential through law and legislation. The extent of information exchange and communication is operationalized by using four indicators for communicative potential. The four indicators are frequency of interaction, number of organisational bodies, permanence of representation and size of staff. Frequency of interaction uses as categories the number of annual meetings of national representative. Numbers of organisational bodies are the bodies where national representatives meet. The permanence of representation is either existent or not. Finally, the size of staff is measured in number of permanent employees in environmental departments. While it is important to know the composition of the communicative potential score, we again use the scores as calculated in the Envipolcon project. However, for these scores a little change has been done. While the obligatory potential scores have been computed with the scores as mentioned in the Envipolcon table, the communicative scores have been modified by adding another indicator. The length of membership in an organization has been added which changed the index from 0-40 into 0-50 with length of membership having also a scale of 0-10 and with this being weighted as the other four indicators of communicative potential. The actual numbers of years of membership have been transformed into the scale 0-10 by giving a ten if the country has been member since 65 years which was the maximum of years of a country in one organization. Using these amended scores they are added up for the communicative scores of the country. For the communicative potential the date of accession is used.

4.2.4 Regulatory Competition

The mechanism of regulatory competition is the third mechanism which is expected to lead to convergence that had been introduced in the theoretical part. This independent variable is operationalized and made measureable by using data on the bilateral trade relations. By using bilateral trade data between the EU and the respective country we concentrate on the competitive forces between the two. Earlier research looked at trade relations of a country in general with the world and calculated the international competitive pressures this way. However, in this research the focus lies on convergence between the two. Data has been taken from the Directorate-General for Trade of the European Commission (DG Trade, 2009) and was noted for all four countries. Every country has two scores which make them comparable. One score is the percentage of total export a country delivers to the EU and the second is the percentage of total goods a country imports from the EU. Additionally, information has been added on which rank the EU is for the perspective country on export partner and import partner.

4.2.5 Domestic factors

Although the goal of the study is to understand how external factors can function and lead to policy convergence across nations some domestic variables are included as control variables. As laid out above they constitute the idea that policy convergence might also occur independently as a natural response to a problem. To control for this several domestic factors have been added.

The first control variable used is the ability of a nation to protect the environment of several decades. To measure this variable the score a country has on the environmental sustainability index 2005 is used. Adding this variable ensures a common background on the ability to adapt environmental policy items and measures. Second, for the measurement of economic development this study uses income level GDP/capita as retrieved from the Environmental sustainability index. The GDP is measured in US dollar. Third, this study used the values of CO2 emissions as an indicator for problem pressure. The CO2 emissions are measured in thousand metric tonnes of carbon dioxide per capita and have been taken from World Resource Institute 2003. Fourth, the variable social emulation has been added. By adding this variable we can assess the cultural similarity of the countries by including the region and language as indicators. To classify the region a country belongs to the countries were categorized into Maghreb or Mashreq and the official language of a country has been taken from the countries official webpage.

4.3 Method of data analysis

This study is a comparable case study which aims at best possible results by using a new case to test earlier results of convergence studies. By using the same or mostly similar variables and mechanisms as in earlier studies this study tests these theories and results and can add to the theory's development. While the operationalization might include some disadvantages as the selection of cases might be biased and the extent of data available is limited which limits the external and statistical conclusion validity of this study, using a comparable case study does have the advantage of including new hypotheses and complex relationships and having a rather high level of construct validity. The disadvantage of limited generalizability of comparable case study results is outperformed by the fact that this qualitative research method can identify and test causal mechanisms with qualitative data.

Having operationalized and gathered all data on the environmental policy items according to their criteria and on the independent variables the study can analyse the data and with this the potential convergence mechanisms in a convenient way. For the analysis several steps are taken which all rest on the technique of pattern matching. The pattern-matching logic works by comparing a predicted relationship, in this case our hypotheses, with the empirically found patterns. (Yin, 2003) More specifically rival explanations are used as patterns. While the data gathering has shown that the dependent variable represented by the several environmental policy items have had a certain type of outcome (adopted/not adopted), this type of analysis explains how and why these outcomes have occurred by applying the three mechanisms of convergence that have been tested and controlled by the domestic factors. However, while typical rival theoretical prepositions usually are mutually exclusive in this research the independent variables can overlap and explain outcomes simultaneously. The actual analysis takes place when the predicted patterns are compared with the actual patterns. The predicted patterns are presented by the hypotheses that have been set up.

5 ANALYSIS

Four hypotheses have been set up for this study and are analysed first descriptively and then in an explanatory study. Starting off with the first two hypotheses both related to common membership in international institutions, the first hypothesis on international harmonization says the higher the obligatory potential between a Mediterranean, non-EU country and the EU the higher the probability that this country will show policy convergence with the EU. Transnational communication takes a different focus but is still dependent on common membership and says the higher the communicative potential between the two the more likely is policy convergence. Third, the hypothesis of regulatory competition says the stronger the economic relations between a Mediterranean, non-EU country and the EU the more likely is environmental cross-national policy convergence. This hypothesis says convergence depends on economical interdependencies. Finally, a fourth hypothesis was added to account for the theory that cross-national policy convergence in the environmental field might occur due to similar but independent problem solving of similar problems. This hypothesis says that the

higher the similarity between a Mediterranean, non-EU country and the EU with regard to domestic factors, the more likely the environmental policies of this country will converge with the EU.

The following section first analyses the data descriptively. This way it is shown to what extend the Mediterranean countries studies actually adapted the studied environmental policy items and whether we can speak of convergence between the four countries with the EU. Additionally, the independent variables and their data are presented showing the results of their descriptive analyses. In a second section, the descriptive analysis is taken a step further by using the results of this descriptive study and the analysed data in an explanatory analysis. The explanatory analysis connects the independent variables to the dependent variables. By connecting the found data of both types of variables the theorized causal relationships are tested. While discussing the results the four hypotheses are tested and the result of this shows which of the mechanisms explains environmental, cross-national policy convergence between the EU and its Mediterranean partnership countries best.

5.1 Descriptive analysis

5.1.1 Dependent variables

In Tunisia, Morocco, Syria and Jordan five different environmental policy items have been studied.

5.1.1.1 Environmental Policy Plan

First, the presence of an environmental policy plan was tested by applying all necessary criteria for this item to be adopted. The criteria for an environmental policy plan to be accounted as adopted were that the plan needs to be of nation-wide scope, formally adopted by government, be an official government program, it needs to have mid- and long term environmental goals, entail concrete objectives and describe the way these objectives are to be implemented, and finally it needs some type of review mechanism which looks at the implementation of the policy plan.

In Tunisia this environmental policy item can be clearly called fully adopted. Tunisia has included its environmental policy aims in the "National action programme for the environment and sustainable development for the 21st century". This programme is the Tunisian Agenda 21 which followed as a national initiative the international Mediterranean Agenda 21 which was adopted 1994 after the 1992 UN Conference on Environment and Development (UNCED) in Rio. The Tunisian Agenda 21 identifies the current environmental situation and problems in Tunisia, and proposes strategies and operational measures to achieve sustainable development. (Ministère de l'Environnement et de l'Aménagement du Territoire, n.d.)

In Morocco this policy item is seen as adopted for the biggest part as nearly all criteria are fulfilled, but it is not considered as officially adopted as one criterion is missing. The "*Stratégie Nationale pour la Protection de l'Environnement et le Développement Durable* (SNPEDD)" from 1995 and the "*Plan d'Action National pour la Protection de l'Environnement* (PANE)" from 1998 are Morocco's National Strategy for the Protection of the Environment and Sustainable Development and the National Plan of Action for the Environment. (Département de l'Environnement, 2009; Tarradell, 2004) With these two elements which naturally belong together Morocco has established an extensive environmental strategy that combines the protection of the environment and sustainable development. Both elements are of national scope and government programs which have been officially adopted. The SNPEDD's main objective is the integration and strengthening of environmental concerns in economic development activities. To achieve this it proposes certain objectives and asks for the establishment of mid- and long term target levels. The strategy itself also sets the main activities for the formulation and implementation of the strategy. The PANE document takes the strategy to the next level by formulating the action plan according to the SNPEDD objectives. In the PANE the implementation dimension is added to the general framework of the SNPEDD. The PANE takes the strategy and clarifies its own objectives on the basis of specific criteria. Its content finally explains the proposed actions necessary for implementation. Generally, the PANE establishes an institutional framework and possible financial sources for implementation. (Département de l'Environnement, 2009; Tarradell, 2004) While these elements fulfil most of the criteria, no clear review mechanism can be found. Up till now the Moroccan policy plans do not entail classical permits, controls or prohibition procedures, strategic assessments nor compliance mechanisms, nor any indicators and reports. (Tarradell, 2004)

In Syria we find the same situation as in Morocco. Also Syria has a national strategy and an environmental national action plan. Both programs are of national scope, government programs and have been officially adopted. The national strategy for sustainable development explicitly states what the targets and priorities are for national sustainable development. The actions that should be aimed at take place at regional and sub-regional, national and international level. The Syrian National Environmental Action Plan **(**NEAP**)** was adopted to propose several concrete actions defined in sub-plans and programs which should lead to an overall sustainable development in Syria. (The National Technical Committee for Sustainable Development, 2001) However, again the criterion of an existent review mechanism is not fulfilled. "There is no systematic environmental monitoring, only fragmentary data exist that are collected during short campaigns, usually in response to an incident or complaint" (The National Technical Committee for Sustainable Development, 2001, p.7). The only point in which Syria is more advanced than Morocco is that Syria has mentioned review mechanisms which are just still under development and have not been implemented yet.

Jordan shows the same elements like Tunisia concerning the environmental policy item of environmental policy plan and has also adopted this item with all its criteria. Jordan has its "Biodiversity strategy and action plan (NBSAP)" which again includes the two elements of a national strategy and an action plan for the implementation of environmental objectives. The Jordan National Biodiversity Strategy sets up the framework for actions at all levels, promotes the conservation of biodiversity and the sustainable use of our biological resources and describes it will contribute to international efforts. The general objectives are described in the five strategic goals which are accompanied by several guiding principles. Most importantly it proposes a series of priority objectives and actions. Again, we find that the action plan, here the Jordan Biodiversity Action Plan, takes the strategy to an implementation dimension. It proposes the projects related to the measures identified in the strategy. (General Corporation for the Environment Protection, 2001) In Jordan all criteria are fulfilled as monitoring and reporting is existent. The National Biodiversity Unit monitors and reports on the whole NBSAP implementation process. The monitoring is based on performance indicators developed for each NBSAP sectoral objective and reports on this monitoring are prepared. (General Corporation for the Environment Protection, 2001)

5.1.1.2 Environmental Ministry

Second, in all four countries the presence of an environmental ministry was controlled for by applying all necessary criteria for this item to be adopted. The criteria to be able to say that this item, environmental ministry, is adopted were again that it has to be of nation-wide scope and formally adopted. Additionally, the ministry has to address the whole range of environmental issues, has to work on the preparation of environmental decisions, regulations and laws, and also their implementation. Finally, the ministry needs to represent domestic environmental issues on international level.

The Tunisian environmental ministry is called "*Ministère de l'Environnement et de Développement"* (Ministry of the Environment and Sustainable Development) and fulfills all criteria of this environmental policy item. It is the official governmental institution which is responsible for the entire environmental protection and environmental sustainability subject on national and further levels. It proposes general policy in the areas of environment, ensures that these policies are implemented and promotes the laws on environment protection and nature conservation. Further, this ministry also ensures the fulfillment of international obligations, monitors sustainable development processes at international and regional levels, and represents the Tunisian Government to international bodies as well as to bilateral and multilateral meetings. (Ministère de l'Environnement et de Développement, n.d. ; The Tunisian Government Portal, n.d.)

The Moroccan ministry is called "*Ministère de l'énergie, des mines, de l'eau et de l'environnement"* which is in English the Ministry for energy, mining, water and the environment. This ministry fulfils most of the criteria but not all of them, and can as such only be counted as partly adopted. The Moroccan environmental ministry is also an official government body and is of national scope. It also fulfils the criteria of being the body that addresses the whole range of environmental issues and works on the preparation of environmental decisions, regulations and laws. However, no reliable information could be found on whether this ministry also works on the implementation of environmental decisions, regulations and laws and represents domestic environmental issues on international level.

The Syrian ministry does seem to exist and is referred to as the "Ministry of state for Environmental affairs". However, neither the webpage nor any other further information was accessible. Consequently, this item can not be evaluated for Syria properly and is thus counted as not adopted.

The Jordan ministry, "Ministry of Environment", fulfils all criteria and is the clear responsible for the entire range of environmental subjects in the Jordan. It's the official government organ, is responsible for the whole nation, and work on the preparation and implementation of environmental decisions, regulations and laws. Additionally, the ministry represent environmental national issues on international level and works together with other foreign institutions on its issues. (Ministry of Environment, n.d.)

5.1.1.3 Quota for the promotion of renewable electricity

Third, the next environmental policy item analysed in the four countries is the existence of a national quota for the promotion of renewable electricity. The criteria for this item to be counted as adopted are that the quote needs to be of national scope, it has to be officially adopted, and it needs to be a nationally defined minimum quota. This environmental policy item is the only item of the five items analysed in the four countries that is present with all its criteria in all four countries.

Tunisia has its "Renewable Energy Action Programme" which promotes renewable energy (final and primary) to reach 10% in national energy demand by 2011 and aims at reduction of total demand. Additional goals have been added on the amount of electricity to be produced through wind and sun. (REN21, n.d.) Also Morocco promotes in its "Renewable Energy Action Programme" to increase the contribution of renewable energy to 10% of national energy balance and 20% in electricity supply by 2012. The amount of renewable energy in electricity supply is defined more precisely through the aimed at amounts through wind and hydropower. (REN21, n.d.) Syria renewable energy target is 1012 ktoe/yr (kilotons of oil equivalent per year) which is equivalent to 4.3% of the primary energy demand. More precise Syria defined of the renewable total 50% to be through wind. (RCREEE, 2009) Jordan has laid down in its "Renewable Energy Action Programme" that the utilisation of renewable energy sources should share 7% in the primary energy by 2015 and 10% by the year 2020. Wind is to deliver 600 MW by 2020 and Solar PV 300 MW by 2020. (REN21, n.d.)

5.1.1.4 Constitutional article mentioning the protection of the environment or environmental sustainability

Fourth, it was controlled for whether the environmental policy item 'constitutional article' does existent in any of the four countries. If this item was to be counted as adopted it has to fulfil the criteria that it has to be of nation-wide scope and formally adopted which is automatically the case with a constitutional article, and it needs to be an article in the official national constitution on how environmental sustainability is to be included in national governance. The analysis of this item has shown that none of the four countries has a constitutional article on environmental sustainability or included the environment in its constitution. Interesting is that of the approximately 193 countries of the world, there are now 117 whose national constitutions mention the protection of the environment or natural resources (Earthjustice, 2005). It would be interesting to find out whether it is just an incident that these four countries all don't have it in their constitution or whether it can be explained.

5.1.1.5 Eco-labelling

Finally, the last environmental policy item that has been studied in the four countries is eco-labelling. To be able to say that eco-labelling is existent in a country and for this item to be adopted the criteria are that the label needs to be of nation-wide scope and formally adopted, it needs to be on voluntary basis, it has to be based on multiple criteria, it needs to be awarded by a third party, and it needs to focus on a product being preferable because it is based in life cycle considerations. Taking all these criteria together they can be equated with what is officially called the "ISO Type I Eco- Labels". The study has shown that only Tunisia has a national eco-label that fulfils all these criteria and thus has adopted this policy item. The Tunisian eco-labelling scheme was introduced in 2004 and is up till now the only national eco-label in Africa. The Tunisian national eco-labelling scheme "life" is an ISO Type I eco-label, focus on products relevant to EU markets (stringent requirements) and encourage manufacturers to produce goods with less pollutant. (UNEP, n.d.)

5.1.1.6 Conclusion: Environmental policy items

Table 1 *Presence of policy items in the four countries*

	Item present	**Partly present**	**Not present**
Policy Plan	Tunisia, Jordan	Morocco, Syria	
Ministry	Tunisia, Jordan	Morocco	Syria
Quota	Tunisia, Morocco, Syria, Jordan		
Article			Tunisia, Morocco, Syria, Jordan
Eco-label	Tunisia		Morocco, Syria, Jordan

Summarizing the results of the descriptive analysis of environmental policy items it can be seen that the adoption rates and patterns are very different across the items. When considering the number of countries that adopted an item we find that the overall picture is mainly that either all countries adopted an item or none. Even if only some countries adopted it normally the others have partly adopted it. The only item that does not fit into these patterns is the adoption of a national eco-labeling scheme by Tunisia. Finding rather similar results on all countries this might already be an indication that the independent variable might not be that effective and explain the adoption. However, the result is still dependent on the concrete evaluation of the independent variables.

On the first look we can say that convergence does take place to a certain extent as some of the items have been adopted and by that the policy similarity in the environmental field between the Mediterranean partnership countries and the EU seems to increase.

5.1.2 Independent variables

The descriptive analyses of the independent variables show how the single indicators of the different convergence mechanism exist in different forms in Tunisia, Morocco, Syria and Jordan.

5.1.2.1 Institutional membership

The first indicator which has been introduced was institutional membership in international organizations. This indicator is used to test the convergence mechanism of international harmonization but also transnational communication. Tunisia is member in nine of the thirteen institutions tested, Morocco in ten, Syria in eight and Jordan in nine. All four countries are members of the same eight institutions, but Tunisia, Morocco and Jordan are also members in the WTO, and Morocco also in the EBRD. None of the four countries are members in the OECD, the Espoo convention on Environmental impact assessment in a transboundary context, and also not of the Geneva Convention on transboundary air pollution.

5.1.2.2 Obligatory potential scores

The obligatory potentials of the several institutions a country is member of have been added up to one obligatory potential score affecting a country. This score is an indication of how much pressure the international organizations a country is member of have on this country to adopt certain environmental policies. The scores for the four countries are the following: Tunisia has a obligatory potential score of 2,9, Morocco has a score of 3,25, Syria a score of 2,45, and Jordan has a score of 2,9. As the obligatory scores do not depend on the length of membership Tunisia and Jordan have the same score as they are members in the same institutions. Syria has a lower score and Morocco has the highest score of all four countries.

5.1.2.3 Communicative potential scores

The communicative potential of an institution shows how big the possibilities and how strong communication between the different member countries is in that institution. Also for these scores the several communication scores of the different institutions have been added up per country to define the overall communication score. The scores for the four countries are the following: Tunisia has a communicative potential score of 2,77, Morocco has a score of 2,9, Syria a score of 2,36, and Jordan a

score of 2,78. As these scores indicate, Morocco has also the highest communicative score and Syria again the lowest score.

5.1.2.4 Bilateral trade data

The bilateral trade data between the four individual Mediterranean partnership countries and the EU has been gathered as indicator to test the convergence mechanism of regulatory competition. The final scores for the four countries are a combination of two scores. First the analysis includes the imports from EU to the respective country, and second the exports to EU from that respective country are included. The results show that Tunisia has the strongest bilateral trade relations with the EU from the four countries studied. 67,9% of Tunisian imports are from the EU and 73,5 of its exports go to the EU. This way the EU is the most important trade partner of Tunisia for import and export worldwide. Second, Morocco also shows strong bilateral trade relations with the EU. Again the EU is the major import and export partner worldwide with 58,2% of Moroccan imports coming from the EU and 57,2% of Morocco's exports going to the EU. (DG Trade, 2009) For Syria and Jordan the EU is in both cases the most important partner for their imports, but not for their exports. Syria is considered to have the third strongest bilateral trade relations of the four countries. Syria imports 20,0% of all its good from the EU, and exports 27,9% to the EU. Only the Iraq is more important for export with 30,2%. Jordan scores the last rank in relation to bilateral trade relations with the EU. While the imports from the EU lie by 26,0%, EU scores only sixth on countries Jordan exports to. While Jordan exports only 6% to the EU, it exports more to the US, Iraq, United Arab Emirates, India and Saudi Arabia. (DG Trade, 2009)

5.1.2.5 Domestic variables

Finally, data on the domestic variables of the four countries has been gathered to control for the theory that similar problem structures lead to similar but independent responses. Therefore, the report chose four domestic variables which are environmental sustainability index, GDP/capita, CO2 emissions and region/language.

The environmental sustainability index is used to ensure a common background on the ability to adapt environmental policy items and measures. According to the 2005 index Tunisia scored highest with a score of 51.8 ranking 55th of 146 countries. Jordan is second from the four countries with a score of 47.8 and a rank of 84, Morocco is third with a score of 44.8 and a rank of 105. Syria scores worst in comparison with the other three and has the rank 117 with a score of 43.8. (Environmental sustainability index, 2005) As a second indicator for the domestic variables the GDP per capita is used to measure the economic development. Again it is Tunisia that scores highest of the four with a GDP/capita of 6,160$. Jordan has the second highest GDP/capita with 3,756$. Morocco has a GDP/capita of 3,469$ and Syria 3,109$. (Environmental sustainability index, 2005) The third data used is the CO2 emission in a country which one possible indicator for the problem pressure in that country. The scores are thousand metric tonnes of carbon dioxide per capita. Syria has the highest CO2 emissions per capita with 2.80000. Syria is followed by Jordan with 2.69712 and then follows Tunisia with 2.000289. Morocco has the lowest CO2 emissions with 1.01559. (World Resource Institute, 2003) Finally, to measure social emulation which assesses the cultural similarity of countries two different indicators are included: language and region. All four countries belong to the so called Maghreb or Mashreq regions and have as a first official state language Arabic.

5.1.2.6 Conclusion: Independent variables

Table 2 *Independent variables*

Obligatory potential			**Communicative potential**			**Bilateral trade relations with the EU**		
Low	*Medium*	*High*	*Low*	*Medium*	*High*	*Weak*	*Medium*	*Strong*
Syria	Tunisia Jordan	Morocco	Syria	Tunisia Jordan	Morocco	Syria Jordan	Morocco	Tunisia

Having analysed the independent variables the study shows how the countries are distributed. The table above has sorted the results and countries per independent variable by using the three values low, medium and high. These values are purely introduced to give a visualization of the results. The

allocation of countries to these values has been done in comparison with each other. This means, while all countries might score quite similar on a variable, still little differences make the classification. The domestic variables are not included in this table as they are used as only as control variables. Summarizing we find that Syria and also Jordan are under rather low influence by all three variables, and Tunisia and Morocco score higher.

5.2 Explanatory analysis

The descriptive analysis has shown to what extent the four countries have adopted the five different policy items. Also has the descriptive analysis shown how the independent variables and there values look like in the four countries. This second, and final, part of the analysis connects the results of the descriptive analyses to be able to discuss the explanatory power of the independent variables and to be able to make statements about the hypotheses. By adding this explanatory approach the descriptive results can actually be used to answer the research question and the sub-research questions.

Table 3 below summarized the results found in the descriptive analyses and helps to comprehend how the dependent and independent variables relate. The grey coloured columns indicate what the theoretical expectations of the convergence mechanisms are. As such it can be seen that if an independent variable is high/strong item adoption is expected, and if it is low/weak the item is not expected to be adopted. As mentioned above the medium scores on the dependent variables (partly adopted) and on the independent variables (medium) are just added indications and are not considered as positive outcomes. The table is a visual help which is followed by careful analyses of each independent variable below.

Table 3 *Pattern-matching: Dependent and Independent variables*

INTERNATIONAL HARMONIZATION									
	High obligatory potential			***Medium obligatory potential***			***Low obligatory potential***		
	Item adop.	**Partly adop.**	**Not adop.**	**Item adop.**	**Partly adop.**	**Not adop.**	**Item adop.**	**Partly adop.**	**Not adop.**
Policy Plan		Morocco		Tunisia Jordan				Syria	
Ministry		Morocco		Tunisia Jordan					Syria
Quota	Morocco			Tunisia Jordan			Syria		
Article			Morocco			Tunisia Jordan			Syria
Eco-label			Morocco	Tunisia		Jordan			Syria
TRANSNATIONAL COMMUNICATION									
	High communicative potential			***Medium communicative potential***			***Low communicative potential***		
	Item adop.	**Partly adop.**	**Not adop.**	**Item adop.**	**Partly adop.**	**Not adop.**	**Item adop.**	**Partly adop.**	**Not adop.**
Policy Plan		Morocco		Tunisia Jordan				Syria	
Ministry		Morocco		Tunisia Jordan					Syria
Quota	Morocco			Tunisia Jordan			Syria		
Article			Morocco			Tunisia Jordan			Syria
Eco-label			Morocco	Tunisia		Jordan			Syria

REGULATORY COMPETITION									
	Strong bilateral trade relations			***Medium bilateral trade relations***			***Weak bilateral trade relations***		
	Item adop.	**Partly adop.**	**Not adop.**	**Item adop.**	**Partly adop.**	**Not adop.**	**Item adop.**	**Partly adop.**	**Not adop.**
Policy Plan	Tunisia				Morocco		Jordan	Syria	
Ministry	Tunisia				Morocco		Jordan		Syria
Quota	Tunisia			Morocco			Syria Jordan		
Article			Tunisia			Morocco			Syria Jordan
Eco-label	Tunisia					Morocco			Syria Jordan

5.2.1 Findings for international harmonization

For the international harmonization mechanism to cause convergence the hypothesis set-up said that the higher the obligatory score of a non-EU, Mediterranean country the more likely this country is to converge with the EU. As such a positive relationship is expected. The results of the descriptive analysis show that Morocco has the highest score on obligatory potential with 3.25, followed by Tunisia and Jordan with 2.9, and Syria having the lowest score with 2.45. The theoretical expectation is thus that Morocco should have adopted all or at least most of the environmental policy items and Syria on the other side should have adopted none or at least not many. However, the results of the descriptive analysis of the policy items shows that both Morocco and Syria adopted only one of the five items completely as according to the criteria. Jordan adopted three and Tunisia adopted four of the five items. The results would verify the assumption that Syria should not have adopted many of the items, but on the other side the results are very contrary due to the Moroccan result.

With these results the hypothesis about the obligatory potential causing international harmonization to be the convergence mechanism can not be confirmed. This holds for all different types of environmental policy items and concluding it can be said that international harmonization is not a direct driving factor of cross-national policy convergence.

5.2.2 Findings for transnational communication

The hypothesis of transnational communication says that the higher the communicative score a Mediterranean country scores the higher the cross-national convergence of environmental policies with the EU. This causal relationship is expected to be of positive direction. The results of the descriptive analysis show again the same constellation as under the obligatory score. Morocco scores highest with a score of 2.9, followed by Tunisia and Jordan which have scores very similar of 2.77 and 2.78. Finally, Syria again scores lowest with a communicative score of 2.36. Consequently, this raises the same theoretical expectations that Morocco has adopted the most environmental policy items, followed by Tunisia and Jordan. Syria should theoretically have adopted the fewest items. Contrary to these expectations the results show that this cannot be verified by the data. Like already mentioned under the findings of international harmonization both Morocco and Syria adopted only one of the five items completely, and Jordan adopted three and Tunisia adopted four of the five items.

With this result also this hypothesis cannot be confirmed and needs to be rejected. As such we cannot confirm that transnational communication is a driving factor of environmental policy convergence across the Mediterranean countries and the EU. This holds true for all types of environmental policy items studied.

5.2.3 Findings for regulatory competition

The convergence mechanism of regulatory competition hypothesizes that the stronger the bilateral trade relationship between a non-EU, Mediterranean partnership country and the EU the more likely it is that their environmental policies will converge. The descriptive analysis shows that Tunisia has the strongest trade relation with the EU, but is directly followed by Morocco which also has an extensive trade relationship with the EU also in both import and export. Syria is considered to have the third

strongest bilateral trade relations and Jordan scores the last rank in relation to bilateral trade relations with the EU. This means that due to theoretical expectations Tunisia should adopt most policy items, followed by Morocco and then Syria. And that Jordan should have adopted none or the fewest items compared to the other countries. The results of the descriptive analysis seem also not to fit this theoretical expectation. While this mechanism does seem to explain the highest adoption rate to be present in Tunisia with four out of five items, the fact that Jordan is the country with the second highest adoption rate is contrary to the expectation that Jordan's rate should be lowest.

This result again leads to the fact that the hypothesis cannot be confirmed which means that also the potential explanatory power of regulatory competition to be a driving factor of environmental policy convergence cannot the confirmed. This result is similar for all types of policy items analysed.

5.2.4 Findings for domestic variables

The domestic variables were introduced in this study to control for the explanatory power of the theoretical argument that policy convergence in the environmental field takes place due to similar, but independent responses on a similar policy problem. As this study concentrates on the explanatory power of external convergence mechanisms domestic variables have been controlled for to be able to eliminate the possible explanatory effect of domestic variables. The hypothesis formulated around this was that the higher the similarity between a Mediterranean partnership country and the EU with regard to domestic similarity, the more likely the environmental policies of this country will converge with the EU. As the four countries of this study where selected on the domestic variables they should show the same degree of similarity with the EU and consequently also have the same degree and extent of convergence.

Contrary to the first aim of introducing control variables, the theoretical explanation of domestic variables does fit the descriptive analysis results best. While the three external cross-national convergence mechanism that were tested all showed to not be able to explain the descriptive results, the domestic variables fit the hypothesized relation and holds over most policy items. Through pattern matching we can verify the hypothesis that similar domestic factors lead to similar environmental policy adoption. With all four countries showing similar patterns on the adoption of the environmental policy items tested it is a first indication for the effect domestic variables might have on cross-national policy adoption. Especially interesting is the fact that the environmental sustainability index and the GDP per capita seem to be good indications for environmental policy adaption on first sight. Tunisia scores highest on both indicators and also adopted the most tested items, and also with Jordan it is found that it scores second best on both indicators and also adopted the second most items. This leaves Syria and Morocco scoring worst on the environmental sustainability index and GDP per capita and also adopting the fewest environmental policy items.

It is important to keep in mind, however, that the hypothesis said that the more similar a country is with the EU the more likely we will find cross-national environmental policy convergence between them. This hypothesis cannot be answered as the results only show that the Mediterranean countries that share similar domestic factors show the same results. No conclusion can be made on how similar they are with the EU and to what extent their environmental policies are converging with the EU's environmental policies.

5.2.5 Conclusion: explanatory analysis

Summing up all results of the explanatory analysis this study shows that none of the three external cross-national convergence mechanisms explain the found results of environmental policy adoption in the four non-EU Mediterranean countries. As such the first three hypotheses are rejected and obligatory potential, communicative potential and regulatory competition can all not be used to explain convergence. Consequently, none of the three mechanisms is seen in this study as driving factors of cross-national policy convergence between non-EU Mediterranean countries and the EU. On the other hand, a rather unexpected result shows that domestic factors of countries should find more consideration in cross-national environmental convergence research. Even though the domestic factors were only introduced as control factors they do seem to explain the outcome best.

6 CONCLUSION

The incentive for this study was the Envipolcon project which tested several convergence mechanisms between EU and potential new EU membership countries. This study then set out to test cross-national policy convergence in the environmental field between non-EU Mediterranean partnership countries and the EU, and to try to find out by this whether results found for within the EU also hold over new cases. The three convergence mechanisms tested are all external factors that are theoretically thought to be able to explain environmental policy convergence. While international harmonization argues that the obligatory potential of international organization leads to convergence, transnational communication says it is the communicative potential and regulatory competition takes a third approach and says trade relations between the respective country and the EU is the explanatory factor. Finally, domestic variables were introduced to control for the theoretical possibility that countries react similar, but independent on similar policy problems.

The descriptive analysis showed that when observing the adoption patterns of the five environmental policy items either all four countries seem to adopt an item or none do. Even though Tunisia adopted four out of five, Jordan three out of five, and Morocco and Syria only one out of five the results still indicate that they are all moving into a similar direction. The only item that does not fit this general pattern is the adoption of a national eco-label by Tunisia as the three other countries have not even partly adopted such an item. The descriptive analysis gave the impression that probably none of the three external convergence mechanisms will explain policy convergence in the environmental field. A prediction on the effects of the domestic variables was not possible yet.

Following, the explanatory analysis revealed two different results. First, the assumption of the descriptive analysis that none of the three mechanisms are the driving factor behind environmental convergence was confirmed and with this the first three hypotheses on policy convergence rejected. Using the pattern-matching approach none of the independent variables patterns fitted the dependent variables patterns, and with this obligatory potential, communicative potential and regulatory competition can all not be used to explain convergence between non-EU Mediterranean countries and the EU. Interestingly, when having a closer look on the results of the first two testes hypotheses both related to membership in international institutions it is shown that this study is not able to separate the first two hypotheses from each other as the independent variables of international harmonization and transnational communication show the same results. This raises the question whether it is actually right to separate institutional membership into communicative and obligatory potential.

Second, the explanatory analysis presented a rather unexpected result. Comparing the pattern of the control variable with the patterns of the dependent variables it is seen that the domestic patterns seem to explain the results best at this point. Even though the domestic factors were only introduced as control factors they do seem to explain the outcome best. With this result so far, however, it can only be concluded that similar domestic factors seem to lead to similar environmental policy adoption but the hypothesis on domestic factors cannot be answered as the results only show that the Mediterranean countries that share similar domestic factors show the same results. From this no direct conclusion can be made on how similar these countries are with the EU and to what extent their environmental policies are converging with the EU's environmental policies.

Concluding, the descriptive and explanatory analysis brought the results that none of the three external convergence mechanisms can explain the policy convergence in the case of the four non-EU Mediterranean countries and the EU. After pattern matching all three mechanisms need to be excluded as explanatory factors for the adoption of environmental policy items in Tunisia, Morocco, Syria and Jordan. The domestic factors, measured by environmental sustainability index, GDP per capita, CO2 emissions and cultural similarity, however brought unexpected results. While on the last hypothesis no clear evaluation is possible as the comparison between the four countries and the EU was not stressed, findings do indicate an explanatory role the domestic factors could play. Pattern matching has shown that the domestic factors suit the descriptive results of the dependent variables best. Yet, it is not possible to conclude from these results that the domestic variables explain cross-national policy convergence. As the domestic variables were included as control variables there is no variation on these variables. However, while it is possible to rule out the three external convergence mechanisms tested, this result on domestic variables would be worth more research.

The main aim of this whole study is to answer the question how we can explain cross-national policy convergence in the environmental field between the EU and its Mediterranean partnership

countries. The answer we found is that the three external mechanisms tested are not able to explain the outcome of dependent variables, but that the domestic variables need to be brought back into consideration in cross-national environmental convergence research. While this does not set up a clear answer to why the Mediterranean countries are converging with the EU, it does give direction to further research. Additionally, the findings indicate that it is right to also presume that environmental policy convergence actually does take place. Already the descriptive results show that the Mediterranean countries all to some extend adopt some of the environmental policy items. Next to this the results give an idea about the scope of cross-national environmental policy convergence in these cases. Variation has been found between the different types of environmental policy items and also between the countries. How this is to be explained would need further research, but it can be concluded that variation does exist.

Comparing these results to earlier results it is obvious that they do not coincide and that they are rather surprising. Earlier research across different country constellations had so far always shown similar results. These results mainly said it needs to be differentiated between the types of policy innovation adopted, and that international harmonization is found to contribute most to the explanation of convergence, transnational communication on environmental policy convergence is almost as strong, but explanatory potential of the mechanism of regulatory competition is comparably low. On domestic factors little focus was put and the conclusion on these was normally that they do contribute to the explanation of environmental policy convergence, but can rather be neglected in the research of external convergence mechanisms. (Busch & Jörgens, 2005; Busch & Jörgens, 2005b; Holzinger & Knill & Sommerer, 2008; Knill, 2006; Knill & Tosun, 2009) This study now has proven that domestic factors do deserve extra attention also when analysing external convergence mechanisms as they might have a stronger influence then presumed.

The results of this study interestingly connect to real life happenings and should also find attention in the daily domestic and international politics. If it is considered that the non-EU Mediterranean countries adopt certain types of environmental policy items due to domestic and cultural reasons this might have direct influence on the way to think about making international or even global environmental politics. Observing recent developments these might even prove and support the results as we find that international environmental agreements and conventions seem to fail when aiming at a collective international approach. The findings of this study influence the idea of cross-national environmental governance between Europe and non-European countries by adding authority to the idea that environmental politics are perhaps not a subject to be made, enforced and controlled on international level but rather have to stay domestic politics. This, in turn, might strengthen the focus on including cultural and domestic elements in separate national approaches. While the international level keeps playing a role to facilitate communication and the exchange of ideas and results, it is the domestic level that can only configure national environmental politics.

Yet, before being able to make these rather drastic conclusions and recommendation further research would be necessary. While new research would be appropriate to put extra focus on the domestic factors it could also be used to rule out some of the limitations of this research. This study was mainly restricted through temporal possibilities and access to data. To make this study even more concrete and to be able to test the causal relationships the dataset would need to be extended which is very time extensive. With including more data new focus could be put on differences between different policy items and differences between country groups. The main focus of new research should be the need to clarify whether the results are really the case by introducing more precisely defined domestic factors and by introducing more variation in these. Additionally, new research should concentrate on the question whether the domestic factors are necessary or/and sufficient conditions. While these results have shown that domestic factors might be necessary conditions they do not seem to be sufficient.

7 REFERENCES

Abbot, K.W. & Snidal, D. (1998). Why States Act through Formal International Organizations. *Journal of Conflict Resolution* 42, 3-32.

Babbie, E. (2004). *The Practice of Social Research.* Belmont, CA (USA): Wadsworth, Thomson Learning.

Bechtel, M. M.. & Tosun, J. (2009). Changing Economic Openness for Environmental Policy Convergence: When Can Bilateral Trade Agreements Induce Convergence of Environmental Regulation? *International Studies Quarterly* 53, 931–953

Boyle, J. (1991). Saving the world? Implementation and enforcement of international environmental law though international organizations. *Journal of Environmental Law* 3(2), 229-245. Retrieved June, 2010, from http://jel.oxfordjournals.org/cgi/pdf_extract/3/2/229

Busch, P.-O. and Jörgens, H. (2005). International patterns of environmental policy change and convergence. *European Environment* 15(2): 80–101.

Busch, P.-O. & Jörgens, H. (2005b). The international sources of policy convergence: explaining the spread of environmental policy innovations. *Journal of European Public Policy* 12:5

Busch, P-O. & Jörgens, H. (2006). The international sources of policy convergence: explaining the spread of environmental policy innovations. In Knill, C. (2006b). *Cross-national policy convergence. Causes, concepts and empirical findings* (p. 97-121). London: Routledge.

Conconi, P. (2001). *Conditionality, Separation, and Open Rules in Multilateral Institutions*. CSGR Working Paper No. 85/01. Retrieved June, 2010, from http://www2.warwick.ac.uk/fac/soc/csgr/research/workingpapers/2001/WP8501.pdf

Département de l'Environnement, (2009). *Stratégie et Plan d'Action Chapitre V.* Retrieved Mai, 2010, from http://www.minenv.gov.ma/

DG Environment (2009). *Eco-label: Who does what*. Retrieved April 21st, 2010, from http://ec.europa.eu/environment/ecolabel/about_ecolabel/who_does_what_en.htm

DG Trade, (2009). *Euromed countries and their trade statistics*. Retrieved April 13th, 2010, from http://ec.europa.eu/trade/creating-opportunities/bilateral-relations/regions/euromed/index_en.htm

Dobbin, F., Simmons, B. & Garret, G. (2007). The Global Diffusion of Public Policies: Social Construction, Coercion, Competition, or Learning? *Annual Review of Sociology* 33:449–72.

Dolowitz, D. and Marsh, D. (2000). Learning from abroad: the role of policy transfer in contemporary policy making. *Governance: An International Journal of Policy and Administration* 13(1), 5–24.

Earthjustice, (2005). *Environmental rights report.* Retrieved May, 2010, from http://www.edo.org.au/edoact/submissions/Earthjustice_2005EnvironmentalRightsReport.pdf

Envipolcon, (2006). *Environmental governance in Europe: The impact of international institutions and trade on policy convergence. Final report.* Retrieved May, 2010, from http://www.uni-konstanz.de/FuF/Verwiss/knill/projekte/envipolcon/downloads/Final_Report_2006.pdf

Environmental sustainability index, (2005). *2005 Environmental sustainability index. Benchmarking national environmental stewardship. Appendix B. Country profiles*. Retrieved April 2nd, 2010, from http://www.yale.edu/esi/b_countryprofiles.pdf

European Commission, EuropeAid & DG for External Relations (2005). *2005 Year of the Mediterranean. The Barcelona Process: ten year on*. Retrieved April 13th, 2010, from http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NF6404191

European Commission, (2010). *The Euro-Mediterranean Partnership*. Retrieved March 29th, 2010, from http://ec.europa.eu/external_relations/euromed/index_en.htm

European Parliament & Council, (2009). *DIRECTIVE 2009/28/EC OF THE EUROPEAN PARLIAMENT AND OF 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*. Retrieved April 21st, 2010, from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:EN:PDF

General Corporation for the Environment Protection (2001). *Conservation and sustainable use of biological diversity in Jordan. First National Report.* Retrieved Mai, 2010, from www.cbd.int/doc/world/jo/jo-nbsap-01-en.doc

Global Ecolabelling Network, (1999). *What is ecolabelling?* Retrieved April 2nd, 2010, from http://www.gen.gr.jp/eco.html

Heichel, S., Pape, J. & Sommerer, T. (2006). Is there convergence in convergence theory? An overview of empirical studies on policy convergence. In Knill, C. (2006b). *Cross-national policy convergence. Causes, concepts and empirical findings* (p. 54-77). London: Routledge.

Heichel, S., Holzinger, K., Sommerer, T., Liefferink, D., Pape, J. & Veenman, S. (2008): Research design, variables and data. In: Katharina Holzinger,
Christoph Knill and Bas Arts (Eds.): *Environmental policy convergence in Europe: the impact of international institutions and trade.* Cambridge: Cambridge University Press, pp. 64- 97

Holzinger, K. and Knill, C. (2005). Causes and conditions of cross-national policy convergence. *Journal of European Public Policy* 12(5): 775–796.

Holzinger, K., Knill, C. & Arts, B. (2008). *Environmental Policy Convergence in Europe. The Impact of International Institutions and Trade*. Cambridge: Cambridge University Press, pp.239-240

Holzinger, K., Knill, C. & Sommerer, T. (2008). Environmental policy convergence: the impact of international harmonization, transnational communication, and regulatory competition. *International Organization* 62, 553-587.

Joint Declaration of the Paris Summit for the Mediterranean, (2008). Retrieved March 29th, 2010, from http://www.ue2008.fr/webdav/site/PFUE/shared/import/07/0713_declaration_de_paris/Joint_declaration_of_the_Paris_summit_for_the_Mediterranean-EN.pdf

Koremenos, B., Lipson, C. & Snidal, D. (2001). The rational design of international institutions. *International Organization* 55: 761-799.

Knill, C. (2006). The ENVIPOLCON project. Retrieved March 27th, 2010, from http://www.uni-konstanz.de/FuF/Verwiss/knill/projekte/envipolcon/project-homepage.php

Knill, C. (2006b). *Cross-national policy convergence. Causes, concepts and empirical findings*. London: Routledge.

Knill, C. (2008a). *Quantitative report*. Retrieved April 2nd, 2010, from http://www.uni-konstanz.de/FuF/Verwiss/knill/projekte/envipolcon/downloads/QuantRep_2005.pdf

Knill, C. (2008b). *Indicators, Index Construction and Data Sourcee*. Retrieved April 2nd, 2010, from http://www.uni-konstanz.de/FuF/Verwiss/knill/projekte/envipolcon/downloads/table2.pdf

Knill, C. & Tosun, J. (2009). Hierarchy, networks, or markets: how does the EU shape environmental policy adoptions within and beyond its borders? *Journal of European Public Policy* 16:6, 873-894.

Lenschow, A., Liefferink, D. & Veenman, S. (2005). When the birds sing. A framework for analysing domestic factors behind policy convergence. *Journal of European Public Policy*, 12:5, 797-816. Retrieved May, 2010, from http://www.ingentaconnect.com/content/routledg/rjpp/2005/00000012/00000005/art00004

Maastricht Treaty (1992). *The Maastricht Treaty Art. 103 r2*. Retrieved April 21st, 2010, from http://www.eurotreaties.com/maastrichtec.pdf

Ministère de l'Environnement et de Développement (n.d.). *Portail du Ministère de l'Environnement et de Développement*. Retrieved May, 2010, from http://www.environnement.nat.tn/

Ministère de l'Environnement et de l'Aménagement du Territoire (n.d.). *National Agenda 21*. Retrieved Mai, 2010, from http://www.environnement.nat.tn/agendal/A21tn.PDF

Ministry of Environment, (n.d.). *Ministry of Enviroment of Jordan: official homepage*. Retrieved May, 2010, from http://www.moenv.gov.jo/arabicmoe/users/index.aspx

Population Reference Bureau, (2007). *2007 World Population data sheet*. Retrieved April 13th, 2010, from http://www.scribd.com/doc/326077/World-Population-Datasheet-2007

Porter, M.E. & van der Linde, C. (1995). Toward a New Conception of the Environment-Competitiveness Relationship. *The Journal of Economic Perspectives*, Vol. 9, No. 4, pp. 97-118. Retrieved July, 2010, from http://www.jstor.org/stable/pdfplus/2138392.pdf

RCREEE, (2009). *Country report Syria draft*. Retrieved May, 2010, from http://www.rcreee.org/ViewLibraryArticle.aspx?article=52425002300262511053

REN21, (n.d.). *Renewable interactive map*. Retrieved Mai, 2010, from http://www.ren21.net/map/

Schimmelfennig, F. & Sedelmeier, U. (2004). Governance by conditionality: EU rule transfer to the candidate countries of Central and Eastern Europe. *Journal of European Public Policy* 11:4, 661-679.

Sustainable Homes. (2001). *Developing an environmental policy and action plan*. Retrieved April, 2nd, 2010 from http://www.sustainablehomes.co.uk/pdf/FINALEnviro.pdf

Tarradell, M. (2004). *Morocco case study. Analysis of national strategies for sustainable development. Unedited working paper*. Retrieved Mai, 2010, from http://www.iisd.org/pdf/2004/measure_sdsip_morocco.pdf

The National Technical Committee for Sustainable Development, (2001). *The Syrian National Strategy Report for Sustainable Development*. Retrieved Mai, 2010, from http://www.un.org/jsummit/html/prep_process/national_reports/syria_natl_asses.doc

The Tunisian Government Portal, (n.d.). *Ministry of the environment and sustainable development*. Retrieved June, 2010, from http://www.tunisie.gov.tn/index.php?option=com_ministeres&Itemid=382&task=view&id=19&lang=english

UN. (2007). *Urban population, development and the environment 2007*. Retrieved April 2nd, 2010, from http://www.un.org/esa/population/publications/2007_PopDevt/Urban_2007.pdf

UNdata. (2009). *Statistics. Per capita GDP at current prices – US dollar*. Retrieved April 2nd, 2010, from http://data.un.org/Data.aspx?q=Palestinian+Territory%2C+Occupied&d=SNAAMA&f=grID%3A101%3BcurrID%3AUSD%3BpcFlag%3A1%3BcrID%3A275

UNEP, (n.d.). *Eco-labelling - as a potential marketing tool for African products*. Retrieved May, 2010, from http://www.unep.org/roa/docs/pdf/Eco-labelling-Brochure.pdf

World Resource Institute. (2003). *Environment statistics*. Retrieved April 2nd, 2010, from http://www.nationmaster.com/graph/env_co2_emi_percap-environment-co2-emissions-per-capita#source

Yin, R.K. (2003). *Case study research. Design and methods*. Newbury Park: Sage Publications

8 ANNEXES

8.1 Annex 1: Selection of environmental policy items

Item	**Type**	**Costs of implementation**	**Relation to trade**	**Obligatory**	**Worldwide Degree of convergence**	**Worldwide Average proliferation speed**
Environmental policy plan	Policy program	Medium	No	No	Relatively high	Rather quick
Environmental ministry	Institution	High	No	No	Relatively high	Moderate to slow
Quota for the promotion of renewable electricity	Instrument	Low	Yes	No	/	/
Constitutional article on environmental sustainability	Laws	Low	No	No	(framework laws: relatively high)	(framework law: moderate to slow)
Eco-label	Labels and standards	Medium	Yes	Yes	Relatively low	Relatively low

8.2 Annex 2: Criteria for adoption of certain policy items

	Environmental policy plan	**Environmental ministry**	**Quota for promotion of renewable electricity**	**Constitutional article on environmental sustainability**	**Eco-label**
Criteria 1	Nation-wide scope				
Criteria 2	Formally adopted				
Criteria 3	Governmental program	Body that addresses the whole range of environmental issues	Nationally defined minimum quota	In the official national constitution on how environmental sustainability is to be included in national governance	Voluntary
Criteria 4	Mid-and long term environmental goals	Works on the preparation of environmental decisions, regulations and laws			Based on multiple criteria
Criteria 5	Concrete objectives	Works on the implementation of environmental decisions, regulations and laws			Third party awards it
Criteria 6	Way the objectives will be implemented	Representative of domestic environmental issues on international level			Focus on a product being preferable because it is based in life cycle considerations
Criteria 7	Review mechanism				

8.3 Annex 3: Country selection with criteria

	Partnership with EU/ neighbourhood action plans	**Bilateral trade (imports from EU/ exports to EU)**	**GDP/capita (in US dollar)**	**CO2 emission**	**Environmental sustainability index (rank/score)**	**Region**
Algeria	1995/ No	I: 55,4% E: 50,0%	5,433	2.28009	96	Maghreb
Egypt	1995/ Yes	I: 33,0% E: 37,7%	3,435	1.64027	115	Mashreq
Israel	1995/ Yes	I: 34,9% E: 29,3% (2)	17,300	9.99186	62	Mashreq
Jordan	**1995/ Yes**	**I: 26,0% E: 6,0% (6)**	**3,756**	**2.69712**	**84/47.8**	**Mashreq**
Lebanon	1995/ Yes	I: 37,6% E: 12,0% (3)	4,412	4.06937	129	Mashreq
Morocco	**1995/ Yes**	**I: 58,2% E: 57,2%**	**3,489**	**1.01559**	**105/ 44.8**	**Maghreb**
Occupied Palestinian Territory	1995/ Yes	I: ? E: ?	1,485 (UNdata, 2009)	0.20000 (UN, 2007)	/	Mashreq
Syria	**1995/ No**	**I: 20,0% E: 27,9% (2)**	**3,109**	**2.80000 (Population Reference Bureau, 2007)**	**117/ 43.8**	**Mashreq**
Tunisia	**1995/ Yes**	**I: 67,9% E: 73,5%**	**6,160**	**2.00289**	**55/ 51.8**	**Maghreb**