Chapter 5

State commitment to promoting public participation: The UNFCCC and citizens' roles in climate change politics

Anabela Carvalho, University of Minho, Portugal

Joyeeta Gupta, VU University Amsterdam, The Netherlands

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Introduction

Given the nature of climate change, there is no doubt that citizens need to engage with the issue at many different levels. On the one hand, changes in individual behavior are necessary in order to address the problem. On the other hand, and very importantly, citizen views are a fundamental basis for any policies and measures adopted by government and can lead to both political action and inaction. Most often such views are elicited through surveys and similar instruments for gathering and aggregating data on "public opinion". However, these proxies for the public sensibility on climate change are far from sufficient to develop effective responses to climate change. Citizen engagement with the policy-making process is vital. In order to gain legitimacy and public acceptance, policy decisions need to be made through a process that is perceived as fair. That requires inclusive participation of different sectors of society as well as thorough accountability. Moreover, citizens arguably are entitled to contribute to identifying and choosing options to address climate change and it has been shown that, although challenging, public participation can improve the acceptance and, according to some, even the quality of political decisions.

Wider political engagement with climate change through political action outside of or beyond the spaces created by governments is necessary to address climate change, but in this chapter we focus on public participation promoted, initiated or invited by states: "organized processes adopted by elected officials, government agencies, or other public- (...) sector organizations to engage the public in environmental assessment, planning, decision making, management, monitoring, and evaluation" (Dietz and Stern, 2008: 1). Under the United Nations Framework Convention on Climate Change

(UNFCCC) signatories have committed to promoting public participation on climate change politics and to regularly report on their achievements. What have states done in order to engage citizens with climate change and promote public participation in policy processes? How do existing legal frameworks define states' roles and responsibilities in relation to public participation on climate politics and how have countries been implementing such responsibilities? How are citizens and state-society relations constituted through the discursive work of state reporting to the UNFCCC? In this chapter, we address these questions through the analysis of the National Communications reports of six countries with different levels of greenhouse gas emissions and vulnerability to climate change.

The chapter starts with a discussion of research on public participation. It then moves to a description of the legal and political framework for states' commitments on public engagement with climate change as set up by the UNFCCC and further documents. The following sections offer details of the design and research methods employed in this study and discuss the findings from the analysis of National Communications reports to the UNFCCC by six countries.

Research perspectives on public participation

In the last few decades, public participation in policy processes has become common currency in the discourses of official bodies, non-governmental organizations and academics. Dwindling public confidence in politics, the appearance of new complex or "wicked" problems, and the development of international agreements recommending (or determining) the need to hear the public have led multiple voices to call for involving citizens in decision making processes in areas such as land-use planning, transportation and the environment.

Various sets of ideas in academia have propelled the popularity of publication participation. Works on democratic theory and philosophy produced since the 1960s have favored participatory approaches to decision making (e.g. Barry, 1965; Rawls, 1971). The theory of deliberative politics put forth by Habermas (1996) and others suggests that public argumentation and deliberation can produce rational consensuses and lead to more qualified decisions. This is often thought of as an ideal situation where citizens would have equal access to political processes and where they would be able to participate without constraints. The possibility of unhindered expression and the universal commitment to truth would also be required. Even though unrealizable, several authors have defended the use of this ideal as a yardstick to evaluate "deliberative politics in action" (Steiner et al., 2005).

Dryzek's works on discursive (1994) and deliberative democracy (2000) have also contributed to place citizenship and public discourse on the agenda. With more direct relevance for problems like climate change, Beck's theory of "reflexive modernisation" (Beck, Giddens & Lash, 1996) sees value in public participation in policy processes in current day's risk society as traditional political institutions become irrelevant or inadequate to deal with new challenges.

Academic literature on Policy Studies offers various understandings of public participation. The degree of openness of policy processes, the stages at which the public is/should be allowed in, the procedures of selection of the participating public, methods of involvement of the public, and implications of outcomes of participation for decision-making are all matters of normative contention. In her seminal work, Arnstein (1969) argued that true participation involves a high level of empowerment of the public with input to the decision making process and called processes such as information and consultation as tokenism. Empirical research on public participation has focused on a wide variety of designs and mechanisms of participation and it is difficult to draw strong conclusions from existing studies.

Viewed as "the practice of consulting and involving members of the public in the agenda-setting, decision-making, and policy-forming activities of organizations or institutions responsible for policy development" (Rowe and Frewer, 2004, p. 512), many consider public participation desirable for a number of reasons. Normative, substantive and instrumental rationales (e.g. Stirling, 2008) for citizens' participation in the governance of public problems have been presented. Public participation is said to increase the legitimacy of decision-making as issues are more widely debated and at least some degree of public agreement is likely to be reached (Fischer, 2000). Such legitimacy requires that processes are perceived as fair in terms of access and power to influence the outcomes (Webler, Tuler & Krueger, 2001). Public participation is also lauded for increasing the accountability of the decision-making process as more (and more diverse) participants experience it from the inside and have a say in at least some of its phases. Some have maintained that the inclusion of diverse viewpoints, arguments and forms of knowledge can widen the definition of problems and improve the quality of the decisions, a substantive justification for participation of the public. In other words, public participation can arguably help avoid "formulating the wrong problem by incorrectly accepting the false meta-hypothesis that there is no difference between the boundaries of a problem, as defined by the analyst, and the actual boundaries of the problem" (Ulysses, 2012). Increased public acceptance and

trust may also result from participatory exercises. This may help avoid conflict in the implementation phase as the public is more likely to accept decisions resulting from a process that is viewed as democratic and inclusive. More generally, public participation can raise awareness of collective problems and offer opportunities for learning (Huitema, Cornelisse, & Ottow, 2010).

In the area of Science and Technology Studies, the notion of Public Engagement with Science and Technology (PEST) has become quite influential in the last two decades or so (e.g. From PUS to PEST, 2002; Felt & Fochler, 2008). In contrast with previous understandings of citizens as passive recipients of scientific knowledge and a focus on dissemination of information (the so-called "deficit model"), the current emphasis is on engaging the public at multiple levels in the governance of science and technology and on the promotion of more deliberative forms of decision-making. Non-expert forms of knowledge are now viewed as valid and the dialogic interaction between researchers and citizens is praised, even though it has rarely fulfilled its promises so far (Phillips, 2011).

Despite the merits pointed out above, participatory processes have been criticized for having a series of shortcomings that impede the realization of their democratic potential:

> The limitations, deficits and constraints of participatory exercises, specifically as they are built into the respective format of the exercise, may concern the range of participants, the scope of the agenda, the formulation of policy problems, or the stage of the policy process at which participation comes into play. (Braun & Schultz, 2009, p. 406)
> Assumptions regarding people's willingness and aptitudes to participate may be unfounded.

Their opinions may be easily manipulated or they may tend to avoid conflict and confrontation (Van de Kerkhof, 2006). As Van de Kerkhof (2006) maintains in a study on climate change options in The Netherlands, policy-makers are often reluctant to integrate the recommendations or preferences emerging from participatory processes in policy plans and perceive those exercises as "a communication tool, to educate the stakeholders (…), rather than a process that produces useful insights for policy making" (p. 297). Finally, participatory processes have been considered very costly in terms of the required time and resources (Powell & Colin, 2009).

While these problems must be taken seriously, they should not lead us to abandon public participation, especially as systematic research on the effectiveness of participation exercises is lacking. As noted earlier, most studies are not comparable due to variations in design, topics and methods. A structured research program needs to be developed and implemented (cf. Rowe & Frewer, 2004).

In what has been called a "participatory paradox" (Powell & Colin, 2009), public participation is, in most cases, initiated by an official body, governmental agency or research institution. Such is the nature of the commitments under examination in this chapter. There has been much debate on the pros and cons of top-down sponsoring of participation and it is not clear how meaningful and effective these forms of engagement are. The "consensus-orientation" of formal participatory exercises may annihilate more marginal views and produce "fake" agreements. Ascertaining these matters is not the goal of this project. Instead, we analyze how the relationship between the state and the public is constructed in discourses on public participation. As Braun and Schultz (2009, p. 406) argue "'[t]he public' (…) is never immediately given but inevitably the outcome of processes of naming and framing, staging, selection and priority setting, attribution, interpellation, categorisation and classification". Here we look at legal and policy discourses on public participation and examine the status and identities that are assigned to citizens and to the state. In the next section, we focus on the legal and political dispositions regarding the promotion of public participation in climate politics and start identifying processes of social positioning.

International commitments towards public participation on climate politics: The legal and political contexts

In International Relations theory, regimes are sets of "principles, norms, rules, and decision-making procedures around which actor expectations converge in a given issue-area." (Krasner, 1982, p. 185) In the climate regime the main reference regarding matters of public participation is the UNFCCC, agreed in 1992, and particularly its article 6, although there are further significant developments.

Signatories of the UNFCCC have committed to objectives related to informing, educating and involving the public in relation to climate change. Such commitments are introduced in article 4 of the Convention.

Article 4
COMMITMENTS
1. All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:
 (i) Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations (UNFCCC, 1992)

Although the commitments it sets up for states include the promotion of public access to information and public participation in developing responses to climate change, article 6's heading

privileges the domains of "education, training and public awareness". It defines the goals of the Parties

to the Convention as follows:

> Article 6
> EDUCATION, TRAINING AND PUBLIC AWARENESS
> In carrying out their commitments under Article 4, paragraph 1 (i), the Parties shall:
> (a) Promote and facilitate at the national and, as appropriate, subregional and regional levels, and in accordance with national laws and regulations, and within their respective capacities:
> (i) the development and implementation of educational and public awareness programmes on climate change and its effects;
> (ii) public access to information on climate change and its effects;
> (iii) public participation in addressing climate change and its effects and developing adequate responses; and
> (iv) training of scientific, technical and managerial personnel;
> (b) Cooperate in and promote, at the international level, and, where appropriate, using existing bodies:
> (i) the development and exchange of educational and public awareness material on climate change and its effects; and
> (ii) the development and implementation of education and training programmes, including the strengthening of national institutions and the exchange or secondment of personnel to train experts in this field, in particular for developing countries. (UNFCCC, 1992)
> The Kyoto Protocol to the UNFCCC, agreed in 1997, reiterates determinations on education,

training, public awareness and public access to information but leaves public participation out.

> Article 10
> [All parties (…) shall:]
> e) Cooperate in and promote at the international level, and, where appropriate, using existing bodies, the development and implementation of education and training programmes, including the strengthening of national capacity building, in particular human and institutional capacities and the exchange or secondment of personnel to train experts in this field, in particular for developing countries, and facilitate at the national level public awareness of, and public access to information on, climate change. Suitable modalities should be developed to implement these activities through the relevant bodies of the Convention, taking into account Article 6 of the Convention. (Kyoto Protocol, 1997)
> In 2002, states meeting at the 8th Conference of the Parties to the UNFCCC agreed the New

Delhi Work Program, which aimed to integrate article 6 activities into existing climate change

programs and strategies, promote synergies between conventions, and promote responses by Inter-

Governmental Organizations and Non-Governmental Organizations. It listed a series of activities that

states "could" develop to implement article 6. It is important to note that this is a non-binding work

program. Conceived for five years, it was extended for another five (i.e. until 2012) at the 13th

Conference at the Parties to the UNFCCC held in Bali in 2007.

In presenting its scope, the New Delhi Program (version agreed in 2002) redefined article 6's

aims through separation and merging of different elements: "parties are encouraged to undertake

activities under the categories listed below, which reflect the six elements of Article 6: International

cooperation (…); Education (…); Training (…); Public awareness, public participation and public

access to information (…)" (UNFCCC, 2003, para. 10). Listing one element in isolation invests it with a

stronger rhetorical force than placing it in the same paragraph as others. As we see it, public participation lost importance in this formulation in relation to article 6. However, the Program's 2007 amended version gives the same weight to all six elements and further specifies the modes of public participation: "it is useful to promote public participation in addressing climate change and its effects and in developing adequate responses, *by facilitating feedback, debate and partnership in climate change activities and in governance*" (parts in italic are new to the 2007 version) (UNFCCC, 2008).

The New Delhi Program makes important recommendations to the implementation of measures geared to promoting public participation. In paragraph 15 it is stated that "Parties could (…): (d) Develop a directory of organizations and individuals, with an indication of their experience and expertise relevant to Article 6 activities, with a view to building active networks involved in the implementation of these activities". This could potentially widen the scope of civic involvement in climate politics.

The following part is especially valuable as public participation is concerned:

(…) Parties could (…): (i) Seek input and public participation, including participation by youth and other groups, in the formulation and implementation of efforts to address climate change and encourage the involvement and participation of representatives of all stakeholders and major groups in the climate change negotiation process. (UNFCCC, 2008, para. 15)[1].

The reference to "seeking input" from various groups of the public for policy processes and the specification of the stages of policy "formulation and implementation" are significant advances in the translation of UNFCCC's article 6's goals. This enunciation appears to point to consultation of the public or even to more advanced forms of collaboration with citizens in the design and application of policy. The final part of the sentence refers to involvement in the "climate change negotiation process", presumably at the international level, but is a bit more limiting in terms of participants' identity: "representatives of all stakeholders and major groups". However, the following paragraph expands the scope of participant profiles:

Parties should seek to enhance cooperation and coordination at international and regional levels, including the identification of partners and networks with other Parties, intergovernmental and non-governmental organizations, the private sector, state and local governments, and community-based organizations, and to promote and facilitate the exchange of information and material, and the sharing of experience and good practices. (UNFCCC, 2003 and 2008)[2].

The UNFCCC determines that countries should regularly report the steps they are taking towards implementing commitments accepted under the Convention (articles 4.1 and 12). Those reports have been designated as National Communications (NCs). The New Delhi Program also asks parties to report in their National Communications "on their accomplishments, lessons learned, experiences gained, and remaining gaps and barriers observed" (UNFCCC, 2003).

The UNFCCC Secretariat provides guidelines for preparation of NCs. The first version of these guidelines was revised in 1999 and has continued to be applied to the latest NCs. That document constructs state obligations in relation to public participation in rather different terms than in relation to education, training and public awareness:

> (…) Parties *shall* communicate information on their actions relating to education, training and public awareness. In this section, Parties *should* report (…) on public information and education materials, resource or information centres, training programmes, and participation in international activities. Parties may report the extent of public participation in the preparation or domestic review of the national communication. (UNFCCC, 1999, para. 65) (our emphasis)

The promotion of public participation is here demoted from a formal obligation to a voluntary act.

Public participation in environmental issues and in "sustainable development" has been consecrated in several other international agreements that, as mentioned before, the New Delhi Program intends to create synergies with. For instance, in 1992, the Agenda 21 proclaimed that "commitment and genuine involvement of all social groups" was "critical" to its implementation and that "[o]ne of the fundamental prerequisites for the achievement of sustainable development is broad public participation in decision-making." (Agenda 21, 1992) The Rio Declaration on Environment and Development determined that "environmental issues are best handled with the participation of all concerned citizens, at the relevant level" (Rio Declaration on Environment and Development, 1992). This was further established in the 1998 Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, which sets up the right of the public to participate in decision-making processes.

The analysis of different legal and political documents suggests that while there are determinations for the promotion of public participation on climate politics they are somewhat ambiguous. Whereas article 6 of the UNFCCC placed public participation almost en par with education, public awareness, training and access to information, the Kyoto Protocol excluded any references to it. Even though some more recent documents diminish public participation in relation to the other issues others detail states' commitments with regards to involving the public in climate politics.

Research design and method

We selected six countries for this project: China, India, Portugal, Tuvalu, United Kingdom, and United States. Criteria for country selection included UNFCCC status (half are Annex I countries to the Convention, i.e., industrialized countries and economies in transition; half are non-Annex I countries,

i.e., developing countries); contribution to global GHG emissions; vulnerability to climate change impacts; diversity of track records on climate policy; and potential representativeness of certain groups of countries, such as economies in transition.

As mentioned above, states are expected to regularly report progress on UNFCCC commitments via their National Communications. According to the Convention's website "[m]ost of the 41 Annex I Parties submitted their first report (…) in 1994 or 1995, their second in 1997-1998 and the third after 30 November 2001. The fourth NCs were due on 1 January 2006 and the fifth on 1 January 2010. Decision 9/CP.16 calls for submission of the sixth NCs on 1 January 2014". (UNFCCC, 2012a). Determinations are different for Non-Annex I countries, who "shall submit [their] initial communication within three years of the entry into force of the Convention for that Party, or of the availability of financial resources (except for the least developed countries, who may do so at their discretion)". (UNFCCC, 2012b).

We collected the latest NCs available at the UNFCCC's website for the six countries at the time of the research, i.e. June 2012 (table 2).

Table 2: Latest National Communication available at the UNFCCC's website for six countries as of 30 June 2012.

<INSERT TABLE2>

Source. UNFCCC (2012c).

Chapters in NCs relative to the UNFCCC's article 6 were analyzed. Whereas the entire chapters were examined, special attention was paid to references to the public/citizens and to public participation.

The analytical program that we employed draws on critical discourse analysis (e.g. Wodak & Meyer, 2009). The assumption here is that discursive practices, such as NCs (and, more widely, political discourse), have a constitutive role: they create forms of intelligibility of the politics of climate change, and produce effects in ways of thinking, speaking and acting. The main points of the analytical framework are presented below:

▪ How is the relevant report chapter structured? What are the headings and subheadings? The document's organization into sections and subsections creates units of meaning (cf. Jäger & Maier, 2009) that matter in terms of the constitution of political issues and the definition of political priorities.

▪ What is the order of topics in the text? Besides the semantic distinction and assignment of importance created by headings, the internal sequence of topics in each section also creates a hierarchical order. The superstructure (van Dijk, 1988) of NCs will be briefly analyzed, with a focus on the first paragraphs, which top-rank a given topic.

▪ What lexical choices are made in reporting on the fulfillment of commitments? The concepts used by governments when speaking of (or avoiding) their responsibilities and achievements are associated to specific ways of thinking and acting upon them.

▪ How is public participation discursively constructed? How is it defined and characterized?

▪ How are the actors of public participation constructed? Who is this public? How is it defined, circumscribed, delimited and selected? Is the diversity of publics acknowledged? In turn, how is the identity of the state defined? Is the state constructed as a promoter of public engagement, an authoritative source of knowledge or otherwise? In line with Halliday's (1985) systemic-functional theory of language, we posit that language not only generates representations of the world but also constitutes relations and identities. The system of (power) relations between different social groups is developed through discursive practices as well as material realities.

▪ How does the state communicate with citizens? What forms and media of communication are employed to engage the public?

▪ What vision of society and society-state relations is present? What other ideological aspects are present (explicitly or implied) in the text? Visions of public participation are likely to be associated with certain social, political and cultural values and worldviews and it is important to examine how these are discursively enacted.

Discursive practices always occur in a given social context and the analysis of historical conditions in which reports were produced is likely to help understand them (cf. Reisigl & Wodak, 2009). Therefore, we will briefly look into questions such as the following: What is the standing of each country in the international politics of climate change? What is their political situation? In the analysis, we will also take into account non-discursive social practices and (policy) materializations, as reported in the NCs.

An Analysis of National Communications to the United Nations Framework Convention on Climate Change

This section examines the National Communications of six countries to the UNFCCC and how they report on commitments they undertook under the Convention's article 6. We start with an overview of relevant traits of the six countries and then move to a country-by-country analysis.

As argued above, contextual information can contribute to understanding the ways in which different countries may have responded to commitments regarding the promotion of public participation, as well as education, public awareness and training. Table 3 summarizes some relevant characteristics of the six countries covered in this chapter.

Table 3. Characteristics of the six countries analyzed.

<INSERT TABLE 3>

Source. U.S. Central Intelligence Agency (2012); United Nations Statistics Division (2012).

Note.* Thousand metric tones (2009). ** Metric tons of CO_2 per capita (2009).

Below we analyze each country's case. Countries are presented in order of their overall contribution to the global greenhouse effect in two groups (UNFCCC's annex I and non-annex I).

Annex I countries

United States

Long-time holder of the number one position in the world's GHG emissions table, the United States is currently the second largest emitter with around 18% of the world's annual total. It has one of the highest levels of emissions per capita. Although it signed the Kyoto Protocol to the UNFCCC, the United States never ratified the document. In 2001, George W. Bush declared the country was abandoning the Protocol because it was contrary to US interests. In further international negotiations, the United States have opposed compulsory targets for GHG emissions without an equivalent commitment by developing countries. There is an ideological divide in the country with regards to climate change with most Democrats typically supporting action to address climate change and Republicans opposing it. The central place of individual freedom in the national psyche is likely to antagonize with a strong governmental role in responding to climate change.

The US NC's chapter on "education, training and outreach" opens as follows:

> Federal agencies' climate change education, training, and outreach efforts seek to ensure that individuals and communities understand the essential principles of Earth's climate system and the impacts of climate change, and are able to evaluate and make informed and responsible decisions with regard to actions that may affect the climate. (United States Department of State, 2010, p.139)

This sentence does two fundamental things. Firstly, by speaking of "ensuring" that people "understand" the climate system and the impacts of climate change the relationship between the state and citizens is here constructed as one of unilateral diffusion of knowledge. This excludes other, more dialogic forms of interaction. Secondly, the declared goal of ensuring that people are "able to evaluate and make informed and responsible decisions with regard to actions that may affect the climate" atomizes responsibility for addressing climate change and reduces the combat of climate change to individual rather than societal or systemic options. Although attenuated by a reference to communities (besides individuals), the purpose is here presented as behavioral change with no mention of other forms of engagement, such as citizens collaborating in policy change.

The US starts by defining the public of education, training and outreach as "individuals and communities". When presenting the actual programs that have been implemented, there are some references to communities (in some cases meaning professional communities) but it is unclear how community-level engagement has actually been put into practice (most programs that refer to communities are also targeted to individuals).

There are no references to public participation. This issue is all but obliterated from the agenda of the state. There are mentions of "engagement" but the term is employed in a rather vague sense. For instance, in a section headed "Overview of National Efforts to Engage the United States on Climate Change", the NC mentions a disparity of developments in the previous years, from the publication of Al Gore's book and documentary *An Inconvenient Truth* to the organization of *Live Earth* to the release of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change to increases in media coverage of the issue. Later on, the subjects of engagement (and "participation") are specified but not what it entails:

> NOAA [National Oceanic and Atmospheric Administration] is committed to supporting and facilitating system-wide change of the formal education system to build educators' capacity to produce climate-literate citizens. Such change requires engagement and participation across the spectrum of the education community—including policymakers, academic institutions, professional associations, teachers, and students. (United States Department of State, 2010, p. 142)

Formal education "involve[s] K–12 and undergraduate curricula and postgraduate professional development programs". Whereas other countries analyzed below speak of "raising public awareness", the US refers to "informal education programs" that have been "conducted in museums, parks, nature centers, zoos, and aquariums across the country" (United States Department of State, 2010, p. 140)

The US's NC5 describes a wide range of activities towards education and training. The emphasis is on dissemination of information rather than the promotion of transformations in practices and institutions associated with the generation of GHGs. Out of over 100 federal climate change programs listed on the document, only one third is related to action upon GHG emissions and the vast majority only from an educational point of view; the rest focused essentially on the detection of climate change and climate impacts. This appears to build on the assumption that more knowledge about climate change will lead to changes in behavior.

The US use the term outreach instead of public awareness. Although the former is not employed by the UNFCCC, it may be more precise in designating what most governments appear to do: dissemination of information rather than the sustained enactment of policies geared towards the development of a conscious and responsive attitude.

Nevertheless, the following excerpt points to a different image, involving certain groups of people in the social and economic changes required to address climate change in a win-win formula:

> Education and workforce training are critical parts of EERE's [Department of Energy's Office of Energy Efficiency and Renewable Energy] mission, which is to create an energy-literate generation of skilled workers, leaders, and innovators who will produce affordable, abundant, and clean energy, thus accelerating the transition to a low-carbon economy and ensuring U.S. global competitiveness. (United States Department of State, 2010, p. 142)

The US government refers to the need for "fostering public *climate literacy*—one that includes *economic and social considerations*" and argues that it "will play a vital role in knowledgeable planning, decision making, and governance". (p. 139) (our emphasis) This is a positive development as it calls for the development of skills and competencies that integrate the biophysical sciences with society. In a unique move, the US government states the importance of a "comprehensive, interdisciplinary approach", speaking of integrating "the social sciences into federal agencies' educational and outreach programs" and maintaining that this "would help to ensure informed decision making and effective systems-level responses to climate change" (p. 139). However, in the NC the focus is on scientific knowledge to the exclusion of other forms of knowledge and the social sciences are only mentioned in very few of the federal programs listed. The following excerpt also suggests that the US government appraisal of the social sciences' role in relation to climate change is quite narrow: it appears to be focused on a simplistic instrumental view of communication as information dissemination and assume that scientific knowledge about the climate system conduces to changes in individuals' decisions:

The federal agencies are working with social scientists to *determine the most effective ways to*

communicate with students and the public *about how Earth's climate is changing*. In an effort to extend their education and outreach programs and maximize their impact, federal agencies are addressing the following questions: How can local high-impact activities be scaled up and serve as national models? What are effective climate change literacy professional development opportunities for policy decision makers at all levels? How do we *assess changes in individuals' understanding of Earth's climate system* and the *decisions* they make about their actions? *How can nationally representative assessments of public knowledge and understanding of climate change help identify common knowledge gaps, misunderstandings, sources of confusion, and key concepts the American public needs to understand about climate change*? (United States Department of State, 2010, p. 140) (our emphasis)

United Kingdom

The UK was the first country in the world to set up a legally-binding long-term framework for GHG emissions, the Climate Change Act 2008. It commits future governments to reduce CO_2 emissions by 80% from 1990 levels by 2050. However, implementation has been slow. In spite of some party differences, there is a political consensus in the country regarding the need to abate climate change. The UK has a long tradition of civic organization and civic action on environmental issues. A number of self-organized groups, such as Transition and Low Carbon Communities, have been working towards the mitigation of climate change. A significant majority of the British public supports policies to combat climate change although climate skepticism has grown in the last few years and there is resistance to some measures, such as the installation of wind farms.

The relevant chapter of the UK's NC is divided into two sections: education and public awareness. The educational focus seems to be on developing "the skills and knowledge" that children "need in a changing world", "an ability to *evaluate* environmental, scientific and technological issues as well as *debate* informed, ethical views on complex issues, such as climate change", and encouraging "young people to *investigate*, *communicate* and *act* to tackle climate change" (Department of Energy and Climate Change, 2009, p. 128) (our emphasis). In this case, education on climate change is depicted as involving more than dissemination of knowledge as the UK government highlights its aim of *enabling* and *empowering* young people to deal with climate change.

This NC has multiple references to citizenship and to what being a citizen is about: "[young people's] role as global citizens", "the new curriculum (…) has a focus on active citizenship"; "[d]eveloping an understanding of environmental issues and how we lead sustainable lifestyles is a key element of becoming a responsible citizen" (Department of Energy and Climate Change, 2009, p. 128-9). Good citizenship is defined as global, active and green, and the state presents itself as a promoter of those virtues.

Public engagement is an objective associated with various activities described under the public awareness section. However, the identity of the public-to-be-engaged is not always clear. For instance:

ACT ON CO2, launched in 2007, is a major Government-led multimedia campaign (…) which aims to *engage citizens* on climate change issues, address the confusion and powerlessness which can impede people taking action, and encourage genuine and sustained behaviour change to help reduce CO2 emissions (…) The ACT ON CO2 website aims to signpost, interact, coordinate and *engage consumers* on climate change, providing a clear, consistent, authoritative and credible voice. (…) ACT ON CO2 calculator (…) is an integral part of the Government's strategy to *engage with and educate the public* as part of the *mobilisation of society* to adopt low carbon lifestyles. (Department of Energy and Climate Change, 2009, p. 130) (our emphasis).
  In this excerpt alone we find four labels with different connotations: citizens, consumers, public and society. The rights, duties and expectations of these different people-profiles are quite diverse and the rationale for using one or the other is not apparent.

Despite these ambiguities, the UK government appears to be interested in learning more about different "segments" of the public:

Defra [Department for Environment, Food and Rural Affairs] developed an environmental segmentation model, predominantly used for advising policy and communications development. It is based on people's responses to a broad range of attitudinal questions (…). The model divides the public into seven clusters each sharing a distinct set of attitudes and beliefs towards the environment, environmental issues and behaviours. There has been a recent increase in the number of research projects and government bodies using the model. In addition, a web based tool, designed for use by a range of stakeholders to inform the public of which segment they best fit into and how they can make environmental changes, is currently in development. (Department of Energy and Climate Change, 2009, p. 130)
  Although other publics are mentioned in the NC, the main focus of the British government appears to be on young people. It is worthy of note that there is one reference to unions and business: "The Assembly Government [of Wales] is also looking at how we can develop a workplace-based component to the [communications] campaign [on climate change] and are interested in working with the Trade Unions and businesses on this." Business is also targeted by the Carbon Trust Campaign which aims to help "businesses of all sizes" to achieve "energy savings, reduce carbon emissions and make significant direct costs savings". (Department of Energy and Climate Change, 2009, p. 131).

There are no references to "public participation" in the report. However, it points to various links between the state and "community action" in Wales:

The Assembly Government is working to support community action on climate change. Activities have included:
- Holding a series of community events to *find out more about what communities are doing* and *how we can support them better* as well as providing an *opportunity for learning, sharing experiences and networking*
- Completing a scoping report on the action underway in communities and how this can be supported by the Assembly Government
- Producing a Community Action Pack and associated DVD showcasing good practice which provides information on how communities and other groups can take action to tackle climate

change. (Department of Energy and Climate Change, 2009, p. 131) (our emphasis)

These are noteworthy forms of cooperation between the state and civic groups. The state positions itself in a horizontal relationship with communities, as interested in learning about community initiatives and willing to support them.

Portugal

Under the Kyoto Protocol, the European Union committed to a reduction of 8% in its GHG emissions (in relation to the baseline year of 1990) but made a differential distribution of responsibilities amongst its member states. As an economy in transition, Portugal was allowed to increase its emissions by 27% but quickly went beyond this target mainly due to increases in road transportation. A strong investment in renewable energies in recent years has put the country back on track to meet its Kyoto target. Incongruously, the country continues to cut back on rail and other forms of public transportation. Portugal was ruled by a dictatorial regime for over four decades and became a democracy in 1974. It has a weak tradition of public participation and low levels of civic involvement with environmental issues.

In Portugal's NC, the chapter on "education, training and awareness raising" includes four sections: "general policy guidelines on education, training and public awareness", "primary, secondary and higher education", "training", "raising public awareness" and "participation in international activities". It differs from others as it includes extensive information about the Portuguese school system and dedicates a short section to international cooperation (one of the commitments under UNFCCC's article 6).

Besides general subjects, such as "education for citizenship", Portugal's school system covers climate change in a couple of subjects up to grade 9 and in a few more in some of the tracks of secondary education. Moreover, the NC report lists a number of school projects on environment and climate change. Most of the training activities for teachers have not focused specifically on climate change, addressing environmental issues and sustainability. Under "raising public awareness", the report lists a number of projects on energy and climate change aimed at the general public that have been led by a variety of agents, such as official agencies, local authorities, and/or corporations.

For the purposes of this chapter, the most relevant sub-section of the NC is the one on "access to information and public participation". Portugal is the only country to include an explicit description of activities geared to public participation in its NC[3]. However, this is limited to public

consultations: "The National Climate Change Programme (PNAC) and the National Allocation Plan [of GHG Emissions Allowances] (PNALE) were both subject to consultation processes." (Portuguese Environment Agency, 2010, p. 226) It is positive that the NC includes information about how the process was conducted and what the outcome was: for "PNAC 2001, presented to the public on December 18th [, 2001], APA promoted three public sessions during the months of January and February 2002; results were included in the PNAC 2001 after analysis by the Commission for Climate Change." (Portuguese Environment Agency, 2010, p. 226) For "additional policies and measures" that were planned to meet commitments under the Kyoto Protocol relevant "documents were disseminated and made available from APA website. Between December 18th 2003 and February 2004, comments and suggestions were received and summarized in the respective public discussion report." (Portuguese Environment Agency, 2010, p. 226). For PNALE, PNALE II and the Portuguese National Strategy on Adaptation, the NC lists (or summarizes) those who participated in the public consultation. Significantly, for the first two, the vast majority were corporations and business associations with very little participation of the so-called civil society. For instance, for PNALE,

> (…) contributions were received from:
> - 3 business associations
> - 1 NGO
> - 12 companies and other entities and
> - 1 individual.
>
> All received individual replies from the working group, explaining and justifying the options adopted. (Portuguese Environment Agency, 2010, p. 226).

While the NC suggests that the government is open to reviewing its proposals and include contributions from all parts[4], an analysis of the "public consultation report" relative to PNALE (Ministério da Economia and Ministério das Cidades, Ordenamento do Território e do Ambiente, 2004) reveals that six points coming out of the public consultation were incorporated in a new version of the document. They all corresponded to suggestions made by industry. None of the suggestions made by the only contributing organization representing non-governmental organizations (NGOs) – CPADA (Portuguese Confederation of Environmental NGOs) – were incorporated nor was their exclusion justified. Furthermore, while the NC creates an impression of accountability, CPADA complained about lack of transparency in the public consultation process because the GHG emissions of the businesses receiving emissions allowances were not made public (Ministério da Economia and Ministério das Cidades, Ordenamento do Território e do Ambiente, 2004, p. 9). It should be noted that Portugal was the only country to dedicate a sub-section of its NC to the "involvement of non-governmental organisations" (with general data on state support for environmental NGOs).

Confronting NCs with other documents and practices is not the aim of this chapter. Still, this minute exercise suggests that there may be a rhetorical function to NCs. Countries attempt to construct a self-image as open and dialogical. Other discursive and social practices, as well as policy materializations, may tell a different story.

Non-Annex I countries

China

Although with small historical contributions to climate change and a level of per capita emissions that is still relatively low, China is currently responsible for the largest share of global GHG emissions (around a quarter). Despite significant investments in renewable energies, the country's GHG emissions are projected to rise sharply in the coming decades. This turns it into a vital player in the international politics of climate change where it has tried to avoid any commitments based on its alleged right to continuing economic development. As a single-party communist state, China's fortunes very much depend on official policy decisions. However, given the sheer size of its population and the speed of its socio-economic transformation, citizens' attitudes and behaviors towards climate change are likely to increasingly make a difference.

In its NC, China clearly connects climate change with sustainable development. The opening paragraph of the chapter on "education, training and public awareness" reads:

> In the *Program of Action for Sustainable Development in China in the Early 21st Century* formulated by the Chinese government in 2002, it was put forward: to develop education at all levels and in various ways and enhance public awareness of sustainable development, and to reinforce human resource development to build up the public's scientific and educational capacities to participate in sustainable development. (…) China has (…) devoted considerable efforts to raise public awareness on climate change to promote sustainable development. (The People's Republic of China, 2004, p. 139)

An emphasis on climate change as an "issue of development" is also found in China's National Climate Change Program (Chinese National Development and Reform Commission, 2007). Placing climate change within the economic and social framework of "development" has been a key aspect of the position of China, as well as countries like India and Brazil, in the international negotiations on climate change. The entitlement to development has been used as a central argument in the rejection of commitments to reduce GHG emissions by these countries. "As this is, in many ways, a *moral* argument, it is all the more powerful in the legitimation of the position of China and other countries in the international politics of climate change." (Carvalho, 2008, p. 6)

China's NC is organized under three main headings: "education and public awareness raising", "training and public awareness raising" and "outlook". Although there are specific references to climate change, education and training on climate change come mainly subsumed under environmental education: "China has already included environmental education in the Outline of All Subjects for Compulsory Education in Primary and Secondary Schools (…) training for officials in the environmental protection sector has been greatly strengthened". (The People's Republic of China, 2004, p. 139)

The section on training and public awareness is divided into multiple sub-sections highlighting different means and mechanisms of dissemination of information on climate change. After presenting data survey that points to the centrality of media (both television and newspapers) for the public, the Chinese government includes a heading on "media publicity" where it is argued that "China has made full use of the media including TV, broadcasting and newspapers for the publicity of environmental protection and climate change" (The People's Republic of China, 2004, p. 141). This is surprising as research shows that references to climate change in some Chinese media were very sparse at the time of publication of China's NC. That is at least the case of *China Daily*, an English-language newspaper that published 53 articles in 2004 with the phrase "climate change" and jumped to 635 in 2007 (Carvalho, 2008).

The report also includes sub-headings on "website construction", "public lectures and reports", "workshops and forums", and "publications and other training materials". The Chinese government portrays itself as an active agent in the promotion of public awareness and the dissemination of knowledge on climate change through the Internet, publications and other media. It also suggests that it engaged on some form of seemingly dialogic communication with its citizens: "China has also used the Internet to conduct experts' lectures and organize the experts to exchange online with the public on the questions of climate change." (The People's Republic of China, 2004, p. 142)

In China's NC, the emphasis is on public education for adaptation to climate change - "surviving education", "precaution education" - not for mitigation. Mitigation does get a mention in a defensive way: "it is necessary to raise the awareness of the business managers and staffs, making enterprises to become aware of the pressures in mitigating climate change and the underlining relationship between the counter-measures and the development of enterprises." (The People's Republic of China, 2004, p. 146)

There is only one explicit reference to public participation in China's NC: "the whole society has witnessed increasingly active development in training on sustainable development, environmental protection and climate change with a higher public participation." (The People's Republic of China, 2004, p. 141) What public participation means here is unclear.

India

The world's largest democracy is a complex social terrain where fast economic growth and high-tech leadership coexists with widespread poverty and deprivation of basic infrastructures. With rather low levels of per capita GHG emissions, India has objected to making any pledges regarding its future emissions; it has become one of the leaders of the developing world in international negotiations recurrently defending "equity" rights in GHG emissions. India stands to suffer severe impacts from climate change, such as cyclones and storms, heat waves, reduced water availability, drops in agricultural yield, and forced coastal displacements.

The theme structure of India's NC focuses on the scale of action, as well as on its agents: activities at national-level and at state-level, government-supported and private sector initiatives. In a lengthy chapter, a wide number of activities and initiatives are described many of which bear no connection with "education, training and public awareness" (the chapter title).

From the outset, India's NC constructs awareness of climate change in clear association with scientific knowledge. The following are the document's opening lines:

> In line with the Government of India's commitment to spreading awareness about climate change education and strengthening the scientific network, the National Mission on Strategic Knowledge for Climate Change (NMSKCC) was identified to build a vibrant and dynamic knowledge system that would inform and support national action for responding effectively to the objectives of sustainable development. (Ministry of Environment and Forests, 2012, p. 223)

In the first paragraph, the dissemination of knowledge on climate change is connected to economic and social development:

> (…) the National Knowledge Commission to the Prime Minister was also identified as being an important component regarding climate change education. (…) the Commission would carry out the following activities.
> - Build excellence into the educational system to meet the knowledge needs/challenges and increase India's competitive advantage. (…)
> - Promote knowledge applications in agriculture and industry, and knowledge capabilities to make government an effective, transparent, and accountable service provider to the citizen.
> - Promote widespread sharing of knowledge to maximize public benefit. (Ministry of Environment and Forests, 2012, p. 223)

In the same line, the NC offers a sharp analysis of India's National Action Plan on Climate Change, which (like China's) prioritizes economic development over climate-related policies:

The Plan (…) starts by first and foremost marrying climate change to development concerns in no uncertain terms. The very first line states, "India is faced with the challenge of sustaining its rapid economic growth while dealing with the global threat of climate change." Thus, the goal of development is unambiguously underscored, and climate change is recognized as a major problem, not least because it could hurt development targets. (Ministry of Environment and Forests, 2012, p. 224)

Much of the chapter focuses on expert knowledge and appears to refer to elite, specialized publics rather than the general public. For instance, the Environmental Information System is said to be aimed at "decisionmakers, policy planners, scientists, engineers, and research workers" (Ministry of Environment and Forests, 2012, p. 224). Nonetheless, there is a strong (rhetorical) emphasis on the role of environmental information for the whole of the Indian society with activities targeting "students, youths, teachers, tribals, farmers, other rural population, professionals, and the general public" (National Environment Awareness Campaign) (Ministry of Environment and Forests, 2012, p. 234). A wide range of activities and media are employed to that purpose: folk dances and songs, street theatre, puppet shows, films, television programs, workshops, mobile exhibition vans, etc. It must be noted that despite many activities being about climate change, the majority concerns other environmental issues or involve general environmental education.

Reflecting the nature of India's socioeconomic system, many activities are related to agriculture and basic necessities, such as water management and sanitation. Initiatives often involve multiple goals, including responding to fundamental needs:

(…) a Knowledge based System (…) and the project "Mobilizing Mass Media Support for Sharing Agro-information" [are] expected to provide crucial information for accelerated and sustainable transformation of Indian agriculture through print and electronic mode, targeting Panchayati Raj institutions, private sectors, and other stakeholders. It is envisaged that such an intervention would help in poverty alleviation and income generation. (Ministry of Environment and Forests, 2012, p. 228)

Despite occasional mentions of mitigation, most attention seems to go to adaptation to climate change: e.g. "all the state governments were called upon to prepare State Level Action Plans on Climate Change (SLAPCC) [which] will enable communities and ecosystems to adapt to the impacts of climate change effectively." (Ministry of Environment and Forests, 2012, p. 230).

Besides the state, both at the national level and at the state-level (with large differences in levels of investment between states), India's NC refers to a number of other agents of education, training and awareness raising: "a network of nodal agencies and grassroot-level organizations", "NGOs, schools, colleges, universities, research institutes, women and youth organisations, army units" (Ministry of Environment and Forests, 2012, p. 233), private companies and other private sector organizations (through corporate social responsibility projects, for instance) and foreign bodies (e.g.

USAID). Some of the non-profit organizations also have an international nature or a link to another country (e.g. the Climate Project, founded by Al Gore).

Whereas the Indian government makes some statements in its NC on the importance of public participation to respond to climate change, it appears to leave actual engagement initiatives to non-governmental organizations. Below are two of the most significant projects that the government claims to support.

The M.S. Swaminathan Research Foundation, a non-profit trust promoting development and employment of poor women in rural areas, is said to have

> [h]osted an inter-disciplinary dialogue on the theme "Community Management of Climate Change: Role of Panchayats and Nagarpalikas" to prepare a welldefined roadmap for empowering local communities with knowledge and skills relevant to enhancing their capacity to manage the adverse impact of climate change. A series of consultations involving various panchayat leaders have been initiated to discuss the possible components of such a legislation. [It also hosted] a "National Dialogue on Adaptation to Climate Change". Participants included Cabinet Ministers, Prime Minister's Special Envoy for Climate Change, Secretaries from various ministries, State Secretaries, donor agencies, members of Planning Commission, academics, and various NGOs.

The Centre for Social Markets, a non-profit organization "harnessing the power and potential of markets, entrepreneurs and other economic actors to do good" (Centre for Social Markets, 2012),

> runs the Climate Challenge India initiative to reframe the climate debate in India and to create a proactive, opportunity-led approach towards addressing it. (…) Public awareness building and mobilization to make political constituencies more receptive to the need for change are central to the campaign. Business and city elites are another target for focused engagement and leadership.
> (…) Working closely with the arts and culture community, the [City Dialogues on Climate change] campaign uses creative media technology to reach out to India's geographically and linguistically diverse communities, building a nationally relevant knowledge and communications platform in the process.

These activities deserve to be recognized for the diversity of publics reached, including disadvantaged groups, and the methods and media of engagement. However, in a country where many aspects of state responsibility have been transferred to NGOs and thus removed further from public scrutiny and public choice, the fact that the promotion of public participation on climate politics is also dislodged from the realm of the state should be a matter of concern.

Tuvalu

Tuvalu is a small Pacific nation comprised of nine islands. As a low-lying and least developed country, it is quite vulnerable to sea-level rise, storms and other impacts of climate change. Tuvalu is a member of the Alliance of Small Island States (AOSIS), an intergovernmental organization that was formed to strengthen its members voice in international negotiations on climate change. AOSIS has played a very active role in the international politics of climate change and Tuvalu has sternly

defended the limitation of global average temperature rise to 1.5°C rather than the 2°C agreed amongst most parties to the UNFCCC. No official data is available for Tuvalu's GHG emissions, which are likely to be minute.

As of July 2012, Tuvalu had only submitted one NC to the UNFCCC. It is dated from 1999. The document is extremely short at a total of 38 pages. References to the areas under article 6 are very brief. Nonetheless, the country reports on progress in education and awareness-raising activities, which are considered a "priority" (Ministry of Natural Resources and Environment, 1999, p. 19). Unlike other countries (and particularly developing ones), Tuvalu refers to program measures focusing specifically on climate change and not the environment as a whole (or sustainable development). The country's NC states that climate change has been incorporated in primary and secondary school curricula and the University of South Pacific has a postgraduate course on vulnerability and adaptation.

Several of the activities listed in the excerpt below appear to call for active citizen engagement:

> In terms of public awareness, a strong position has been taken by the government and communities through *participatory radio programmes* (interviews), leaflet production, *essay competitions*, *poster competitions*, national workshops and visits to outer islands to promote education and awareness on climate change and sea level rise. (our emphasis) (Ministry of Natural Resources and Environment, 1999, p. 19).

When presenting its "future directions" the Tuvalu government mentions the "[a]ppointment and training of a dedicated public educator who would work with the Department of Education in schools, the media and with the public to improve cultural attitudes to the environment and clarify misconceptions". (Ministry of Natural Resources and Environment, 1999, p. 23). This suggests a tendency for centralization and cross-sectoral integration of measures to promote public awareness, which may not be surprising in a country of tiny size and resources. Although no data is given in the document, the UNFCCC has reported very low levels of awareness in many developing countries and called for funding of article 6 measures through the Global Environmental Facility (UNFCCC, n.d.).

Conclusions

Substantial transformations in social and political practices would be required to mitigate climate change and avert its worst impacts. Policies and forms of governance for climate change and all concomitant issues (energy production and consumption, industrial development, transportation, etc) would have to be modified. Enacting the kind of political change that is required to deal with climate change calls for wide citizen engagement; and public participation in policy processes, despite its limitations, is likely to generate positive outcomes.

In this chapter, we have analyzed international commitments to promote public participation in the development of climate change policy and how six countries report on the fulfillment of those commitments. We detected tensions and ambiguities in the legal and political documents that define state responsibilities. The UNFCCC builds public participation explicitly into states' commitments but lessens it vis-à-vis education, training and public awareness, the only issues that are placed in the title of its article 6. The Kyoto Protocol excludes any references to public participation. Some of the official guidelines to produce National Communications to the UNFCCC also appear to erase the promotion of public participation from the realm of *responsibility* of the state (constructing it as an option rather than an obligation). Still, the New Delhi Work Program proposes that states seek input and public participation in the formulation and implementation of climate policy.

Analysis of the NCs of six countries suggests that governments have been making UNFCC'S dispositions on public participation a dead letter. Most countries do not refer explicitly to public participation or make only very vague statements about it. Portugal, whose NC includes a sub-section on public participation, is an exception. However, it referred only to public consultation, which is a minimum form of participation, or tokenism by Arnstein's (1969) standards, and appeared to fulfill rhetorical goals rather than political intent. In any case, it would be useful to know who participates in these exercises and what their impact is in other countries, such as the UK, which has also put in place public consultations on policy proposals for climate change but chose not to refer to these processes in its NC. The UK report can nevertheless be singled out for the Welsh government's acknowledgement of the importance of activities and initiatives on climate change led by communities and its declared intent to learn about them.

Whereas the UNFCCC's determinations in terms of state-sponsored public participation in "developing appropriate responses" to climate change would call for the promotion and pro-active facilitation of citizens involvement in policy processes, most governments exclude these commitments completely from their reports and, hence, from their agendas. Their overwhelming silence on this matter indicates a widespread intent to turn public participation into a political non-issue.

In a report on the "role of public engagement in climate change policy" produced for the UK's Sustainable Development Commission, Creasy et al. (2007, p. 10) refer to "political space" as "any public debate in which government representatives, either political or administrative, are called to interact with an issue and respond on behalf of government."

Political space can lead to policy proposals or it may cause government to defend the status quo, reflecting how often agendas for public policy can be contested by differing actors in the policymaking process. Political space activity can be said to become part of the policy direction stage of the policy making process when it leads to actual action.

Judging from the official reports of six countries it appears that governments do not create such political spaces on climate change. While this was not to be expected in political regimes that admit to an authoritarian administrative structure, nominally democratic countries arguably should create mechanisms and forms of dialogue with their citizens on this all encompassing issue.

The relationship between state and citizens is generally constructed in the NCs in vertical terms with the state positioning itself as the source of knowledge to be disseminated to the public, which is constituted into a passive recipient. This unilateral diffusion of knowledge conforms to the information deficit perspective and the concept of public engagement with science and technology is nearly universally absent from the reports.

With minimal exceptions, where skills to evaluate, debate and act upon (information on) climate change are mentioned, the acquisition of *scientific* knowledge by the public appears to be the state's goal both in industrialized and developing countries. Given the ways governments discursively construct these matters, they seem to build on the assumption that more knowledge about climate change will lead to changes in behavior, despite research showing this is not the case (e.g. Carvalho, 2011). Perhaps not surprisingly developing (non-annex I) countries place climate change in the context of the right to economic development. Education and awareness raising are directed to adaptation, not mitigation, which is viewed as a responsibility of others.

In most cases, the public is a relatively vague entity. Sometimes particular groups are singled out but, except for young people, who are the targets of formal education, there is no sustained description of how other groups are reached. Bora and Hausendorf (n.d., p. 2) view citizenship as "an ongoing communicative achievement of social categories rather than a mere result of civil rights and entitlements that actors are supplied with." The communicative value of these reports lies in the fact that, through them, states construct citizens as subjects to be educated and governed without any political capacity. Reminiscent of ideas on "governmentality" (Dean, 1999), visions of state and society relations enacted here appear to rely on formal and informal education as techniques of control while rejecting civic participation in policy processes.

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[1] The original and the amended versions of the Program are identical regarding cited text – (d) and (i).

[2] This paragraph is also found in both versions of the Program.

[3] Portugal's NC is also the only one making connections to other relevant conventions (as suggested by the New Delhi Working Program): "In January 2005 APA [Portuguese Agency for the Environment] published the 1st National Report on the Aarhus Convention, on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. This Report refers to measures adopted to assure that the MAOT [Ministry for Environment and Spatial Planning] bodies and their employees support and assist the general public." (Portuguese Environment Agency, 2009, p. 226)

[4] E.g. The current "version of the proposal for the [National] Strategy [on Adaptation] has been sharpened to include the comments and suggestions received and it has been proposed for formal approval." (Portuguese Environment Agency, 2009, p. 227)