



WHAT IS MAINSTREAMING CLIMATE CHANGE IN THEORY?

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Abstract

The cross cutting nature of climate change has raised the need to use the mainstreaming approach to deal with the problem in a structural way. Although there is not a common definition about what mainstreaming is in the field of climate change, there is a common understanding that it is a concept that moves climate change from marginal discourse and puts it in the centre of a discussion to redesign policies, legal frameworks and to re-think the operation of institutions, investments and all the relevant processes for climate action across the sectors, including governmental and non governmental actors. Mainstreaming however is not the same as integration; since the latter implies a check-list of actions while mainstreaming aims to re-design and re-plan actions under the lens of climate change, that is a present and a future issue. To achieve climate change mainstreaming there are challenges and limitations, and it not an easy task, the reason why some scholars suggest that the term has been used too loosely in many context, such as in some countries or entities that are claiming to be mainstreaming climate change but are taking decisions that go in the opposite direction of climate goals. In that sense, in order to work towards mainstreaming either as goal or as a process it is important to have a better idea of what mainstreaming is in theory, and to translate it better in practice, which could be useful to comply with international goals such those set by the Paris Agreement.

Introduction

As a global problem climate change has been studied in different areas and fields. Its cross-cutting characteristics have been raising the awareness about the importance to treat it as a structural problem beyond the environmental sector, since scholars recognized that it is an economic, social and cultural problem. Based on this recognition of the multi-sector causes and the multi sector effects of climate change there is a growing call for the need to “mainstream” climate change into planning processes, investment plans, governmental institutions, public policies and in many other areas of the social, political and economic life.

Mainstreaming is a concept that has been used in different fields particularly in development, feminism (Council of Europe, 1998; Daly, 2005; Schalatek, 2009), and disasters risk reduction studies (Benson, 2007; Tearfund, 2005), and in recent years it has been applied in the climate change field. As a concept, mainstreaming brings marginal, sectorial issues into the centre of discussions, attracting more political attention, economic resources



and intellectual capacities (Gupta and Van Der Grijp, 2014). Nevertheless is not clear, what mainstreaming climate change means in theory?

This question becomes relevant in the context of the Paris Agreement after more than 170 countries signed it and more than 180 have submitted their national determined contributions (UNFCCC, 2015), where many countries are claiming to be mainstreaming climate change in order to comply with the mitigation and adaptation commitments adopted, such as Mexico (PECC, 2009). As well as other international organization that have claimed that since the action of the state is insufficient to deal with the problem they are willing to mainstream climate change to support the actions at the international level such as the multilateral development banks (MDB, 2015). Nevertheless, there is not clear what they mean by mainstreaming climate change or if they have the same understanding about what mainstreaming is. Even more challenging is to understand, how they are going to achieve this in order to comply with their commitments?

Given that the mainstreaming literature offers a path to deal with climate change in a structural way, this paper aims to contribute to the theoretical understanding about what mainstreaming is in the climate change field, what are its characteristics and differences with other concepts and what is needed to get there. In order to do so, this paper starts providing a context that can explain why mainstreaming has been proposed to deal with climate change. Then a number of definitions found in the literature (academic and non academic) will be analysed to find the common elements and the main differences among them, particularly the differences with concepts provided in the policy integration literature. After that an example of how the mainstreaming concept has been applied in practice will be analysed to understand if there is coherence between the concept in theory and in practice. Finally the paper will discuss what is mainstreaming climate change in theory.

This paper is part of a broader research about mainstreaming climate change into public finance in emerging economies that aims to explore under what conditions these economies are willing to invest public resources through their public expenditures to deal with climate change, given that international flows might not be enough to cover the costs produced by the problem and the costs needed to solve it. This is relevant due to emerging economies play a major role in the emission of greenhouse gases at the global level but at the same time they are highly vulnerable countries (Stern, 2009).

The paper nevertheless is not assessing if mainstreaming is good or not, or if is it useful or not in practice. This debate can be discussed in a couple of years when the current research ends, for now the paper remains in the

field of the conceptual analysis of what current literature (academic and non-academic) says about mainstreaming climate change to identify concepts, challenges and limitations of the approach. This is with the objective of contributing to the theoretical and eventually to the practical debate of mainstreaming in the field of climate change.

Mainstreaming climate change: the context

Climate change is considered one of the biggest threats that humanity is facing, according to Ban Ki Moon, the General Secretary of the United Nations (UN, 2009). As a global problem climate change has been treated in different levels and fields over time. It started as a specific area issue within the environmental sector, and began gaining attention in different sectors when the assessment of the Intergovernmental Panel of Climate Change (IPCC) showed that the greenhouse gases emissions come from many different sectors of society that demand mitigation actions, such as energy, transport, forest, among others, as well as when it was demonstrated that the effects of the problem could affect a wide range of sectors such as water, food security, and health, which require adaptation measures (Gupta and Van Der Grijp, 2014).

In this sense, since climate change “involves complex interactions between climatic, environmental, economic, political, institutional, social and technological process” (IPCC-3, 2001: 78), its treatment has been handled both at the international level and the national. This multi-level perspective points out that in order to deal with the problem it is necessary to have a broader number of sectors and actors involved, since at the beginning of the international discussions climate change was seen as “an abstract global future problem with a technocratic nature” (Gupta and Van Der Grijp, 2014: 9) where the state was the only actor taking decisions. However, even though the role of the state remains central there is a call for the participation of a bigger group of non-governmental actors to deal with the problem (Gupta, 2007).

Regarding the sectors, climate change has been also studied in different fields, such as the economic field, as according to Nicholas Stern climate change is the biggest market failure, a product of the economic model that does not internalize social and environmental externalities produced by activities such as fossil fuels exploitation and consumption (Stern, 2009). On the other hand, climate change has also been analysed from other perspectives such as human rights where scholars are debating the necessity to analyse not only the causes but

the effects that the problem is having in society given that it will limit the access to important resources such as water, fertile soil, food and others that are needed to ensure the rights of humanity (AIDA, 2014).

This cross-cutting perspective was included in the Paris Agreement where it not only recognized the relationship of the problem with human rights and gender equity, but also where three important goals were established. The Paris Agreement aims to strengthen the global response to the threat of climate change in the context of sustainable development and efforts to eradicate poverty. Firstly, by “holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels”, that requires the reduction of emission in several sectors such as the energy, transport, forest, among other, as the IPCC pointed out (Paris Agreement, Article 2, 2015). Secondly, by “increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production”; that requires the participation and coordination among different sectors and actors. Thirdly, by “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development”, that requires that all the financial flows work consistently with climate change objectives (Paris Agreement, Article 2, 2015).

This relationship between climate change and multiple actors and sectors has been studied in the last decades raising the necessity to “mainstream” climate change, but what does mainstreaming climate change mean?

Climate change mainstreaming: the concepts

As a noun mainstream “is the prevailing current of thought, influence or activity”; as an adjective is “representing the prevalent attitudes, values and practise of a society or group” (Dictionary by Farlex, 2016). Gupta and Van Der Grijp point out that mainstreaming “is a concept that brings marginal, sectorial issues into the centre of discussions, thereby attracting more political attention, economic resources and intellectual capacities” (2014, p: 67).

Mainstreaming is not a new concept, but it has become increasingly popular since the late 1990s as a means to tackle development issues such as gender inequality, environmental degradation, risk management and HIV/AIDS in a more effect way in the developing world (UNDP, 2010: 12; ODI, 2011). Elsey, *et al* mention that the idea was that these cross-cutting issues should influence the ‘mainstream’ activities of development rather than being addressed in separate initiatives (ODI, 2011). In recent year the word mainstreaming has been used in the climate



change field due the evolving cross-cutting nature of climate change but the literature shows that the way that this word has been used varies from one entity to another.

In order to understand how this concept has been used in the climate change field, a number of documents both academic (which is limited) and non-academic (focused on the work of practitioners) were analysed. The analysis of different concepts, which does not represent an exhaustive but rather an indicative list, brings six key findings:

1) There is not a common definition of what mainstreaming climate change is, but in essence all the references agree in that the purpose is to put climate change in a central level in the decision making process cycle. According to Olhoff, and Schaer, there is no universally agreed definition of the climate change mainstreaming concept. The authors point out that most definitions refer to mainstreaming as a process and that the components of and entry points to mainstreaming will depend on the level that is under consideration (UNDP, 2010: 11).

Waldick *et al*, from the International Institute for Sustainable Development (IISD) point out that “mainstreaming is currently regarded as an innovative instrument replacing stronger— and often ineffective—mechanisms of coordination” (IISD, 2008), and that is an “effective tool to enhance policy development by increasing sectorial policy coherence, addressing trade-offs between different sectorial objectives and capturing the opportunities for synergistic results in a way that will meet social, economic and environmental priorities” (Kok & de Coninck, 2007, Waldick *et al*, 2015:6).

Regarding the purpose of mainstreaming, Waldick *et al* point out that one objective of mainstreaming is, “to prevent harmful events where possible by encouraging adaptive planning to be anticipatory rather than reactionary. In practice, mainstreaming is an on going requirement of planning and policy processes. The use of an adaptive planning cycle helps to ensure these considerations by being a planned, iterative, knowledge-generating circuit”. (2015: 38-39).

The United Nations Environmental Program (UNEP) and the United National Development Program (UNDP) also see mainstreaming as a process, defining that mainstreaming climate change adaptation “as the iterative process of integrating considerations of climate change adaptation into policy-making, budgeting, implementation and monitoring processes at national, sector and subnational levels. It is a multi-year, multi-stakeholder effort grounded in the contribution of climate change adaptation to human well-being, pro-poor economic growth, and



achievement of the development goals. It entails working with a range of government and non-governmental actors, and other actors in the development field” (2009: 6). According to them “the process of mainstreaming requires a well-thought-out and carefully planned strategy demonstrating strong technical knowledge of the impacts of climate change (National Communications Support Programme, UNDP, UNEP, 2016).

2) Another key finding is that climate change mainstreaming and integration are often used as the same concept, but it will be discuss that in theory they are not the same. For instance, the United States Development Agency says that mainstreaming means integrating climate concerns and adaptation responses into relevant policies, plans, programs, and projects at the national, sub-national, and local scales” (USAID 2009: 47).

Klein *et al*, mention as well that “mainstreaming involves the integration of policies and measures that address climate change into development planning and on-going sectorial decision-making, so as to ensure the long-term sustainability of investments as well as to reduce the sensitivity of development activities to both today's and tomorrow's climate” (Klein et al, 2007:9).

The Food and Agriculture Organization also used the term as a synonym of integrations saying “in order for climate change adaptation and mitigation to be sustainable and applicable on a wide scale, it must be incorporated, integrated or ‘mainstreamed’ into the policy apparatus of governments” (FAO, 2009). The UNDP also uses as a synonym when referring to mainstreaming, they say that integration should become a systematic process rather than a one-off process of utilizing climate information in decisions (UNDP, 2009; UNDP, 2012)

3) On the other hand, it was analysed that climate change mainstreaming implies a level of additionality in the action. Although it starts considering the existent policies, it aims to re-think and act differently. Ravindranth *et al*, from the London School of Economics and Political Science (LSE), say that mainstreaming is the incorporation of climate change considerations into established or on-going policies, development programmes, policies or management strategies, rather than developing climate adaptation and mitigation initiatives separately (LSE, 2010). Nevertheless Gupta and Van Grij suggest that climate change mainstreaming aims to re-think and re-planning actions under the climate change lens, which according to the authors is much more difficult because implies additional actions and efforts (Gupta and Van Der Grijp, 2014).

On the other hand, 4) it was identified that climate change mainstreaming has been analysed mainly in the development agenda. According to the IPCC, mainstreaming means that development policies, programmes and/or individual actions that otherwise would not have taken climate change mitigation into consideration



explicitly include these when making development choices and that this makes development more sustainable (IPPC, 2015). ODI points out that the idea of mainstreaming has been described as an ‘holistic’ or ‘development-first’ approach, whereby adaptation and mitigation objectives are integrated within development agendas (ODI, 2011).

In that context, 5) it was also identified that most of the references that exist about climate change mainstreaming refer to the adaptation side of climate agenda because of the relationship between adaptation and development. Waldick *et al*, point out that the need to integrate or mainstream climate change in the case of adaptation into development planning is necessary for different reasons, but particularly for the scientific evidence on climate variability and change, the observed current and projected future impacts of climate variability and change on natural as well as socioeconomic systems and the increasing knowledge and wealth of studies on how such impacts may jeopardize the results and impacts of many development efforts and further compromise the achievement of key development goals (Waldick *et al*, 2015).

Mizan Khan and Tim Foy, say that the most effective way to address climate adaptation issues is through the integration of responses into general development process. The authors point out that if climate issues are taken seriously and appear on the big screen then there will be policy level responses and that adaptation approaches will be consist with broader development objectives, and not inadvertently reduce effectiveness of development processes (UNFCCC, 2015).

The OECD points out that “mainstreaming” is the integration of climate change adaptation responses into development so as to reduce potential development risks and take advantage of opportunities and that the objective is for adaptation measures to be implemented “as part of a broader suite of measures within existing development processes and decision cycles” (OECD 2009: 56). Which means that OCDE also refers to mainstreaming as an integration action.

According to OECD, applying a climate lens involves examining policies, strategies, plans or programmes to determine: The vulnerability to climate risks; the extent to which climate change risks have been taken into consideration in the formulation stage; whether the policy, strategy, regulation or plan could lead to increased vulnerability, or miss important opportunities arising from climate change, and what amendments might be warranted for pre-existing policies, strategies, regulations or plans in order to address climate risks and/or opportunities (2009:75).

6) Finally it was identify that mainstreaming climate change has helped to include the topic in new areas such as financial institutions. Recently the Multilateral Development Banks presented their five Voluntary Principles for Mainstreaming Climate Change to support and guide financial institutions moving forward in the process of adapting to and promoting climate smart development. According to them “mainstreaming” by definition implies a shift from financing climate activities in incremental ways, to making climate change both in terms of opportunities and risk a core consideration and ‘lens’ through which institutions deploy capital (MBD, 2015: viii).

At the same time, the Centre for International Governance Innovation points out that mainstreaming climate change into financial governance is an emerging area of policy research and practice and that “a better integration of climate-related risks across investment decisions can be a first step, given that climate change poses systemic risks that must be addressed” (CIGI, 2015: 7).

In general, it was useful to see how entities and organizations are using the term in their official communications. This helped to understand that even though there is not a unique definition, there is a common vision of what is the purpose of the mainstreaming approach in the area of climate change. In this sense, in order to discuss further the findings there will be analyse some of these key findings.

Mainstreaming climate change in the development agenda

The development agenda was the first in calling for a climate change mainstreaming process, as the linkages between development and climate are by now commonly recognized, particularly climate change adaption into development planning and decision-making processes that has gradually emerged (UNDP, 2010: 6). This relationship however has been developed with precaution given that developing countries wanted to keep a fine line, to avoid duplication of efforts, since the entities that work in the development agenda are not always the same that those working in the climate change issues and because they want to receive support, particularly financial support for both of them, that has not been happening in a balance way. In Latin America for instance, the amount of money flowing towards the development agenda has been decreasing in recent years, but the amount of resources related to climate issues has been increasing in contrast (CEPAL, 2014; ODI, 2015).

In this sense, Gupta and Van Der Grijp point out that the policy evolution on mainstreaming climate change has passed through three phases: “In the first phase in the 1990s climate change was seen more as a stand-alone issue. In the second phase towards the end of the 1990s policy-makers and scholars made the link with



development issues, and aid agencies began exploring the potential of mainstreaming climate change into development cooperation. In the third phase a policy process was launched to implement this in multilateral as well as bilateral aid, and mainstreaming increasingly came to be seen as “good development practice” (2014: 68).

According to the authors climate change is seen as a global problem that will impact or intensify development problems such as poverty, because “the poorest countries and communities are likely to suffer the most because of their geographical location, low incomes, and low institutional capacity, as well as their greater reliance on climate-sensitive sectors like agriculture” (2014: 10). In this sense the authors consider that climate change has been shifted and that now it is more seen as a development problem. The UNDP claims “climate change is the defining development issue of our generation” (2014: 10).

In this sense climate change has a relationship with development but particularly with sustainable development. Development is the process by which society enhances its social, economic and natural resource capital, while sustainable development aims to meet the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). This relationship was diffuse even in the context of the Millennium Development Goals agreed in 2000, but with the establishment of the new Sustainable Development Goals and the inclusion of climate change as the 13th goal, there is a clear relationship with the development agenda.

In the past, one of the principles set up in the sustainable development agenda to guide policy-making was the environmental policy integration (EPI) that refers to “the integration of environmental aspects and policy objectives into sector policies such as energy and agricultural policy” (Persson, 2004: 1). The author refers that the EPI was one of the key messages included in the Brundtland report (WCED, 1987:313) to guide not only the decision making process, but also the investments at the global level.

Policy integration was at that stage an important approach to include environmental conditions within other policies and sectors and since then most of the international organizations use the integration and mainstreaming concepts in the same way. Nevertheless there are elements that can differentiate them.

According to Gupta and Van Der Grijp the main difference between mainstreaming and integration is that integration “is often achieved through check-list” while mainstreaming calls for using a climate change lens to study and design mainstreaming as an end or as a process (Gupta and Van Der Grijp, 2014:75). For instance the



environmental mainstreaming requires a conceptual shift that identifies environmental sustainability as an objective of the development process, rather than focusing on compliance with environmental standards as a side condition to the achievement of other objectives (Gupta and Van Der Grijp, 2014: 76).

Gupta and Van Der Grijp write that mainstreaming “is a political and ideological concept that moves climate change from a marginal discourse and puts it in the centre of discussion to redesign other issues, whereas integration is a policy discourse and tool to ensure coherence between sectorial activities and hierarchical activities at centralized and decentralized levels” (2014: 79). For that reason the authors point out that the term mainstreaming has been used “loosely” in climate discussions. According to the authors, mainstreaming is the last in the stages of incorporating climate change into policy processes, since often implies reorganization and redesign of development policies from a climate change perspective which is much more difficult to achieve given that it calls for major structural shift society, (2014: 77).

In the case of climate mainstreaming according to Gupta and Van Der Grijp, referring to climate mainstreaming into the development agenda is “the process by which development policies, programmes, and projects are (re) designed, (re) organized, and evaluated from the perspective of climate change mitigation and adaptation”... “Mainstreaming implies involving all social actors-governments, civil society, industry and local communities- in the process. In that sense mainstreaming calls for changes in policy as far upstream as possible” (2014: 77). This indicates that while integration refers to the inclusion of climate change into pre-existent policies, mainstreaming aims to build policies with a climate change lens, which implies a more structural change, this is taking climate change into account from the earliest moment of decision-making process.

For the authors there are five stages that have to be in place in order to achieve mainstreaming: 1) The search of ad-hoc pilot projects and approaches that aim to reduce emissions or enhance adaptation; 2) A more systematic search for win-win solutions that simultaneously deal with climate change and development goals; 3) All policies, programmes and projects are subjected to climate proofing to ensure that they are resilient with respect to the impacts of climate change; 4) All policies, programs and projects are subjected to GHG-emission screening to ensure that these emissions are taken into account in project design (mitigation integration); and 5) A climate made upstream (Gupta and Van Der Grijp, 2014: 77).

Interestingly this description of the stages is similar in the EPI analysis that Persson proposes, referring to the stages to achieve EPI involving: (1) A more integrated decision-making process, (2) Improvement of underlying

conditions such as effective implementation and enforcement, (3) Specific environmentally integrated policy outputs such as policy instruments that improve both economic efficiency and environmental quality and (4) Improvement of data and analytical input to the policy-making process such as integrated accounts (2004: 3-4). Nevertheless the EPI approach does not necessary suggest putting the environmental problem in the centre of the agenda, but rather including it in pre-existing policies.

As well as how Persson sees EPI, Gupta and Van Der Grijp see mainstreaming as a goal or as a process. Mainstreaming as a goal aims to ensure that the key item to be mainstreamed is effectively determining the normative, substantive, and procedural aspects of development. Mainstreaming as a process focuses more on how the relevant procedures can be improved-designed to ensure that its goal can be achieved.

Even though the similarities that the EPI presents regarding the mainstreaming approach are important, one of the key differences is that the EPI aims to include only environmental aspects, whereas climate change has been recognized as not only an environmental problem but as economic, social, political and cultural one, which makes the task more difficult. At the same time, integration refers to the inclusion of climate change into pre-existent policies, while mainstreaming aims to build policies with a climate change lens, from the earliest moment of decision-making process. In this sense, to contribute to this debate, a new approach was born, Climate Policy Integration (CPI), which builds in the EPI fundamentals but aims to achieve the mainstreaming approach.

Climate policy integration and mainstreaming climate change

In recent years in the context of the EPI tradition a new approach has been suggested, which is Climate Policy Integration (CPI) approach. Although it is still a pre-review analysis it is important to analyse whether it is an alternative debate or if it is a way to call climate change mainstreaming.

According to Mickwitz *et al*, based on the definition of policy integration (Underdal, 1980) and the EPI definition made by Lafferty and Hovden (2003), CPI is “the incorporation of the aims of climate change mitigation and adaptation into all stages of policy-making in other policy sectors (non-environmental as well as environmental); complemented by an attempt to aggregate expected consequences for climate change mitigation and adaptation into an overall evaluation of policy, and a commitment to minimise contradictions between climate policies and other policies” (2009: 19).



The authors point out that the CPI can be divided into horizontal policy integration and vertical policy integration within and across governmental levels. The first one refers to cross-sectorial measures and procedures by the government, or a governmental body, “in order to mainstream or bring about a comprehensive integration of climate change mitigation and adaptation aims into public policies” (2009: 21), including broad climate change strategies and the integration of climate policies into the preparation and adoption of new regulations and the annual state budget. And the second refers to the integration of climate policies into a specific sector. It includes sector-specific strategies and decisions made at ministerial level, as well as the integration of climate policy into the strategies, measures and actions taken by different agencies under the supervision of a ministry (Mickwitz *et al*, 2009: 21-22).

The CPI also refers to the relevance of multi-level governance as a key element to ensure the integration of climate change. The multi-level governance according to Bache and Flinders (2004) “refers to the increasing interdependence of governments operating at different levels, while ‘governance’ signalled the growing interdependence between governments and non-governmental actors at various territorial levels” (Mickwitz *et al*, 2009: 25). In the case of the mainstreaming the multi-level governance analysis is also key as it occurs at various levels from local to regional and at global level and involves all actors (Gupta and Van Der Grijp, 2014).

In essence CPI shows similarities to the mainstreaming approach, however it uses both concepts integration and mainstreaming as synonyms, when most of the time refers to the inclusion of climate change into existing policies, but not necessary brings climate change to the centre of the decisions making process. Mickwitz *et al*, point out that the CPI is not a panacea but an approach that could help to analyse the problem in a cross cutting way (2009). In this sense, considering that the literature suggest a different levels of mainstreaming, it is possible to conclude that integration could be a first step of the mainstreaming process.

Following the stages suggested by Daly in her gender mainstreaming analysis, integration is the first step. The second one would be mainstreaming in the form of light transversality or mainstreaming light, while the full mainstreaming should be the third, that implies breadth and depth (Daly, 2004:439).

These two approaches are therefore two important steps that are complex in the practice, and probably what we know so far are attempts to integrate climate change, but not to mainstream which is a major challenge. In this sense the literature shows some key challenges and even some limitations of these approaches.

Challenges and limitations of climate change mainstreaming.

Climate policy integration and climate change mainstreaming are approaches that provide important opportunities to study climate change in a comprehensive way, however both approaches have challenges and limitation both as goals and as procedures.

Mainstreaming as the last step and integration as the first step require implementation mechanisms in terms of financing, measuring the impact of policies and requires a continual follow up, which calls for a persistent capacity building process at various levels. According to UNDP-UNEP “institutionalizing mainstreaming—in particular by making mainstreaming a standard practice (e.g. mandates, coordination mechanisms and procedures)—is critical for the sustainability of such work”. In order to have that, political will is required (2009: 12-13).

According to Gupta and Van Der Grijp there are three key challenges to achieve climate change mainstreaming: 1) The creation of losers and winners, since for developing countries climate change mainstreaming could be a bottleneck to immediate economic growth, since it will be necessary to leapfrog the type of development that helped rich countries to increase their wellness in the past what is not possible in all the cases (Perkins, 2003); 2) the lack of knowledge and capacity to incorporate mitigation and adaptation options because mainstreaming requires high levels of coordination and coherence of organizations and their policies, which can also produce losers since lots of developing countries can find difficult to achieve this goal; and 3) the lack of coherence or compatibility among policies, in the adaption side for instance there is a challenge to face not only the response to climate variability but the impacts as well; in the mitigation side the challenge is the continued investment in fossil fuels or other activities that can be harmful but that are development priorities in these countries, which happens in most of the countries (Gupta and Van Der Grijp, 2014).

In this sense it is necessary to have a comprehensive planning process under a climate change lens. In order to achieve that it is necessary to make this issue central not only of the environmental ministries but it is critical to have institutions that deal with economy wide issues such as the planning or the finance ministry. In the same line, one critical part of the process is to engage other sectors and subnational bodies, thinking always in the links between the national and subnational processes, considering that the subnational level is most of the time more vulnerable but also is where more actions can take place. This requires an important level of engagement of a broad range of stakeholders at all levels.



Major challenges are the availability and quality of climate information about costs and impacts of the problem, as well as information about socio-economic linkages between climate change, vulnerability, adaptation and development; availability of resources and commitment to support continuous capacity building and institutional strengthening; existence of and possibility for technical support; and a combination of ‘top-down’ and ‘bottom-up’ approaches (UNDP, 2010: 12).

Mainstreaming as a goal is a difficult task to achieve, but as a process it is necessary to build the route towards the goal. As it was observed mainstreaming and integration are not the same and the thin line between them could make the difference between a structural and a discursive attempt to solve climate change.

Climate change is a long-term issue whose consequences are not fully visible yet, a reason why it is necessary to manage the risks and take decisions under the precautionary principle with limited and/ or imperfect information. The uncertainty is not conducive to decision-making on the part of political leaders or government officials whose mandates and terms are shorter and who are concerned with political cycles (UNEP, 2009: 12-13).

Regarding the limitations the literature points out two mainly: The first one is referring to the technocratic approach of integration. There is a recognition that the main difference between climate policy integration and mainstreaming climate change is that the first is primarily focused on the action of the state (Jordan and Lenschow, 2010; Adelle and Russel, 2012), and even though it recognizes the existence of other actors it refers mainly to the action of the government, while the mainstreaming approach recognizes the necessity to include all actors at all levels from the beginning (Lemos and Agrawal, 2006).

Nevertheless there are also critics towards the mainstreaming approach as it builds in the role of the state and its institutions as well, which has been criticized for being technocratic, because according to green theorists, this is not necessary the solution because are these institutions the ones that are creating environmental problems (Eckersley, 2010: 258).

Another limitation is referring to the diffuse treatment of mainstreaming, as the idea is to include climate change along the planning process at different levels and actors, there is a concern of leave without specific control the action of specific entities. This is, if all the entities have to deal with the problem, which one of them has to be in charge of tracking such compliance?

Although the literature review showed that integration as the first step and mainstreaming as the last one, require to deal with climate change in a more structural way, there are needed more practical and successful examples to assess the best practices. In order to contribute with the debate, it will be discussed a case study to analyse the practical difficulties to assess if a country is or no mainstreaming climate change as a goal or as a process.

Mainstreaming climate change in practice: the case of Mexico

There are practical examples that can be studied to understand to what extent countries are mainstreaming climate change. In the context of the development agenda, European countries were the first talking about mainstreaming climate change, tendency that has been adopted in other countries including developing countries such as Mexico. This paper analyses the case of this country that has claimed to be mainstreaming climate change in its national planning but that also presents contradictions in its decisions.

Mexico is according to the International Monetary Fund an emerging economy that has been seen as a progressive country in the context of climate change (IMF, 2015). In 2010 Mexico hosted the Conference of the Parties (COP16) of the UNFCCC that was considered as a success after the called failure of the COP15 in Copenhagen, as the Mexican diplomats helped to build trust in the UNFCCC process (Jacobs, 2010). Since 2002 Mexico has been building policies related to climate change, but the COP16 led to the creation of the General Climate Change Law, proposed in 2010 and approved in 2012, that has lead to climate change mainstreaming process according to the Foreign Affairs Ministry (OCDE, 2016)

The law was the first step to strengthening the policies and institutional arrangements that existed before. The law mandates the consolidation of these arrangements but also to strengthen them and to take them to the subnational level. For instance there was an inter-ministerial commission for climate change where seven ministries participated. After the approval of the law there was the inclusion of more ministries, arriving to the number of 13 ministries involved, as well as the National Institute of Ecology that became the National Institute of Ecology and Climate Change (INECC) (PECC, 2014).

The Special Programme of Climate Change (PECC-2009-2012, *Programa Especial de Cambio Climático in spanish*), was one of the existing instruments that was strengthen with the law. In the PECC Mexico recognizes that



“tackling climate change requires the immediate development of activities that mitigate or reduce greenhouse gas (GHG) emissions, and of others aimed at adaptation or reduction of vulnerability and of risk to human life, nature, and economic development. The effectiveness of these activities increases significantly when various sectors converge in a cross-cutting, mainstreaming policy strategy” (PECC, 2009:3). In formulating the PECC, four essential components were considered for the development of an integrated policy to tackle climate change: Long-term vision, Mitigation, Adaptation, and Policy mainstreaming. The last component points out:

“Assuring intersectoral and inter-institutional coordination through policy mainstreaming is essential, as is promoting actions in areas such as the economics of climate change, education, training and research, as well as information and communication. To effectively deal with climate change, priorities must be set at the highest level of all tiers of government with regard to public policy on mitigation and adaptation, with the active participation of civil society. This Program includes some activities on the interface of Federal Government and State or Local Government responsibility, and/or that of the private sector. It may be anticipated that mobilizing state and municipal governments, as well as civil society -particularly the private sector-, will allow the scope of the PECC to be expanded” (PECC, 2009:9).

At the same time, the PECC reflects the goals that the country adopted in the international community, such as the reduction of 50% of its emissions by 2050 (commitment adopted in 2010) and 30% by 2020 (commitment adopted in 2008), as well as a specific commitment to produce 35% of its energy with clean energy by 2024. These goals were also included in the Law.

Besides that in 2012, Mexico created an annex in the national budget where the different institutions from the federal government can establish how much money they spent to deal with climate change through the public expenditure, which is part of a mandate that established the Law regarding the obligation to allocate public finance to comply with the goals mentioned above (SHCP, 2012).

On the other hand as a result of the leadership that Mexico has in the international level the country has managed to capture international climate support, being the second main destination of climate finance in Latin America (ODI, 2014). But at the same time Mexico is promoting the cooperation in climate related issues, being the first Latin American country in offering 10 million USD for the Green Climate Fund in the context of climate summit hosted by the United Nations in September of 2014 (Peña, 2014).



These actions show an attempt to mainstream climate change according to the criteria used by Daly to measure to what extent countries have mainstreamed gender equity: 1) Existence of specific policies or programs to deal with the problem; 2) Existence of dedicated institutions and 3) Existence of legal framework to deal with the problem (Daly, 2005).

On the other hand however, there are other political reforms that have taken place in the country that suggest opposite goals to those established in climate policy. In 2014 Mexico approved an energy reform that allows private investment in the hydrocarbons industry, which incentivises the extraction and production of fossil fuel resources including non-conventional resources such as shale gas (SENER, 2014).

This is relevant since the energy sector dependent on fossil fuels produces the 67.3% of the national GHG emissions, a considerable amount considering that Mexico is part of the 20th major emitters of GHG in the world, contributing to 1.6% of the emissions (PECC, 2009). These emissions could be reduced through renewable energy since Mexico has a huge potential to satisfy the demand with renewable sources, which projects increased in number before the reform (SE, 2013). Although the actual impact of the reform will be measured accurately in some years the reform itself has produced an uncertainty about the renewable energy market in the country.

This scenario where Mexico shows strong policies on climate change but at the same time strong policies to produce fossil fuels brings the question to what extent Mexico is mainstreaming climate change or what the entities understand by mainstreaming. Is it clear that mainstreaming climate change is challenging, and what is happening in Mexico illustrates the third challenge identified by Gupta and Van Der Grijp about the lack of coherence or compatibility among policies. The question that remains in this case is, is Mexico mainstreaming climate change or it remains in the integrating process in certain sectors but not in the whole planning process? If so, is the country willing to mainstream climate change as a goal and under what conditions?

These questions are relevant because Mexico is a country that has been seen as a proactive and progressive country in the context of climate change, where the country has claimed to be mainstreaming climate change, which has been given recognition in the international community. However, to what extent mainstreaming climate change is compatible in theory and in the practice in Mexico?

In conclusion, what then is mainstreaming climate change in theory and in practice?

The nature of climate change has called for a different way to approach the problem, going from the abstract and individual problem to a cross cutting and multilevel governance problem that requires the attention of different actors and sectors. This tendency has also called for the attention of the problem in a structural way, which scholars called mainstreaming climate change.

A critical review of the literature about climate change mainstreaming concepts brought six key findings: 1) There is not a common definition of what mainstreaming climate change is, but in essence all the references agree in its purpose to put climate change in a central level in the decision making process cycle; 2) another key finding is that climate change mainstreaming and integration are often used as the same concept, but in theory are not the same; it was analysed that the main difference between mainstreaming and integration is that integration is often achieved through check-list and refers only to the inclusion of climate elements into existing policies, while mainstreaming calls for using climate change lens to design policies from the beginning.

3) It was also identified that climate change mainstreaming implies a level of additionality in the action, which means that are not only business as usual actions but further and additional efforts; 4) It was identified that climate change mainstreaming has been analysed mainly in the development agenda; and that 5) most of the references that exist about climate change mainstreaming refer to the adaptation side of climate agenda because of the relationship between adaptation and development.

The reason why the development agenda had the need to mainstreamed climate change is due to the close relationship that exists between them, a relationship that was not clear in the context of the Millennium Development Goals but that is much clearer in the context of the new Sustainable Development Goals, agreed in 2015 where climate change was included as the goal number 13. Some scholars point out that climate change is the defining development issue of our generation and that it will increase development problems such as poverty, hunger and others, and that this is why it is important to see climate change as a cross-cutting issue. Finally, 6) it was identify that mainstreaming climate change has helped to include the topic in new areas such as financial institutions.



In that sense we can conclude that if mainstreaming “is a concept that brings marginal, sectorial issues into the centre of discussions, thereby attracting more political attention, economic resources and intellectual capacities”, then mainstreaming climate change in general is the concept that brings climate change into the centre of discussions thereby attracting more political attention, economic resources and intellectual capacities. Besides that climate change mainstreaming is a political and ideological concept that moves climate change from a marginal discourse and puts it in the centre of discussion to redesign policies, legal frameworks and to re-think the operation of institutions, investments and all sort of relevant processes across sectors and across governmental and non governmental actors.

Mainstreaming climate change is not only including as part of the existing policies a climate element, but re-thinking and re-designing actions and policies under the climate change lens which is much more difficult to achieve since it calls for major structural shift in society. Many countries in Europe and even in the developing world such as Mexico, have been working in the climate policy integration, which is a good start but if mainstreaming climate change is the goal, as a way to deal with the problem in a structural way, more changes have to be done at the different levels of government and at the different levels of the society.

Mainstreaming calls for a more comprehensive way to see climate change, not only as a problem but perhaps as a way to live in the future years. For that reason some scholars suggest that those that claim to be mainstreaming climate change are using loosely this concept without thinking in the implication of what they are actually doing.

To achieve mainstreaming climate change as the last step and the integration as the first there are different challenges and both approaches also have limitations. Some of the key challenges are related to the creation of losers and winners, because mainstreaming climate change can be a bottleneck to immediate economic growth; the lack of knowledge and capacity to incorporate mitigation and adaptation options because mainstreaming requires high levels of coordination and coherence of organizations and their policies; the lack of coherence or compatibility among policies because mainstreaming climate change implies that climate change becomes the priority which cannot be consistent with contraire actions such as the fossil fuel investments. Some countries have claimed to be mainstreaming climate change, such as Mexico, nevertheless they have developed actions that go in the opposite direction of climate policy, what questions the coherence of the mainstreaming climate change concept in theory and practice.

Regarding the limitations integration and even mainstreaming are seen as technocratic perspectives focus in the action of the state. Nevertheless the mainstreaming approach claims that in order to achieve such process or goal the action of several actors governmental and non governmental is needed.

This becomes relevant in the context of the compliance of the intended national determined contributions and in the context of the Paris Agreement itself that requires collective actions and structural changes to comply with the Convention and to stabilize the temperature in no more than 2°C.

In this sense, there still remain questions about the usefulness of the mainstreaming approach as a goal and as process; as well as questions regarding the feasibility of achieving mainstreaming, but particularly further research has to be done in the practical analysis of the mainstreaming climate change as process and as a goal. It is important to analyse the actual processes that are taking place in those countries and entities that are claiming to be mainstreaming climate change to understand if they are achieving the actual mainstreaming goal in the whole cycle of planning, including public expenditure allocation, cutting the activities that produce the problem such as fossil fuels public investments. Or, to what extent countries are claiming to be mainstreaming climate change as a discourse but not as a practice. And if so, to what extent they are willing to mainstream climate change to comply with their intended national determined contributions.

Some of these questions might be answered in the next paper that aims to analyse under what conditions emerging economies mainstream climate change in their public expenditure as a way to comply with international goals established in the UNFCCC and how this will be useful to comply with the new goals set in the Paris Agreement including making financial flows compatible with the low greenhouse gases and resilient development.



Bibliography:

- Adelle, C. and Russel, D., (2013). *Climate Policy Integration: a case of déjà vu?*. Environmental Policy and Governance, Published online in Wiley online Library.
- Ahmad, I. H. (2009). *Climate policy integration: Towards operationalization*. DESA Working Paper 73. New York, UN Division of Economic and Social Affairs: 18 pp. http://www.un.org/esa/desa/papers/2009/wp73_2009.pdf
- Barrett, S. and Toman, M. (2010). *Contrasting Future Paths for an Evolving Global Climate Regime*. *Global Policy* 1(1): 64-74
- Bowen, A. and Fankhauser, S. (2011). *The Green Growth Narrative: Paradigm Shift or Just Spin?*. *Global Environmental Change* 21(4): 1157-1159
- CICC (2014). *Programa Especial de Cambio Climático, PECC*. SEMARNAT. Mexico
- Chaum, M., Faris, C., Wagner et al (2011). *Improving the effectiveness of climate finance: Key Lessons*. CPI, EDF, ODI, Brookings.
- Clapp Jennifer and Peter Dauvergne (2011). *Paths to a Green world, The Political Economy of the Global Environment*. Second Edition, MIT
- CIGI (2015) *Mainstreaming Climate Change into Financial Governance: Rationale and Entry Points*. available in https://issuu.com/cigi/docs/fixing_climate_governance_pb_no5
- Coté Marjolaine, Teixeira, Sérgio (2012). *Mainstreaming climate change in National Development Processes and UN Country Programming. A guide to assist UN Country Teams in integrating climate change risks and opportunities*. PNUD-AECID. Available in <https://www.cbd.int/financial/climatechange/g-climateplanning-undp.pdf>
- Council of Europe (1998). *Gender mainstreaming: conceptual framework, methodology and conceptualization of existing practices*. Strasbourg: Council of Europe.
- Daly Mary (2005). *Gender Mainstreaming in theory and practice*. Oxford University Press. P. 433-450
- De la Torre, A., Fajnsylber P., Nash J., (2010). *Low-carbon development. Latin America responses to climate change*. World Bank Latin American and Caribbean Studies. The World Bank. 200 pp.
- Eckersley, Robyn (2004). *The Green State. Rethinking Democracy and Sovereignty*. The MIT Press.

- European Commission, *Climate Policy Mainstreaming*, http://ec.europa.eu/clima/policies/brief/mainstreaming/index_en.htm
- Gupta, J. (ed.) (2007). *Special Issue on The Multi-Level Governance Challenge of Climate Change*. Environmental Sciences 4(3): 131-137
- Gupta, Joyeeta and Van Der Grijp, Nicolien (2010). *Mainstreaming climate change in development cooperation. Theory, practice and implications for the European Union*. Cambridge University Press. 347 pp.
- Hicks, R. L., Parks, B. C. et al. (2008). *Greening Aid? Understanding the Environmental Impact of Development Assistance*. Oxford: Oxford University Press.
- Huitema, D., et al (2011). *The evaluation of climate policy: theory and emerging practice in Europe*. Springer.
- IPCC (2007) *Mainstreaming climate change into development choices: Setting priorities*, available in https://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch12-ens12-2-4-6.html
- Jacobs, M. (2010). *Copenhagen was not a (complete) failure. Inside Story*.
- Jacobs, M. (2010). *Cancun: the glass half full'. Inside Story*.
- Keohane, R. O. and Victor, D. G. (2011). *The Regime Complex for Climate Change*. Perspectives on Politics 9(01): 7-23
- Khan, Mizan and Foy Tim, *Mainstreaming climate change UNFCCC*
- King, P. (2010). *Mainstreaming climate change into national development planning: A training manual, South Pacific Regional Environment Programme*, 27 pp. http://www.sprep.org/att/publication/000848_Mainstreaming_Training_Module_PACC_Project.pdf
- Lemos, M. C., and A. Agrawal (2006). *Environmental governance*. Annual Review of Environment and Resources, 31 (1): 297-325.
- Meadows, D. et al. (1972). *The Limits to Growth*. New York: Universe Books.
- Mearns R., and Norton A., Editor (2010). *Social dimensions of Climate change, equity and vulnerability in a warming world*. New frontiers of social policy. The World Bank. Washington DC.
- Mickwitz, P., P. Kivimaa, et al. (2007). *Mainstreaming climate policy and policy coherence, Prime Minister's Office*, 75 pp. http://www.peer.eu/fileadmin/user_upload/publications/PEER_Report2.pdf
- Mickwitz, P., A. Francisco, et al. (2009). *Climate policy integration, coherence, and governance. PEER*. Report 2. Helsinki, Partnership for European Environmental Research: 96 pp. http://www.peer.eu/fileadmin/user_upload/publications/PEER_Report2.pdf

- Mitchell, T., T. Tanner, et al. (2006). *Overcoming the barriers: Mainstreaming climate change in developing countries*. Tearfund Climate Change Briefing Paper 1, Institute of Development Studies: 28 pp. <http://www.uneca.org/sdd/events/workshop091112/TEARFUND%20ON%20OVERCOMING%20BARRIERS%20-%20MAINSTREAMING%20CLIMATE%20CHANGE%20ADAPTATION.pdf>
- Multilateral Development Banks (2015), *Mainstreaming climate action within financial institutions. Emerging practices*. http://www.eib.org/attachments/fi_mainstreaming_epp_overview_en.pdf
- Nakhooda, S., et al (2014). *Climate finance: is it making a difference? A review of the effectiveness of multilateral climate funds*. Draft text. 29 pp.
- Oates, Naomi, Conway, Declan and Calow, Roger (2011). *The “mainstreaming” approach to climate change adaptation: insights from Ethiopia’s water sector*. Overseas Development Institute. Available in <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7056.pdf>
- OECD (2009). *Integrating climate change into development cooperation, Organization for Economic Cooperation and Development (OECD)*, 190 pp. <http://www.oecd.org/dataoecd/0/9/43652123.pdf>
- OCDE (2009). *Policy Guidance on Integrating Climate Change Adaptation into Development Co-operation*.
- OECD (2010). *Transition to a Low-Carbon Economy. Public goals and corporate practices*. Paris.
- Olhoff and C. Schaer (2010). *Screening Tools and Guidelines to Support the Mainstreaming of Climate Change Adaptation into Development Assistance – A Stocktaking Report*. UNDP: New York.
- Perkins, R. (2003a). *Environmental leapfrogging in developing countries: A critical assessment and reconstruction*. Natural Resources Forum 27, pp.177-188.
- Ravindranth, Darshini, Kumar, Rajiv, and Kattumuri, Ruth (NI). *Mainstreaming Adaptation to Climate Change in Indian Policy Planning*. London School of Economics and Political Science (LSE)
- Schalatek, L. (2009). *Gender and climate finance: Double mainstreaming for sustainable development*. Washington, D.C., Heinrich Böll Stiftung: The Green Political Foundation: 29 pp. http://www.uneca.org/acpc/resources/Gender-and-climate-change/DoubleMainstreaming_Final.pdf

- Stern, N. (2007). *The economics of climate change: The Stern review*. Cambridge, Cambridge University Press.
- Stern, N. (2009). *Blueprint for a Safer Planet: How to Manage Climate Change and Create a New Era of Progress and Prosperity*. London, The Bodley Head.
- Tearfund (2005). *Mainstreaming disaster risk management: A tool for Development Organizations*. Teddington: Tearfund.
- United Nations (1987). *Report of the World Commission on Environment and Development, Our Common Future*.
- UNDP, UNEP; GEF, national communications support programme, <http://ncsp.undp.org/topics/mainstreaming-climate-change>
- UNDP-UNEP Poverty- Environment Initiative, (2011) *Mainstreaming climate change adaptation into development planning: A guide for practitioners*, available in <http://www.unep.org/pdf/mainstreaming-cc-adaptation-web.pdf>
- UNFCCC (2015) *The Paris Agreement*, https://unfccc.int/paris_agreement/items/9485.php
- UNPEI (2007). *Guidance note on mainstreaming environment into national development planning*. Nairobi, UN Poverty - Environment Initiative: 8 pp. <http://www.unpei.org/PDF/Guidance - Note - Mainstreaming - eng.pdf>
- Waldick Ruth, et al, (2015) *Mainstreaming climate change. Integrated Landscape, assessment, decision-support process and tool kit. Guidebook to implementing the quantitative and qualitative aspects of the assessment*. IISD, OSU, Carleton University, Canada. The International Institute for Sustainable Development. Published by the International Institute for Sustainable Development.
- Wälti, S. (2010). *Multi-level environmental governance*. In H. Enderlein et al. (eds) *Handbook on Multi-level Governance* (Cheltenham: Edward Elgar), pp. 411-22