

**The impact of climate change on employment:  
management of transitions through social dialogue**

**Case study of Social Dialogue Roundtables on the  
effects of compliance with the Kyoto Protocol on  
competitiveness, employment and social cohesion in  
Spain**

**Geneva, 2010**



## **Acknowledgements**

The International Labour Organisation (ILO) is devoted to advancing opportunities for women and men to obtain decent and productive work in conditions of freedom, equality, security and human dignity. Its principal objectives are to promote rights at work, encourage decent employment opportunities, enhance social protection and strengthen dialogue in handling work-related issues.

The ILO is the only “tripartite” United Nations agency in that it brings together representatives of governments, employers and workers to jointly shape policies and programmes. This unique way of reaching agreements gives the ILO an edge in incorporating “real world” knowledge about employment and work.

Social dialogue plays a crucial role in achieving the ILO’s goal of promoting equal opportunity between women and men to obtain productive and decent jobs in conditions of liberty, security and dignity.

For the ILO, the concept of green jobs encompasses the transformation of economies, enterprises, workplaces and labour markets towards a sustainable economy which provides decent jobs with low levels of carbon consumption.

This case study on “Social Dialogue Roundtables on the effects of compliance with the Kyoto Protocol on competitiveness, employment and social cohesion in Spain” joins two of the principle interests on which the ILO works: social dialogue and sustainable development.

The present document is a rough draft. The definitive report will be published in the following months.

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## **LIST OF ACRONYMNS**

<b>AC</b>	Iniciativas de Aplicación Conjunta (Joint Implementation)
<b>AGE</b>	Administración General del Estado (General State Government)
<b>ANFEVI</b>	Asociación Nacional de Empresas de Fabricación Automática de Envases de Vidrio (National Association of Companies engaging in Automated Manufacture of Glass Receptacles)
<b>ASCER</b>	Asociación Española de Fabricantes de Azulejos y Pavimentos Cerámicos (Spanish Association of Manufacturers of Ceramic Tiles and Paving)
<b>ASPAPPEL</b>	Asociación Española de Fabricantes de Pasta, Papel y Cartón (Spanish Association of Manufacturers of Pulp, Paper and Cardboard)
<b>CCOO</b>	Confederación Sindical de Comisiones Obreras (Comisiones Obreras Trade Union Confederation)
<b>CCPCC</b>	Comisión de Coordinación de Políticas de Cambio Climático (Commission for the Coordination of Climate Change Policies)
<b>CEOE</b>	Confederación Española de Organizaciones Empresariales (Spanish Confederation of Employer Organisations)
<b>CEPYME</b>	Confederación Española de la Pequeña y Mediana Empresa (Spanish SME Confederation)
<b>ETUC</b>	European Trade Union Confederation
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>CNC</b>	Consejo Nacional del Clima (National Climate Council)
<b>UNCED</b>	United Nations Conference on Environment and Development
<b>E4</b>	Estrategia Española de Eficiencia Energética (Spanish Energy Efficiency Strategy)
<b>ENI</b>	National Industry Survey
<b>GHG</b>	Greenhouse Gases
<b>FECOMA-CCOO</b>	Federación de la Construcción, Madera y Afines – CCOO (Construction, Wood and Similar Federation-Comisiones Obreras)

<b>FITEQA-CCOO</b>	Federación de Industrias Textil, Piel, Químicas y Afines – CCOO (Textile, Leather, Chemical and Similar Industries Federation-Comisiones Obreras)
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>HISPALYT</b>	Asociación Española de Fabricantes de Ladrillos y Tejas de Arcilla Cocida (Spanish Association of Manufacturers of Baked Clay Bricks and Tiles)
<b>IDAE</b>	Instituto para la Diversificación y Ahorro de la Energía (Institute for Energy Diversification and Savings)
<b>INE</b>	National Statistics Institute
<b>ISTAS</b>	Instituto Sindical de Trabajo, Ambiente y Salud (Trade Union Institute for Employment, Environment and Health)
<b>MCA-UGT</b>	Federación del Metal Construcción y Afines – UGT (Metal, Construction and Similar Federation-General Union of Workers)
<b>CDM</b>	Clean Development Mechanism
<b>MITyC</b>	Ministry of Industry, Tourism and Trade
<b>MMA</b>	Ministry of Environment
<b>MTAS</b>	Ministry of Employment and Social Affairs
<b>ILO</b>	International Labour Organisation
<b>OECC</b>	Spanish Climate Change Office
<b>PER</b>	Plan for the Development of Renewable Energies
<b>PNA</b>	National GHG emissions allocation plan
<b>SGPCCC</b>	General Secretariat for Pollution Prevention and Climate Change
<b>UGT</b>	General Union of Workers
<b>UNESA</b>	Spanish Association for the Electrical Industry

## EXECUTIVE SUMMARY

The magnitude of the climate change issue, along with the interconnected transformations in production systems, require a search for solutions which will help meet these challenges and guide the necessary production transitions while guaranteeing social cohesion, participation in the decisions made by the protagonists of these changes—workers and employers and institutions—and taking advantage of potential benefits in terms of job creation.

To address this matter, the International Labour Organisation (ILO) has launched the Green Jobs Programme with the goal of analysing the relationships between environmental challenges (with climate change as a clear example) and the world of work. The Director General of the ILO, Juan Somavia, has repeatedly emphasised the importance of this line of work, as well as the value of effective dialogue which is inclusive of the different social actors, addressing the economic and social transitions that affect the world of work and facilitating these transitions in a just way for all, along the lines of the Decent Work Agenda. This just transition applies equally to the adaptation processes, the effects of climate change and other environmental challenges, as well as the changes necessary to reduce greenhouse gas emissions and other sources of environmental contamination, assuring that the transition is made in such a way as to maximise opportunities and reduce difficulties, guaranteeing decent work for all.

As a response by the world of work to the current economic crisis, the Global Pact for Employment (GPE), agreed to in June 2009 by the 183 Member States of the ILO's International Conference on Work, recognizes social dialogue, the encouragement of expression and participation, as well as the promotion of green jobs, as critical for recuperation and development. The GPE was adopted “with the objective of orientating national and international policies designed to stimulate economic recovery, to generate employment and to protect workers and their families in a scenario of crisis which has provoked the collapse of many enterprises and generated a rise in unemployment, poverty and inequality.

In this context, the ILO, in collaboration with the Sustainlabour Foundation, the International Foundation for Sustainable Development, have proposed to undertake this case study on the social dialogue roundtables initiative, created in Spain as a mechanism of participation and monitoring of compliance with the Kyoto Protocol and the norms and standards derived from it with the objective of analysing the effect of these norms on employment, competitiveness and social cohesion. The context in which these roundtables were initiated is particularly important, for, in accordance to the commitments entered into under the Kyoto Protocol for 2012, Spain is entitled to increase its GHG emissions by 15% above its 1990 emission levels. By 2008, however, accumulated increases already exceeded 50%. Spain must therefore drastically reduce emissions to arrive at levels that comply with its international commitments. Along with the need to consolidate the declining emissions trend, we should also consider the new perspectives

regarding the post-Kyoto period beginning in 2012, which will bring new obligations for countries in development and new challenges for industrialised nations, including new commitments which will be much more ambitious in terms of reduction of emissions.

### **The dialogue roundtables: A case study**

The social dialogue roundtables were established to fulfil and guarantee the compatibility of the objective of emissions reductions with those of social cohesion and economic development. A general roundtable and seven sectoral roundtables—one for each of the intensive sectors of emissions which should reduce its emissions according to the current European guidelines—were set up as a space for participation in which government and trade unions and employer organisations could analyse the potential social and economic consequences deriving from the implementation of measures to comply with the Kyoto Protocol, concentrating in particular on its impact on competitiveness, employment and social cohesion. Another roundtable was added one year later, in 2007, for the diffuse emissions sector; while not included in the objectives of Kyoto, this sector is responsible for a growing percentage of emissions.

The objective of the study is to assess the value of the dialogue roundtables as an instrument of participation and debate, as well as analysing their potential in responding to the challenges and opportunities posed by the different economic sectors covered by the emission allowance trading scheme. Moreover, the study analyses the goals achieved by the roundtables, the obstacles overcome to achieve these goals and the roundtables' possibilities to determine their utility as a tool for ensuring a just transition in the application of environmental policies in other countries.

The study also includes an assessment of the sectoral roundtables of social dialogue, their principal results and contributions, their potential, as well as some proposals to improve their functioning and the scope of their proposed objectives.

The temporal context for the study could not be more appropriate. Within the framework of the United Nations, governments are currently discussing the international agreement that will succeed the Kyoto Protocol, from 2013, in defining measures to combat climate change in general and, in particular, to quantitatively reduce GHG emissions. Furthermore, the gravity of the economic recession in Spain and its devastating effect on employment make it more urgent than ever to create spaces to promote change in the current production model. The current challenge is to design coherent policies that respond simultaneously to the economic crisis, the environmental crisis and the social crisis (characterised by widespread unemployment), ensuring that the measures adopted are successful in directing the country towards an economic model that is more sustainable in every way—economically, socially, and environmentally—and that focuses especially on the creation of green jobs.



## **The creation and functioning of the Social Dialogue Roundtables**

The tripartite social dialogue roundtables are the result of a compromise reached between the Government, trade unions and employment organisations to establish mechanisms to tackle the issue of compliance with the commitments under the Kyoto Protocol and its impacts on competitiveness, employment and social cohesion. The proposals agreed to at these roundtables are elevated to the Ministries and relevant institutions for their consideration.

During these years, the three parties have presented proposals to the roundtables to complete them and provide them with content. Until the present moment, the principal request elevated by the roundtables to the Government has been the formulation of ad-hoc indicators related to employment and emissions which make it possible to assess the impact of the measures on employment in the sectors.

Besides the roundtables, there exist in Spain other spaces of social participation addressing the policies of Climate Change, such as the National Climate Council. Nevertheless, the social dialogue roundtables analysed here present the peculiarity of its tripartite nature (with Government, trade unions and employer organisations), which gives a new perspective to the discussion on the impacts on competitiveness and employment during the production transformations towards an economy that is more sustainable all around—socially, environmentally and economically.

## **Evaluation of the roundtables by the actors involved**

All of the actors interviewed have a positive view of the space of the dialogue roundtables. They believe them to be an innovative instrument, with huge potential for the future.

They consider the roundtables to be an extremely useful instrument for exchanging information, sharing concerns and requests, and tracking the evolution of each of the sectors. In addition to its contribution to building knowledge and mutual trust among the parties, they also constitute an element of motivation in the fight against climate change for some of them, particularly for the trade union organisations.

Above all, the interviewees underline the initiative's contribution to dialogue and an understanding of the challenges encountered by each of the sectors, thereby minimizing the risk of conflict. In this regard, the interviewees pointed out that the NAP had not had any major impact on employment since they had not been faced with any major challenges, but that if such challenges arise in the future the roundtable would be an ideal forum for debating and reaching decisions in a consensual manner while minimizing negative social effects.

In relation to the influence the roundtables exercise on the decisions and strategies of the government, the interviewees emphasise their function as observatory, assessing and exchanging of information about the norms related to climate change and about policy decisions, plans and strategies regarding climate change. The majority agreed that the roundtables have had an effect, to a greater or lesser extent, on policy decisions.

The Government considers this consulting role as very relevant, especially when faced with the negotiations Spain will most likely have with other member states of the European Union in these work areas. It places particular value on its tripartite character.

In summary, it is clear that information is flowing more readily; the participation of industry, initially the most reluctant, has become more active, and the roundtables are serving as a “seed” for initiatives and measures that are being implemented in other forums

The three parties involved were of the view that the process has made a great contribution:

- The trade union organisations emphasise their democratising and participative nature.
- The employer organisations underscore the possibility of voicing demands and explaining their concerns.
- The Government highlights the effectiveness of the space in encouraging the flow of information and identifying early warning signs of possible conflict or undesired impacts.

Among the measures elevated and addressed by the Government, the abovementioned formulation of indications for the tracking of the evolution of emissions and employment of the different sectors stands out, as do the incorporation of a diffuse sectors roundtable, the creation of work groups to analyse the indicators and elevate proposals to the tables, the formation and recycling of workers for the promotion of Green Jobs, and the progressive inclusion of indirect employment in the statistics.

## **The most relevant results from the interviews**

Interviews carried out during the first part of the study in 2007

- All of the interviewees described the initiative as “innovative” and “pioneering”.
- Most defined it as a space for “calm”, “reflective”, “comfortable”, “reasoned” dialogue, in which conflict is generally low, even in those sectors dealing with the greatest NAP-related challenges.
- Various interviewees considered that they do influence policies in general.
- All of the interviewees expressed the need to guarantee the continuity of the space and were confident in this regard.
- All of the interviewees from the Government acknowledged that the roundtables offered an essential space for “hearing” the demands and concerns of the various parties involved.
- The majority considered it to be a plural space for pooling information.
- The employer organizations considered the roundtables in a rather instrumental way; but they see them as a good instrument with which to seek future solutions.
- The innovative nature of the experience was emphasized, as this type of tripartite space is not usual when dealing with medium and long-term matters (as opposed to immediate, concrete concerns).
- Suggestions put forward in regard to the roundtables included the adoption of NAP “monitoring” functions in other EU countries to prevent possible distortions.
- Thirteen of the fifteen interviewees believed that the roundtables had been extremely important towards achieving a better understanding of sectoral challenges.
- The trade union party highlighted the democratic nature of the roundtables and the possibility they offered of direct communication between the parties involved, requiring each of them to assume clear positions in regard to the others, in a climate of constructive dialogue.
- Another challenge raised from different spheres is the “fragility” of some data provided by the National Statistics Institute in terms of use for NAP monitoring. A meeting will be requested with the INE to make progress on this point.

## **Interviews carried out during the second part of the study in 2009**

- The interviewees welcomed the consolidation of the pooling of information in the form of economic and job parameters, which will allow a better understanding of the evolution of the sectors in terms of emissions and possible effects on competitiveness and employment.
- The interviewees considered the experience to be very useful and worth pursuing in other countries.
- Given that no significant impact was produced on employment and competitiveness during the first phase of the NAP, it was necessary to adopt any significant measures. Had any significant problems arisen, however, the interviewees from trade unions considered that the roundtables would be effective in arriving at a consensus solution.
- The trade union party emphasized the “incentive” that the roundtables represent in promoting the inclusion of environmental considerations, particularly in regard to climate change, in the trade union agenda.

- The interviewees considered the roundtables to be a “seed” for initiatives and measures for subsequent realization in this or other forums.

### **The future of the roundtables in Spain and the potential of their application in other countries**

The fact that the roundtables were established by Royal Decree confers institutionality on them and guarantees the continuity of the process. Nevertheless, the existence of a legal instrument is not a guarantee of democratic and participatory dialogue in and of itself; its continuity as an effective instrument will depend upon the favourable disposition of the parties to maintain an attitude of mature and productive dialogue. On this issue, the three parties have underlined their interest in the continuity of the roundtables and their utility at this moment of debate about climate change policies in the framework of the Kyoto Protocol, which will end in 2012, as well as in the post-Kyoto framework, from that time on.

This is an experience that can readily be replicated in countries which have a culture of dialogue and operational institutions which could accommodate this type of process. Replicability in the European context is relatively easy to assume, given that appropriate conditions exist for their implementation: a tradition of tripartism and a common environmental policy framework, as well as the promotion of renewable energies and the improvement of energy efficiency, among other things. Moreover, the social dialogue roundtables could also serve as a model for other geographical contexts and other aspects of climate change such as adaptation, where approaches of this nature might guarantee that the measures adopted are appropriate in “socio-employment” terms.

On the question regarding the possibility of exporting this pioneering initiative, the interviewees considered the experience to be very useful and said that it would be interesting to apply it in other countries, provided certain minimum conditions were met:

- The coordination between the ministries involved (Labour, Environment, Industry, etc.), as the exchanging of information is vital.
- The comprehension and commitment of trade union agents to the Kyoto objectives and open channels of dialogue between the parties.

The trade union sphere emphasized four key aspects as the principal value of the social dialogue roundtables that justify extending this tripartite approach, the development of which can still be improved upon:

- The anticipation of potential situations of socio-economic and environmental conflicts deriving from the consequences of implementing the Kyoto Protocol obligations and, subsequently, of other agreements.
- The search for solutions and adoption of measures to deal with the adverse effects between all of the interested parties on the basis of dialogue and consensus.

- Transparency in the decision-making process and in the management of measures adopted to prevent and minimize the negative effects on employment, competitiveness and the environment.
- The identification of opportunities to transform the production system on the basis of criteria of greater eco-efficiency, value-added and better quality of jobs.

## Conclusions

### **Tripartite Social Dialogue as a valid instrument in the analysis of the effects on competitiveness, employment and social cohesion in policies related to climate change**

The study analyses the utility of the social tripartite dialogue as a form of guaranteeing that the informed and more socially adequate decisions are made by institutions and relevant social agents—employment organisations and trade unions—in the framework of policies on the reduction of GHG emissions, especially relevant at this moment, when the battle lines in the fight against climate change are being drawn under the United Nations Framework Convention on Climate Change.

The roundtables are a valued instrument for the Government, employer and trade union organizations. The great majority of the interviewees approve of the initiative; when criticisms are given, they have to do with the limited scope of its results rather than to any negative opinion about the roundtables themselves.

The roundtables are a positive instrument of information and understanding of the problem. They are considered to be an extremely useful instrument for the exchange of information, the tracking of the evolution of effects of the climate policies on competitiveness, employment and social cohesion, the pooling of concerns and demands, the facilitating of an open and transparent debate, and the search for consensus solutions. Moreover, they foment a shared reading of the data, which helps to avoid simplifying or exaggerated interpretations.

The roundtables are an instrument which facilitate consensus. Above all, they contribute to a better understanding of the challenges for the sectors and to open dialogue, minimizing the risk of conflict.

The roundtables have sparked internal actions and are the seed of initiatives in each sector. As a consequence of the creation of the roundtables, some employer organisations and trade unions have started their own training and debate programs, as well as initiatives related to the exchange of information.

The roundtables support a reliable follow-up to the NAP. With the second NAP approved and in force until 2012, an important qualitative jump is expected in terms of the functions of the roundtables, evolving from their predominantly informative character to a more proactive role. This new dimension of the roundtables also implies an intensification of their workload, which will have repercussions in the frequency and content of the discussions.

The functioning of the roundtables entails an additional workload for the Government; this should be foreseen and resources should be provided in timely fashion. The replies received from the Government side in the interviews revealed, on the one hand, a desire to maintain the status quo on account of resources insufficient for taking on the anticipated additional burden and, on the other, a tendency towards recognition of the need to expand functions.

The roundtables can be a valid model for other sectors or initiatives. In the case of Spain, an important step forward has been made with the creation of a roundtable for the so-called diffuse sectors.

One hopes that the aforementioned growth and maturation of the space galvanizes the process as a space of negotiation between parties and between sectors, strengthening it and increasing its influence and importance during the decision-making process.

We may conclude that the experience is extremely positive for the three parties (government, trade union organizations and employer organizations), with a potential that has not yet been fully realized, and whose scope will depend largely on the will of the parties and their readiness to maintain mature and productive dialogue in dealing with the enormous challenges they face.

## Introduction

The magnitude of the climate change issue, along with the interconnected transformations in production systems, require a search for solutions which will help meet these challenges and guide the necessary production transitions while guaranteeing social cohesion, participation in the decisions made by the protagonists of these changes—workers and employers and institutions—and taking advantage of potential benefits in terms of job creation.

To address this matter the International Labour Organisation (ILO) has launched the Green Jobs Programme<sup>1</sup> with the goal of analysing the relationships between environmental challenges (with climate change as a clear example) and the world of work. The Director General of the ILO, Juan Somavia, has repeatedly emphasised the importance of this line of work, as well as the value of effective dialogue which is inclusive of the different social actors, addressing the economic and social transitions that affect the world of work and facilitating these transitions in a just way for all, along the lines of the Decent Work Agenda. This just transition applies equally to the adaptation processes, the effects of climate change and other environmental challenges, as well as the changes necessary to reduce greenhouse gas emissions (GHGs) and other sources of environmental contamination, assuring that the transition is made in such a way as to maximise opportunities and reduce difficulties, guaranteeing decent work for all.

As a response by the world of work to the current economic crisis, the Global Pact for Employment (GPE), agreed to in June, 2009 by the 183 Member States of the ILO's International Conference on Work, recognizes social dialogue, the encouragement of expression and participation, as well as the promotion of green jobs, as critical for recuperation and development. The GPE was adopted “with the objective of orientating national and international policies designed to stimulate economic recovery, to generate employment and to protect workers and their families in a scenario of crisis which has provoked the collapse of many enterprises and generated a rise in unemployment, poverty and inequality.

In this context, the ILO, in collaboration with the Sustainlabour Foundation, the International Foundation for Sustainable Development<sup>2</sup>, have proposed to undertake this case study on the social dialogue roundtables initiative<sup>3</sup>, created in Spain as a mechanism of participation and monitoring of compliance with the Kyoto Protocol and the norms and standards derived from it with the objective of analysing the effect of these norms on employment, competitiveness and social cohesion.

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<sup>1</sup> <http://www.ilo.org/integration/themes/greenjobs/lang--en/index.htm>

<sup>2</sup> <http://www.sustainlabour.org/index.php?lang=sp>

<sup>3</sup> Roundtables of Social Dialogue, Employment, and Social Cohesion of the Compliance of the Kyoto Protocol in Spain. The framework of these roundroundroundtables of social dialogue was established in article 14 of the Law 01/2005 regarding the rules of comercialisation of the rights of emission of greenhouse gases, with the objective of “guaranteeing the participation of the labour unions and employer organizations on the elaboration and follow-up of the National Plan for GHG Emission Allowance Allocation as regards its effects on competitiveness, employment stability and social cohesion”.

The context in which these roundtables were initiated is particularly important, for, in accordance to the commitments entered into under the Kyoto Protocol for 2012, Spain is entitled to increase its GHG emissions by 15% above its 1990 emission levels. By 2008, however, accumulated increases already exceeded 50%. Spain must therefore drastically reduce emissions to arrive at levels that comply with its international commitments.

The necessary change of tendency began in 2006, the year in which emissions were reduced by 1.8%, in a context of 3.9% GDP growth. In 2008, total emissions of sectors subject to emissions trading declined by 12.4% over the preceding year, largely due to the world economic crisis, which has had particularly severe effects in Spain on account of the gravity of the situation in the construction sector, high rates of unemployment and the marked contraction of household consumption. The economic prospects for 2009 make it likely that emissions will again decline, but the challenge will be to consolidate this reduction in emissions once the economy recovers.

Along with the need to consolidate the declining emissions trend, we should also consider the new perspectives regarding the post-Kyoto period beginning in 2012, when new obligations and commitments will be introduced both for developed nations and for those in development. These will have important effects in both positive and negative directions on employment.

Spain has implemented a series of norms and standards, as well as plans to tackle this challenge, including the Emissions Trading Scheme Directive, a transposition of the corresponding European Directive, and the two National Allocation Plans (NAP), likewise deriving from the Directive, which establish emission allowances for particular sectors: electricity, oil refining, iron and steel, cement and lime, ceramics, pulp and paper, and glass and frits.

The social dialogue roundtables were established to fulfil and guarantee the compatibility of the objective of emissions reductions with those of social cohesion and economic development. A general roundtable and seven sectoral roundtables were set up as a space for participation in which government and trade unions and employer organisations could analyse the potential social and economic consequences deriving from the implementation of measures to comply with the Kyoto Protocol, and in particular its impact on competitiveness, employment and social cohesion. Another roundtable was added in 2007 for the diffuse emissions sector; while it is not covered by the NAP, this sector is responsible for a growing percentage of emissions.

We intend to consider not only the value of the dialogue roundtables as an instrument of participation, but also to analyse their potential in responding to the challenges and opportunities posed by the different economic sectors covered by the emission allowance trading scheme. The temporal context for the study could not be more appropriate. Governments are currently discussing in the framework of the United Nations the international agreement that will succeed the Kyoto Protocol, from 2013, in defining measures to combat climate change in general and, in particular, to quantitatively reduce GHG emissions. It is the opportune moment to identify which tools from the world of work and social dialogue can facilitate the necessary transitions and consider whether the Spanish roundtables are an experience that should be taken into account.



Moreover, the gravity of the economic recession in Spain and its devastating effect on employment make it more urgent than ever to create spaces to promote change in the current production model. The current challenge is to design policies that respond simultaneously to the economic crisis, the environmental crisis and the social crisis (characterised by widespread unemployment), ensuring that the measures adopted are successful in directing the country towards an economic model that is more sustainable in economic and social development terms, including the objectives of generating jobs and reducing environmental impact.

The roundtables have proved their usefulness as a space for dialogue between the parties, and participants are of the view that they could serve as a valid model for other countries facing similar challenges, particularly in Europe. In this study we have also sought to analyse the limitations and obstacles which hamper the realisation of their full potential, the opportunities which the model presents for its application in other spheres, the direct and indirect benefits for the three parties involved, etc.

The main part study was conducted in 2007. The first stage consisted of compiling and analysing documentation and relevant regulatory instruments: European directives, Spanish legislation, minutes of meetings, etc. The second stage focused on in-depth interviews with key actors who participated in this process from the outset. In 2009, information was brought up to date. New interviews were conducted to introduce the newly-established diffuse sectors roundtable, as well as to update data and conclusions.

The interviews carried out two years later made it possible to identify achievements and ascertain the extent to which expectations had been fulfilled.

A total of 15 interviews were conducted in 2007 with representatives of all sectors covered by the NAP, and of the three parties involved: Government, including the Autonomous Communities<sup>4</sup>, trade unions and employer organisations. Six interviews were conducted in 2009, two with each of the parties. Two of these interviews concentrated on the diffuse emissions sector and four on the sectors already included in the study.

The study is arranged into seven Chapters, which we describe below.

**Chapter 1** briefly presents the Spanish national context, as regards the commitments entered into by Spain under the Kyoto Protocol: emissions generation, the challenge of reversing the rising emissions trend and the legal and institutional framework in place.

The dialogue roundtables are described in detail in **Chapter 2** in terms of their legal status, operational norms, objectives, composition, competences, etc.

**Chapter 3** is devoted to sectoral analyses. An outline is given of the economic and employment scenario for each of the sectors covered by the NAP, as well as the challenges faced by the respective sectors in

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<sup>4</sup> The Spanish State incorporates highly decentralized Autonomous Communities. Powers relating to many of the areas covered by the policies under discussion are exercised by these regional bodies. Although the central Government exercises exclusive authority over the NAP's, the Autonomous Communities are largely responsible for implementing related policies.

seeking to achieve NAP compliance and possible future scenarios. A graph summarising the indicators produced in each of the sectoral roundtables is included.

**Chapter 4** covers the establishment of the diffuse sectors dialogue roundtable; participants could not be included in the initial interviews, given that this roundtable did not yet exist. This chapter conveys the opinions of interviewees during the second phase, once the diffuse sectors dialogue roundtable had been established, in regard to objectives, prospects and achievements of the roundtables. It also describes the evolution of emissions in the sector and various measures. Finally, it offers a summary of existing plans to reduce emissions.

**Chapter 5** analyses the results achieved through interviews with participants in the social dialogue roundtables in terms of how they function, general and sectoral challenges and opportunities, impact on government policies, proposals emanating from the roundtable discussions, follow-up on the agreements, differences between sectors and future prospects.

**Chapter 6** describes some initiatives of the trade unions and employer organizations, which have been motivated by the challenge that complying with the NAP represents for the affected sectors and the incentive that the sectoral roundtables represent in many cases for a better understanding and dialogue between the parties. These initiatives have been structured in parallel fashion with the goal of raising awareness, fostering understanding and promoting a greater participation of their associates in these spaces.

**Chapter 7**, by way of conclusion, we reflect on the value of the sectoral social dialogue roundtables, their principal outcomes, contributions and potential, as well as some ideas on how to improve their effectiveness and expand the scope of their proposed objectives. This chapter highlights the usefulness of this instrument as a means of sharing knowledge between the most prominent social agents, thereby ensuring that informed decisions are taken that are more socially appropriate than if they had been made without dialogue. This is particularly important at this moment of discussion regarding future agreements, which will draw the battle lines in the fight against climate change in the decades to come.

## **Study guide. Key questions and answers.**

### **1. Why were the roundtables created?**

The social dialogue roundtables are the result of an agreement reached between the Government and trade unions and employer organisations to establish mechanisms that would make possible the analysis of the impacts on employment and to tackle the commitments under the Kyoto Protocol and their consequences for competitiveness and employment.

The roundtables were established as a mechanism to guarantee and benefit from the the participation of social agents in the process of formulating and following up on the NAP for GHG emission allowances, in terms of their effect on competitiveness, job stability and social cohesion.

There are eight roundtables in all, one general and seven sectoral roundtables: one for each of the sectors covered by the NAP: electricity, refining, cement and lime, glass and frits, ceramics, iron and steel and coke ovens, and paper. A ninth roundtable was added in September 2007, covering diffuse sectors<sup>5</sup>, which are not covered by the NAP.

### **2. Who launched this initiative?**

The initiative originated with the trade union organisations, with the support and commitment both of the Government and of employer organisations, as articulated in point 7 of the Social Dialogue Declaration.

### **3. What is the initiative's mandate, legal status, composition, and mode of operation?**

The establishment of the roundtables was provided for in Law 01/2005, in the context of the emission allowances trading scheme. This was enacted through Royal Decree 2002/2006, which defines its competences, composition and functioning.

The roundtables are tripartite in nature, with the participation of six representatives of each of the parties. The sectoral roundtables may also include representatives from the Autonomous Communities where the sector in question has a substantial presence.

The general roundtable serves the purpose of gathering and combining the proposals emanating from the sectoral roundtables, considering these proposals, and forwarding them to the relevant Government departments. The sectoral roundtables follow-up on the proposals for each of their sectors.

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<sup>5</sup> The diffuse sectors cover GHG emission generating activities that do not fall within the scope of application of Act 1/2005, of 9 March, which regulates the GHG emission allowance trading scheme in Spain.

#### **4. What is the relationship between the roundtables and policy decision-making on climate change?**

No binding connection exists between the roundtables and the bodies responsible for climate change policy; the Government has, however, demonstrated a willingness to listen to the agreements and disagreements voiced during the roundtable discussions into its decision-making process.

#### **5. What are the specific challenges and opportunities identified for specific sectors in terms of competitiveness and employment?**

Overall, the challenge faced by sectors is that they must restrict their emissions in a context of energy efficiency and emissions intensity that allows little room to introduce improvements. Specific problems were identified at some installations in complying with the provisions of the NAP, but none of the participants identified any major impact on competitiveness or employment.

#### **6. What information is used for discussion in the roundtables and how is it obtained?**

The information is provided mostly by the Government and, to date, has been based on emissions verification data.

In 2007, it was proposed that specific indicators considering not only emissions, but also competitiveness and employment, be formulated to make it possible to track the evolution of the sectors.

This stage of formulating and tracking specific indicators has required—and will continue to require—the input of detailed and quality information and data from all the parties involved.

#### **7. What measures are proposed to meet challenges, prevent or attenuate negative effects and enhance opportunities for employment?**

The measures proposed include the formulation of indicators for monitoring the evolution of emissions and employment in different sectors; conducting dialogue roundtables on a more regular basis; establishing a diffuse sectors roundtable; setting up working groups to analyse indicators and submit proposals to the roundtables, or the progressive inclusion of indirect employment figures in statistics.

No impacts requiring action were identified during the first phase of the study. Although some sectors or subsectors such as ceramics expressed concern in regard to potential negative effects in the sector, these did not materialise. The proposal to formulate specific indicators proved to be an important development which will henceforth make it possible to propose measures and solutions in response to potential impacts.

## **8. What measures are being implemented? With what results?**

To date, the main proposal submitted by the roundtables to the Government has been that indicators should be formulated and a diffuse sectors roundtable established in order to initiate a discussion about the challenges with organisations in the sectors that are not covered by the NAP.

These proposals were taken up by the Government, which established the roundtable and invited the actors involved to an initial meeting in September 2007 to formulate a series of indicators on the basis of the data submitted by the various organisations. The request to hold roundtables more frequently has not, for the moment, been considered opportune.

As regards the new diffuse sectors roundtable, it is being suggested that a work programme might be formulated to analyse the extent to which measures to combat climate change have been implemented, and the resulting effect on employment, in addition to the establishment of working groups by subsectors, with a view to optimising discussions.

Other measures promoted by the sectoral roundtables include the incorporation of explanatory parameters such as imports, exports, energy efficiency ratios and employment in order to facilitate the assessment of impacts on competitiveness and employment.

## **9. What are the roundtables' perceived strengths and weaknesses?**

At the present time, the roundtables are beginning to yield their first results, which include:

- The formulation of specific indicators which make it possible to track the evolution of the sector in terms of emissions, competitiveness and employment.
- The establishment of a diffuse sectors roundtable, in September 2007.
- The gathering and disaggregation of specific data by the central Government (AGE), thereby permitting tracking by sectors and installations, which is not possible in some cases with the data available at the time.

All of the actors interviewed have a positive view of the space of the dialogue roundtables, considering them to be an innovative instrument with huge potential for the future.

They consider the roundtables to be an extremely useful instrument for exchanging information, sharing concerns and requests, and tracking the evolution of the different sectors. In addition to its contribution to building knowledge among the parties, they also constitute an element of motivation for some of them (in particular for the trade union organisations).

Above all, the interviewees underline the initiative's contribution to dialogue and an understanding of the challenges encountered by the sectors, thereby reducing the risk of conflict. During the early years of NAP implementation, they have had a calming effect and played an informative role for all three parties

(the trade unions, employer organisations and the Government) as regards the potential impact of implementation on these sectors.

After a few years of activity, it is clear that information is flowing more readily; the participation of industry, initially the most reluctant, has become more active, and the roundtables are serving as a “seed” for initiatives and measures that are being implemented in other forums.

The three parties involved were of the view that the process has made a great contribution:

- trade union organisations emphasise their democratising and participative nature,
- employer organisations underscore the possibility of voicing demands and explaining their concerns, and
- the Government highlights the effectiveness of the space in encouraging the flow of information and identifying early warning signs of possible conflict or undesired impacts.

#### **10. What is the future of the dialogue roundtables in Spain?**

The fact that the roundtables were established by Royal Decree confers an institutional legitimacy and guarantees their continuity. Nevertheless, the mere existence of a legal instrument does not guarantee democratic and participatory dialogue; their continuation as an instrument will be dependent upon the goodwill of the parties in maintaining an attitude of mature and productive dialogue. In this spirit the three parties have expressed an interest in their continuation and acknowledge their usefulness at this stage of the debate on climate change policies in post-Kyoto Europe.

#### **11. What are the possibilities of replicating the roundtables in other countries?**

This is an experience that can readily be replicated in countries which have a culture of dialogue and operational institutions which can accommodate this type of process.

Replicability in the European context is relatively easy to assume, given that appropriate conditions exist for their implementation: a tradition of tripartism and a common environmental policy framework. As the roundtables constitute a very useful tool in areas directly suffering the effects of climate change and/or in the process of regulating climate change, these countries should react rapidly, involving all stakeholders in order to ensure that economically and socially viable measures are adopted.

They could also serve as a model for other geographical contexts and other aspects of climate change such as adaptation, where approaches of this nature might guarantee that the measures adopted are appropriate in “socio-employment” terms.

# 1 – Context

## *1.1.- Climate Change and the Kyoto Protocol*

Climate change is one of the principal challenges of our age; it is not only an environmental problem of planetary dimensions but also jeopardizes the very survival of contemporary society, over and above its effects on production and employment.

Some two decades ago, scientific circles began to speak of the dangers of anthropogenic interference in the climate system resulting in a constant increase in GHG concentrations due, primarily, to massive consumption of fossil fuels. At that time, attention was already being drawn to the need to place this topic on the international agenda.

In June 1992, one of the principal outcomes of the United Nations Conference on Climate Change and Development (UNCCD), also known as the Earth Summit or Rio '92, was the adoption of the United Nations Framework Convention on Climate Change (UNFCCC), constituting a commitment on the part of the international community to tackle this issue and formulate preventive mechanisms. The UNFCCC includes the objective of the "stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner".

The Framework Convention channelled its objectives through the Kyoto Protocol, agreed to in 1997, which is the principal world agreement to combat climate change. It establishes the commitment of the industrialised countries <sup>6</sup> to limit and reduce their GHG emissions, through individual and legally binding objectives. The Protocol stipulates an overall emissions reduction of 5.2% against 1990 levels, for the period 2008 to 2012. For Europe, these commitments represent a reduction of 8% for the 15-member European Union and of 7.3% for the 25-member European Union.

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<sup>6</sup> Annex 1 of the Kyoto Protocol lists the 38 industrialized countries required to reduce emissions.

## **1.2 . Spain and its commitments under the Kyoto Protocol. The path to compliance.**

The burden of the EU commitments is divided between countries on the basis of their levels of economic development. Spain was one of the countries for which a limit on emission increases was established, as opposed to a reduction. Spain's commitment to the Kyoto Protocol for the period 2008-2012 is to remain within a maximum emissions increase of 15 % against its 1990 level <sup>7</sup>.

However, Spain is currently the EU country that has departed furthest from compliance with its Kyoto Protocol commitments. The growth of the economy and of energy consumption in general over the past few decades, up to 2005, have translated into an increase in GHG emissions per capita (9.6 tonnes of CO2 equivalent in 2005), although it should be noted that these nonetheless remained below the average for the European Union (EU-27 10.4 tonnes of CO2 equivalent per capita). This trend was reversed in 2006, initially through the measures adopted and, from 2008, largely as a result of the grave crisis the country is currently undergoing.

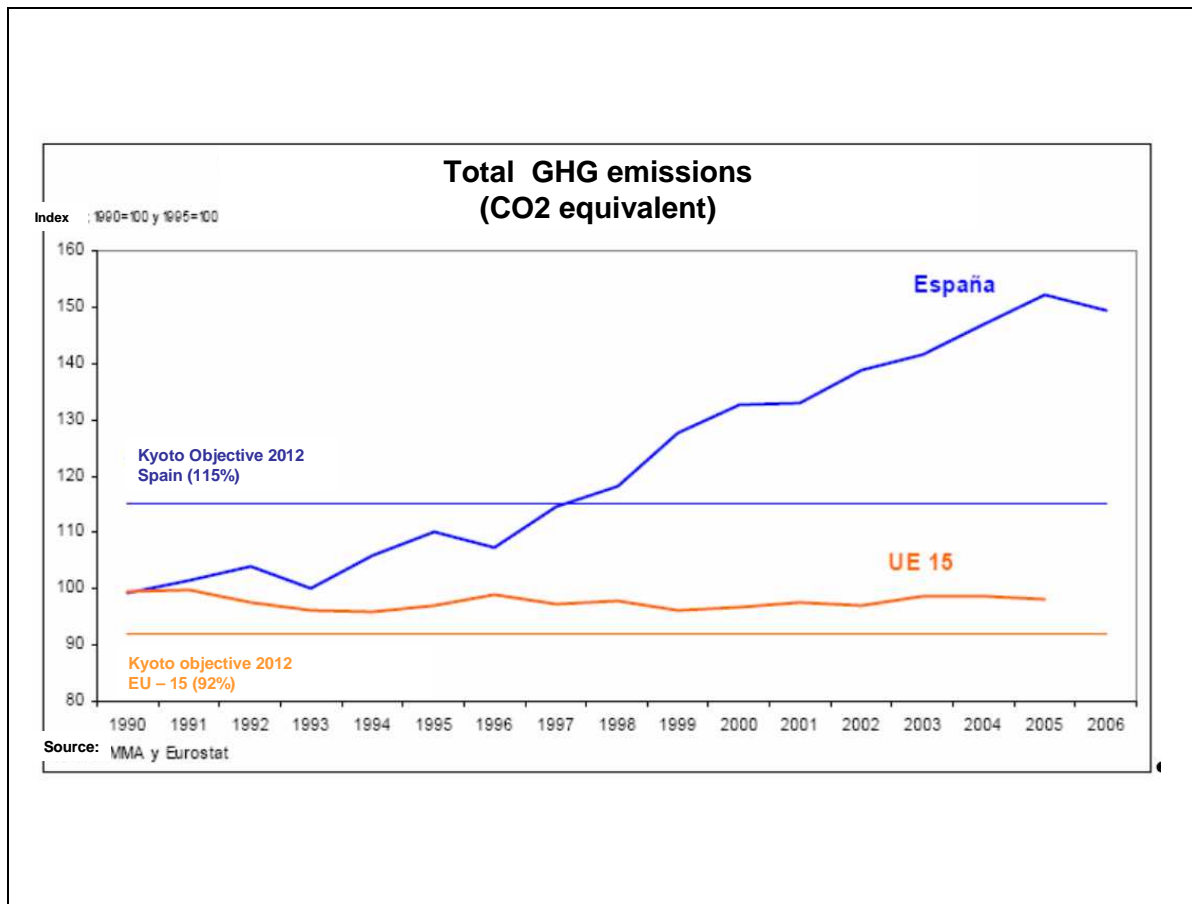
The following graph demonstrates the evolution of the main anthropogenic emissions contributing to global warming. Spain's performance figures as compared to the objective established for Spain in the Kyoto Protocol reveals a gap of 34.5 points, with total emissions growing by 49.5% during the 1990-2006 period. Total emissions declined by 1.7% in 2006 over 2005, this being the first year in which emissions declined following the signature of the Protocol. In 2007, however, emissions again increased by 1.8% over the previous year. According to information provided by the Ministry of Environment and Rural and Marine Affairs, total emissions by sectors subject to emission allowances trading declined in 2008 by 12.4% over the previous year. As mentioned above, this reduction is due largely to reduced general demand as a result of the global crisis.

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<sup>7</sup> Against 1990 for carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), and against 1995 emission levels for hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6).



**Graph 1: Evolution of emissions CO2 equivalent (1990-2006)**



A series of measures, norms and plans have been adopted in recent years to tackle this challenge and for reasons relating to the security of the energy supply, including the Spanish Energy Saving and Efficiency Strategy 2004-2010 (E4) and its Plan of Action 2005-2007 and 2008-2012; the Plan to Promote Renewable Energies for the period 2005-2010; two National Allocation Plans (NAP); the 2005-2011 Review of the Electricity and Gas Sectors Plan; the Spanish Climate Change and Clean Energy Strategy 2007-2012-2020, Act 5/2009 expanding the emission allowances trading scheme; etc.

Even taking into account the potential for efficiency gains foreseen with the implementation of the legal and planning instruments listed above, as well as the current economic circumstances, emissions in Spain between 2008-2012 will be almost 40% higher than during the base year<sup>8</sup>. Given this, it is difficult to assess the extent to which emissions will be reduced by the profound situation of crisis the country is currently undergoing, and which may continue for some time.

<sup>8</sup> Ministry of the Environment and Rural and Marine Affairs: National Inventory of Atmospheric Pollutants Emissions and Projections to 2020. (03/2009) National GHG Inventory. Series 9090-2007. <http://cdr.eionet.europa.eu/es/eu/colqfqaq/envsbjixg>.

The National Emissions Allocation Plan, deriving from the application of the European Directive on Emissions Trading (2003/87/EC), considers the scenario of an emissions increase of 37% for 2008-2012. In order to comply with its Kyoto Protocol commitments Spain would need to resort to the flexibility mechanisms stipulated in the agreement. Thus, the 2008-2012 NAP opts to use carbon sinks (2%)<sup>9</sup> and flexibility mechanisms (20%)<sup>10</sup>, thereby meeting the +15% commitment established in the Protocol (NAP 2008-2012).

**Graph 2: PROJECTED GHG EMISSIONS**

	Year	CO2 equivalent (kt)		
		Base Scenario or w/out measurements	Base Scenario or with measurements	Objective Scenario or with additional measurements
GHG (kt CO2eq)	Average 2008-2012	492,611	405,018	395,785
GHG(% against base year)	Average 2008-2012	70.00%	39.77%	36.58%

Source: Ministry of the Environment and Rural and Marine Affairs

<sup>9</sup> “A carbon sink is any process that removes carbon dioxide from the atmosphere. A given reservoir may be a carbon sink if, over a period of time, the amount of carbon entering it is greater than the amount leaving it. In the context of the Kyoto Protocol, reference is made to the elimination of atmospheric carbon deriving from particular activities in the land-use, land-use change and forestry sector.” (NAP 2008-2012)

<sup>10</sup> With a view to acquiring the necessary credits on international markets, the Spanish Government has instituted a series of purchasing instruments through: an agreement with the World Bank (2004); Clean Development Mechanism in the Latin American and Caribbean region through agreements with the Andean Development Corporation (CAF) and the Inter-American Development Bank; draft agreement on participation by Spain in the European Investment Bank-European Reconstruction and Development Bank’s Multilateral Carbon Credit Fund (MCCF).

### **1.3.- Towards emissions reduction. Institutional and legal framework.**

On the basis of the Kyoto Protocol, a series of Spanish and European standards have been adopted. Within the European Union, the European Directive on Emissions Trading (2003/87/EEC) came into force in 2003, establishing the European legal framework for implementing one of the flexibility mechanisms provided for in the Protocol.

The sectors affected by the European Directive account for approximately 42% of GHG emissions within the European Union. The Directive provides that the companies involved are allowed an emission allowance "free of charge" and can trade surplus allowances in a market that is open to European companies or purchase them from others if they have a surplus.

The system established by the Directive came into force on 1 May 2005; by that date each country should have transposed it to domestic legislation, thereby establishing its own guidelines.

Spain, for its part, transposed the Directive through Act 1/2005, adopted 9 March 2005<sup>11</sup>, which introduces the Scheme for GHG Emission Allowances Trading. Its objectives include ensuring that GHG emissions reduction is effected at the lowest marginal cost. Act 1/2005, Chapter IV, article 14, lays down the general criteria and legal procedures for drafting and adopting the National GHG Emission Allowances Allocation Plan-NAP, and for the establishment of "social dialogue roundtables" as an instrument for the participation of trade unions and employer organisations in monitoring the impact of the NAP in terms of effect on competitiveness, employment and social cohesion.

### **1.4.- National emission allowances Allocation Plan**

The NAP was adopted by the Government through Decree 1866/2004, of 6 September 2004<sup>12</sup>, as proposed by the Ministry for the Economy and Finance; Ministry for Industry, Tourism and Trade; and Ministry of the Environment, on the basis of a prior report by the National Climate Council (CNC)<sup>13</sup> and the Commission for the Coordination of Climate Change Policies (CCPCC<sup>14</sup>).

The NAP consolidates Spain's international emission reduction obligations, as well as relevant European and Spanish standards, and establishes a given volume of emission allowances for each of the affected installations and sectors, who may sell or buy emission allowances on the European emissions market.

Like the European Directive, the NAP covers the seven industrial sectors that consume the most energy: electricity; ceramics; paper, pulp and cardboard; iron and steel; cement and lime; glass and frits; and

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<sup>11</sup> Published in the Official Gazette no. 59 – 10/03/2005.

<sup>12</sup> Published in the Official Gazette no 216, of 07/9/2004.

<sup>13</sup> The National Climate Council (CNC), established in 2001, is the entity belonging to the Ministry for the Environment that is responsible for drafting, monitoring and assessing the Spanish Strategy to Combat Climate Change, and drafting proposals and recommendations for policies, measures to combat climate change, adaptation and mitigation strategies, etc. The CNC participates in monitoring the NAP.

<sup>14</sup> The Commission for the Coordination of Climate Change Policies (CCPCC), established pursuant to Act 01/2005, serves as coordinating body between the central Government and the Autonomous Communities in implementing the D emission trading scheme established by the Act.

refining. This involves a little more than 1000 installations and accounts for 45% of total GHG emissions in Spain. The criteria used in allocating emission allowances by sector include the consideration of each sector's technological capacity to boost energy efficiency and reduce emissions and their exposure to international competition.

Two phases were established, the first from 2005 to 2007, with the objective of holding emissions at 2002 levels (1990+40%). We are currently halfway through the second phase, 2008-2012, with the objective of achieving a global reduction of 37% over 1990.

The NAP 2005-2007 grants between 93 and 97% of sectoral petitions; a greater effort is required of the electricity sector, which is less exposed to international competition and where technological possibilities for achieving reductions are greater. Although a global emissions deficit occurred for allowances in the first phase (-6.3% in 2005 and -2.3% in 2006), preliminary data demonstrate that, overall, sectors received sufficient emission allowances and have complied with the administrative requirements under the Plan.

**Graph 3. Allowances under the NAP 2005-7 v. NAP 2008-12**

	Average emissions 2000-5	NAP Allocation 2005-7	NAP Allocation 2008-12	Allocation variation between NAPs
	Mill. t CO <sub>2</sub> /year	Mill. t CO <sub>2</sub> /year	Mill. t CO <sub>2</sub> /year	%
	(A)	(B)	(C)	(D)
<b>Electricity generating installations (thermal power &gt; 20MW)</b>	91.30	85.40	54,42	-36.28%
<b>Cogeneration installation</b>	10.03	13.00	12.04	-7.41%
<b>Other installations with thermal power &gt; 20 MW</b>	6.41	10.14	5.63	-44.45%
<b>Hydrocarbon refineries</b>	15.14	15.25	16.13	+5.79%
<b>Coke ovens, steel production, mineral synthesis</b>	10.86	11.23	12.21	+8.74%
<b>Cement and lime</b>	28.27	2.99	31.25	+4.19%
<b>Glass and frits</b>	2.61	2.93	2.83	-3.24%
<b>Bricks, roof tiles and floor tiles</b>	6.01	5.65	5.80	+2.62%
<b>Paper and cardboard</b>	4.31	5.30	5.48	+3.49%
<b>Reserve for new entrants</b>	--	3.29	6.28	+90.56%
<b>Total</b>	<b>174.94</b>	<b>182.18</b>	<b>152.25</b>	<b>-16.43%</b>

Source: Ministry of the Environment and Rural and Marine Affairs of Spain

The second phase of the NAP runs from 2008 to 2012<sup>15</sup>, and is intended to achieve a reduction consistent with the Kyoto Protocol commitments while preserving competitiveness and employment in industry and respecting economic and budgetary stability. As mentioned above, the second stage predicts that average emissions will not exceed 1990 emissions by over 37%.

<sup>15</sup> The NAP 2008-2012 was adopted by the European Commission in July 2007. Published in the Official Gazette no. 174, of 21 July 2007.

The allowances allocated represent a 19.3% global reduction over the first phase of the NAP. The chapter devoted to an analysis of the individual sectors will provide a detailed breakdown of allowances by sector. In 2008, the sectors subject to the European Directive on emission allowances trading reduced CO2 emissions by 12.4% and posted a 5.9% deficit between allowance allocations and emissions generated.

## ***1.5 – The NAP, participation and social dialogue***

Act 01/2005, article 14, provides that the NAP shall take due account of observations and claims made, either directly or through established channels of consultation and participation, in particular those corresponding to the affected sectors.

In light of this provision, and in the context of the current government's renewed commitment to social dialogue, the first and second phases of the NAP have both been formulated on the basis of a process of consultation and participation of the different social actors and administrative bodies. Below we present in detail the respective phases of the process of formulating and adopting the NAP 2008-2012.

The stage preceding the formulation of the draft included meetings between the central Government (AGE) and sectoral associations representing the installations potentially affected, and individualised consultation with non-associated companies. These meetings were held between February and July 2006. A public consultative process was also undertaken on the basis of a form posted on the Internet, for a period of 20 working days, which received 300 responses.

Following its adoption by the Government, the NAP was approved by the European Commission, thereby confirming distribution by sector. This was followed by a period for challenges by any interested party who could request changes in allocations among affected installations, although not in regard to the total allowances allocated to the sector. The month of August 2007 was the designated challenge period.

Lastly, follow-up to the NAP is undertaken through social dialogue roundtables (general and sectoral), thereby guaranteeing participation of the sectors and agents involved, the CNC and the CCPCC.

It is important to underline the role of the CNC in regard to Spanish climate change policies in general. The CNC is the collegiate body that brings together the different departments of the central Government and the Autonomous Communities, the Spanish Federation of Municipalities and Provinces, representatives from these spheres of research, and social agents and NGOs.

The following table provides a simplified rendering of the logical sequence of NAP 2008-2012 approval and follow-up, together with existing participation mechanisms and actors involved in the process.

**Table 1: Process of formulation, adoption and monitoring of the NAP 2008-2012**

Stage of NAP	Mechanisms / Procedures	Actors involved
1 – Preparation of draft	Sectoral meetings	Government Sectoral Associations Undertakings potentially affected
	Public consultation (Internet)	General public
2 - Formulation of Draft	-	AGE – Interministerial Climate Change Group (GICC)
3 – Observations and remarks on the draft	Specific meetings of the CNC and CCPPC. Formulation of the Government’s preceptive report	AGE, Autonomous Communities, Spanish Federation of Municipalities and Provinces, Representatives from research circles, social agents and non-governmental organisations
	Public consultation (Internet)	General public
4 – Adoption of the first version of the NAP	-	Government
5 – Approval by the European Commission	-	European Commission
<b>NAP Publication / Royal Decree</b>		
6 – Challenges by installations	Own administrative resources	General public
7 – Follow-up	Social dialogue roundtables (general and sectoral)	AGE Autonomous Communities Trade union organisations Employer organisations
	CCPPC	AGE and Autonomous Communities
	CNC	AGE, Autonomous Communities, Spanish Federation of Municipalities and Provinces, Representatives from research circles, social agents and non-governmental organisations

## 2 - Introduction to Social Dialogue Roundtables

### 2. 1 .Legal framework

The social dialogue roundtables constitute a space for reflection in which the Government and trade unions and employer organisations participate for the purpose of monitoring, analysing and proposing solutions for potential social and economic impacts, in particular on employment and competitiveness, deriving from the implementation of norms and standards, plans and measures to achieve compliance with the Kyoto Protocol.

This initiative emanated from the social dialogue process promoted by the Spanish Government since 2004. In its Declaration in support of Social Dialogue, paragraph 7<sup>16</sup>, the Government and participating trade unions and employer organisations agreed to discuss the development of commitments and the potential ramifications of the Kyoto Protocol for production activity and employment.

The constitution of the social dialogue roundtables was established in Act 01/2005, article 14, on the GHG emission allowances trading scheme, with the objective of *"guaranteeing the participation of trade unions and employer organisations in the drafting and follow-up of the National Allocation Plan in terms of its effects on competitiveness, stability of employment and social cohesion"*.

The NAP further established that *"in order to analyse the potentially adverse effects, in particular in terms of employment, dialogue roundtables will be established at the global level and in each sector of activity in which they apply, in conjunction with the Government, and their representative trade unions and employer organisations"*. (Chapter 7: public information procedure).

Lastly, Royal Decree 202/2006<sup>17</sup> was adopted in February 2006 to comply with the above-mentioned legal provisions and to regulate the composition and functioning of the social dialogue roundtables. The text, based on the outcome of prior consultation with the most representative trade unions and employer organisations, reflects the consensus achieved in the Social Dialogue Declaration.

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<sup>16</sup> Declaration in support of Social Dialogue was signed 8 July 2004. The employer component was represented by CEOE and CEPYME and the worker component by UGT and CCOO.

<sup>17</sup> Published in the Official Gazette, no. 51, of 1 March 2006.



The roundtables were configured as a space for "reflection"<sup>18</sup>. Its principal purpose is to predict the following impacts as accurately and as early as possible:

- the adverse consequences that might derive from compliance with the Kyoto Protocol, above all in relation to competitiveness, employment and social cohesion;
- the most efficient and least costly alternatives, in terms of competitiveness, employment and social cohesion, for complying with the Protocol; and
- the opportunities that may arise from compliance with the Kyoto Protocol for the development of the Spanish economy in general and for the production sectors affected in particular.

Initially, one general roundtable and seven sectoral roundtables were established, corresponding to the sectors affected by the European Emissions Directive and the National Allocation Plan: electricity; refining; iron and steel and coke ovens; cement and lime; glass and frits; ceramics; and pulp, paper and cardboard. An eighth sectoral roundtable was established in late 2007, corresponding to the diffuse sectors of transport and residential which, although not covered by the NAP, nonetheless account for over 35% of GHG emissions in Spain.

An institutional link exists between the sectoral roundtables and the general roundtable; the latter serves to articulate the proposals and demands of the sectoral roundtables, and subsequently forward them to the corresponding ministerial departments for their consideration.

There is not a binding character, however, between the agreements reached by the roundtables and government policy. The roundtables, whose task is to consider and track possible impacts, are considered as a mechanism to facilitate dialogue and, ultimately, as an advisory body.

## **2.2. Composition**

The Royal Decree establishes the joint tripartite nature of these roundtables, consisting of six representatives of central Government, six representatives of the most representative trade union organisations, and six representatives of the most representative employer associations.

The general roundtable is composed of trade union representatives of the UGT (General Union of Workers), CCOO (Worker Commissions), and CIG (Galician Inter-Union Confederation), and ELA-STV (Union of Basque Workers), and six employer organisations (CEOE and CEPYME) and a further six representatives of the Ministries of Environment, Labour and Social Affairs, Economy and Finance, and Industry, Tourism and Trade. The Ministries of Housing and Development are also represented on the diffuse sectors roundtable, which was established in 2007.

In addition to the above institutions, provision was also made for the possible participation in the sectoral roundtables of representatives of the Autonomous Communities (see note 1), in cases where

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<sup>18</sup> RD 202/2006, Art 2, para.2.

the economic sector dealt with by the sectoral roundtable in question is of importance in that community.

### **2.3. Competences**

The general roundtable articulates and channels the global dialogue between the Government, employer and trade union sectors on the compliance with the Kyoto Protocol as regards its effects on competitiveness and employment. Its functions include organising and coordinating activities of the sectoral roundtables and forwarding initiatives and proposals. Also, Royal Decree 202/2006, article 4, gives the general roundtable the power to establish new sectoral roundtables it deems necessary.

### **2.4. How the social dialogue roundtables work**

The general roundtable was established on 26 April 2006. The Ministry of the Environment holds the chairmanship and secretariat functions are carried out by the Ministry of Labour and Social Affairs. The sectoral roundtables are chaired by the Ministry of Industry, Tourism and Trade. They were established on the dates listed below:

- 5 July 2006: Sectoral Roundtable for Iron and Steel and Coke Ovens, Sectoral Roundtable for Cement and Lime, Sectoral Roundtable for Ceramics.
- 10 July 2006: Sectoral Roundtable for Pulp, Paper and Cardboard and Sectoral Roundtable for Glass and Frits.
- 12 July 2006: Sectoral Roundtable for Oil Refining and Sectoral Roundtable for Electricity.
- 7 September 2007: Diffuse Sectors Roundtable

To date, meetings have been held annually, although it has been suggested that they should be held on a biannual basis. By September 2009, four general roundtable meetings have been held, four meetings of sectors covered by the NAP, and three diffuse sectors roundtable meetings.

At the start, discussions focused on: a) assessing compliance with the National Allocation Plan 2005-2007 and its effects on competitiveness and employment, b) verifying the existence of problems in specific installations or deviations which need to be corrected and c) distributing emission allowances by installations once allowances for this sector have been established by the NAP and approved by the European Commission. At the present time, post-Kyoto negotiations and the formulation and implications of follow-up indicators are the focus of discussions.

Thus far, two proposals agreed upon in the sectoral roundtables have been adopted:

- 1) The development of specific indicators for each sector and subsector which make it possible to evaluate elements such as production, energy intensity, emissions, employment, exports and imports, investments and coverage ratios;
- 2) The monitoring of the execution of measures under the Spanish Strategy for Energy Savings and Efficiency (E4) for each sector and its corresponding Plan of Action, as well as the decision regarding the distribution of associated subsidies and aid.

### 3. – Sectoral diagnoses

In general, the sectors affected by the NAP have experienced strong growth over the last 10 years. They meet the European average in terms of energy efficiency and intensity of emissions, and, in some cases, are among the leaders in the European Union.

Data provided by the Spanish Climate Change Office indicate that, excluding the electricity sector, in the first two years of application of the NAP, 2005-2006, production by the affected installations grew overall by 3.21%, with a global reduction of 3.5% in emissions intensity.

In 2006, GHG emissions in Spain declined by 4.1% for the first time in many years and primary energy consumption declined by 1.3%, while the GDP increased by 3.9%. Energy efficiency also improved, as well as the uncoupling of the Spanish economy from GHG emissions. This followed upon an inverse trend (greater increases in energy consumption than in production) in previous years, which considerably hampered the possibility of complying with Kyoto.

Following a small upturn in 2007, data for 2008 again reveals an overall emissions reduction, associated this time with the situation of the economic crisis and general contraction of demand. Data issued by the Spanish Climate Change Office revealed that total emissions by sectors subject to emission allowance trading declined by 12.4% in 2008 against the previous year:

- The electricity sector, which accounts for over 50% of emissions by the affected sectors, recorded a 16.1% decline.
- The industrial sectors showed a substantial emissions reduction in 2008, of 10.2%.
- The comparative between emissions with allowance allocations for all installations affected by the emission allowances trading scheme reveals a deficit of 5.9%

#### **Employment:**

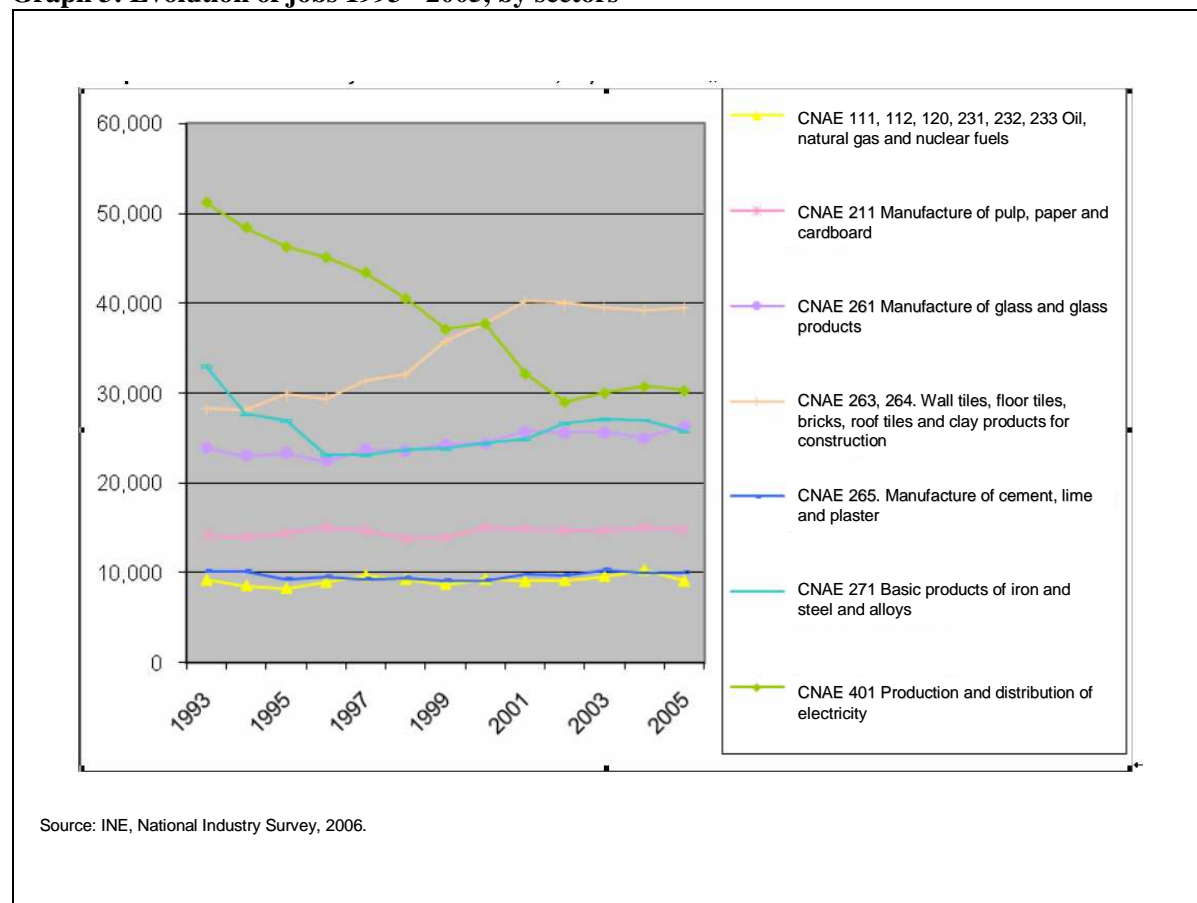
As regards job creation in Spanish industry, data issued by the National Statistical Institute (IE) and the National Industry Survey (ENI) for recent years up to 2007 indicate that annual average growth is lower than the rate of growth of the Spanish economy, which grew most rapidly in the services sector.

Overall, the sectors affected by the NAP account for close to 11% of all jobs in Spanish industry. Upon analysing aggregate value added and investment in these sectors, their importance within the industrial sector as a whole grows (23% and 29% respectively). From 2008 onwards, job loss figures are impacted by the grave national and global economic situation, which makes it difficult to evaluate the extent to which these figures are impacted by the NAP.

According to ENI data<sup>19</sup> for the sectors covered by NAP, those connected with construction generated jobs at a higher rate than the industrial average, particularly in the sector of “wall tiles, floor tiles, bricks, roof tiles and clay products for construction”(CNAE 264, 264). The sectors of "manufacture of glass and glass products" (CNAE 261), and "basic iron and steel products" (CNAE 271), while growing less substantially, still showed rates above the average.

The sector of "production and distribution of electricity" (see CNAE 401) reveals a sharp drop in the number of persons employed between 1993 and the present day. Part of this decline identified by the ENI corresponds to the transfer of jobs to subcontractors, a fact which is not reflected in the survey but is identified by organisations in the sector. This means that the loss of jobs is not as extensive as it initially appears, although the laboral precarity is.

**Graph 3: Evolution of jobs 1993 - 2005, by sectors**



<sup>19</sup> It should be noted that the ENI categories do not always correspond fully with sectors as defined by the NAP.

While an analysis of the above data reveals a trend of growth in employment in the affected sectors, it should nonetheless be clarified that no data is available on the number of jobs effectively impacted by the NAP, given that not all installations in the sector are included in the plan.

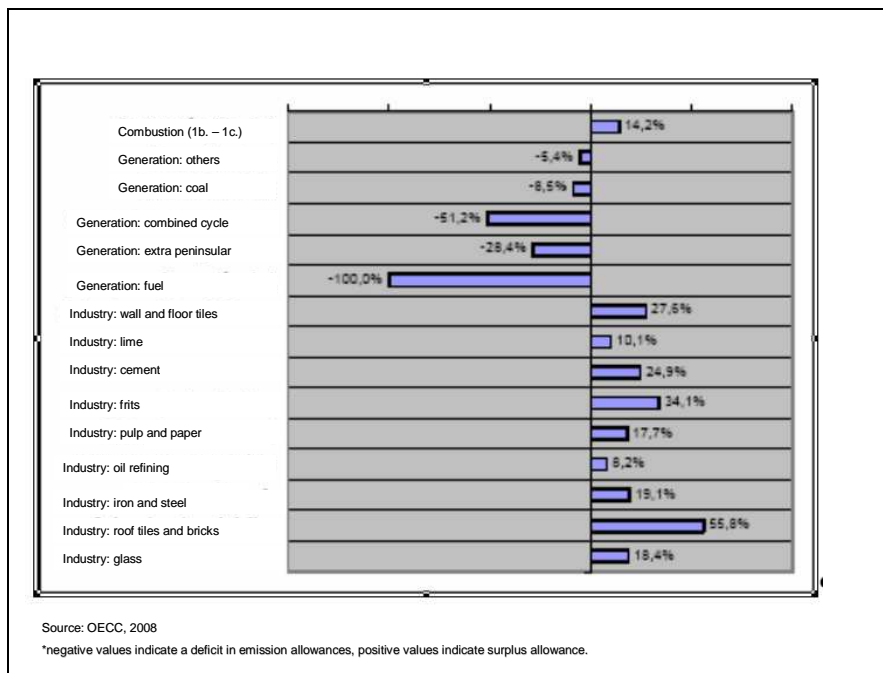
At the time that the study was being completed, the Ministry of Labour and Social Affairs was finalising its compilation of data disaggregated by affected sectors and installations. This information is extremely important for the correct assessment of the impact of NAP compliance on job creation or loss of employment.

In terms of the installations affected, the NAP impacts approximately 1000 installations<sup>20</sup>, which together account for 45% of Spanish emissions. Of these 1000 installations, around 56% corresponded to installations employing less than 250 workers.

### Emissions:

As we have seen in previous pages, verification of emissions in recent years reveals that, in general, the emission allowances allocated under the NAP 2005-2007 have proven sufficient (with the exception of the refining sector and electricity generating installations). In 2008, taking into consideration all of the installations affected by the emission allowances trading scheme, the deficit amounted to 5.9%.

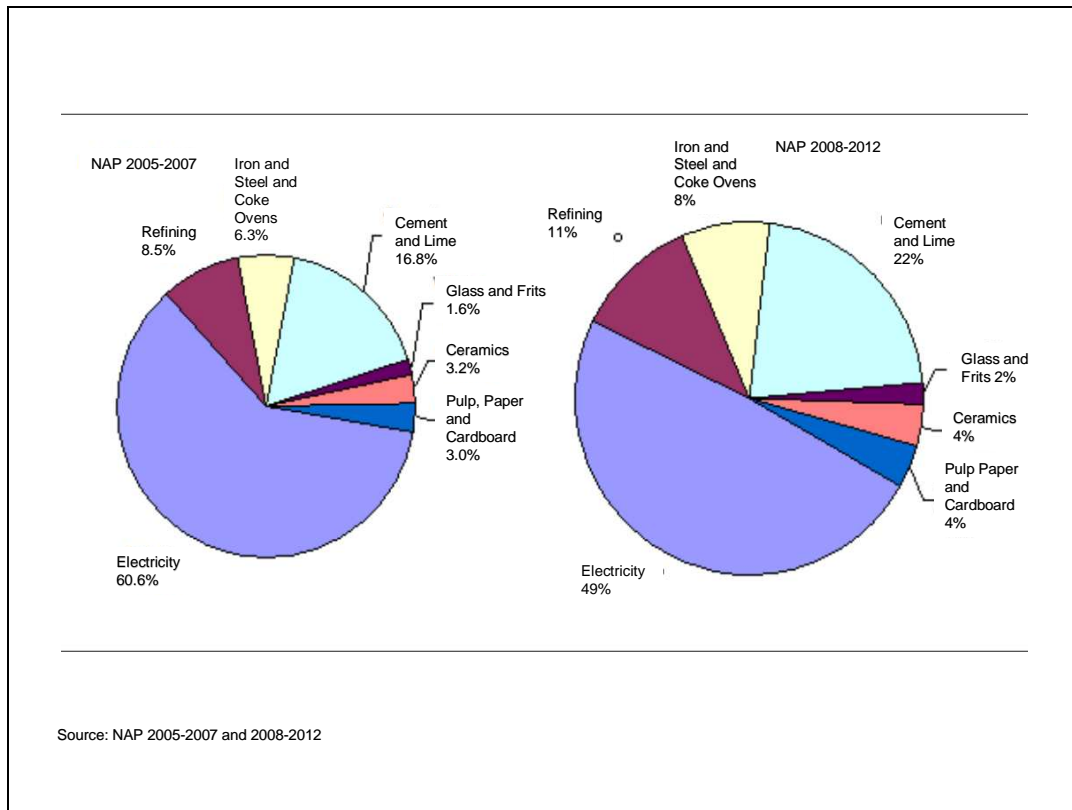
**Graph 4: Coverage of allocation by grouped sectors 2008**



<sup>20</sup> Although the NAP initially affected 957 installations, but this figure grew to over 1000 by 2007. This responds to a new European Directive which extended the scope to include other combustion installations. We will take the figure of 1000 installations for the purposes of this study.

The second stage of the NAP projects an overall reduction in emission allowances of 19.3%, which again impacts the electricity sector most severely. Graph 5 reflects the participation of each sector in the global distribution of emission allowances, which once more shows electricity to be most affected, while the remaining sectors have a higher percentage share in the total in comparison to allocations in the first stage.

**Graph 5: Participation (percentage) in the distribution of emission allowances allocated by the NAP 2005-2007 and NAP 2008-2012 - allowances sector/total allowances**



## ***Diagnosis by Sector***

### **3.1. - Electricity Sector**

Spain has experienced a sharper increase in demand for electricity than any other country in Europe. Between 2002-2007, this increase totalled 30% (6% annual average), exceeding GDP growth (3.6%) and the consumer index (3%). In 2008, the trend was reversed: emissions declined by 16.6%, primarily as a result of increased generation of eolic energy, reductions in the use of coal and the stagnation of demand.

Regarding the structure of generation, between 2000 and 2008 there was a sharp growth in the participation of the natural gas and renewable energies sectors, in the latter case due to a large extent to the boost introduced by the state through the Renewable Energies Promotion Plan 2000-2010, which included a series of incentive measures.

Energy sector planning<sup>21</sup> establishes that for 2011 coal consumption will decline and will be replaced by increased gas consumption by combined cycle plants and renewable energies.

#### **Employment<sup>22</sup>**

The planned transformations in the sector represent a major challenge on account of their potential negative impact on jobs<sup>23</sup>, given that to generate the same volume of kilowatts in a combined cycle plant requires a significantly lower number of workers than in a conventional fuel or coal plant, while the job creation ratio is higher in renewable energy production. According to estimates by trade union organizations in the sector, the implementation of the NAP has caused a substantial net loss (-21.2%). This reduction has not been traumatic for workers, but in many instances it has been for the national industrial fabric.

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<sup>21</sup> Revision 2005-2000 of the Electricity and Gas Sectors Plan 2002.

<sup>22</sup> It should be noted that most job figures are estimates by social agents, trade union organizations and employer organizations. The Spanish Government conducts the National Industry Survey, which aggregates data in a manner that does not coincide with that used by the sectors that are affected by the Directive. Fortunately, as explained later in this study, one of the first results of the roundtables has been that the Government has accepted to disaggregate job figures in a manner that coincides with NAP sectors, as requested to facilitate the development of the roundtables

<sup>23</sup> This potential job loss cannot be attributed to the NAP. No data exists as yet to bear out any suggestion that complying with the NAP has resulted in job losses in the sector.

**Table 4: Employment data from the electric sector in Spain 2001-2007.**

	2001	2002	2003	2004	2005	2006	2007	%07/01
Employment in the sector	11,344	10,934	9,481	9,374	9,267	8,126	8,955	- 21.2%

Source: Sectoral labour organisations

Transfers have been another effect; in cases where the workers impacted were not of an age to go into early retirement they opted for a transfer of activity or location, with all that this implies.

As regards job creation potential in renewable energies, data produced by the Institute for Diversification and Economic Savings (IDAE) shows that some 180,000 jobs were created between 1999 and 2006, including direct jobs, indirect jobs and operation and maintenance jobs. If the objectives of the Plan for the Development of Renewable Energies (CPR) for 2012 are achieved, the sector will accommodate 100,000 new direct and indirect jobs<sup>24</sup>. Trade union organisations in the sector draw attention to this point while pointing out that jobs in the sector are frequently more precarious and conditions inferior than in others.

#### **Emissions:**

The NAP places the greatest strain on the electricity sector, which has a greater technological potential for reducing emissions and is less exposed to international competition due to the fact that it is a regulated sector, in addition to the foreseeable evolution of the power generation *mix*.

Under the NAP 2008-2012, the electricity sector is again considered to be the sector which should make a greater effort to achieve the greatest reductions, with an allocation of emission allowances of 54.69 Mt CO<sub>2</sub>/ year and predicted emissions for the sector of 81 Mt/year for this period. This constitutes a reduction of 37% for the generating sector and 25% for the combustion sector over the NAP 2005-2007. Indicators calculated by the sectoral roundtable reveal an emissions reduction of 27.5% for the period 2005-2008.

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<sup>24</sup> According to the MITRE (Monitoring and Modelling Initiative on the Targets for Renewable Energy) Spain Report, forecasts a 95% increase in jobs (direct and indirect) for 2010 employing current measures.



**Table 3: Follow-up indicators. Electricity sector**

INDICATOR					Evolution
	2005	2006	2007	2008	2005-2008 (%)
Nº workers (1)	9,554	9,332	9,545	9,695	<b>1.5</b>
Production (GWh bg) (2)	147,211	147,329	153,912	155,610	<b>5.7</b>
Allowances allocated (KT CO2) (3)	89,518	84,783	84,971	64,910	<b>-27.5</b>
Emissions verified (KT CO2) (3)	104,624	96,921	102,144	85,930	<b>-17.9</b>
Emission intensity ratio (KgCO <sub>2</sub> /KWh bg) (3) (4)	0.71	0.66	0.66	0.55	<b>-22.3</b>
Emission intensity ratio (KgCO <sub>2</sub> /KWh bg) (5)	0.39	0.35	0.36	0.30	<b>-23.0</b>
Degree of coverage ratio (A-E)/E (%)	-14.44%	-12.52%	-16.81%	-24.46%	
Net Balance Exports-Imports (GWh)	1,343	3,280	5,750	11,039	<b>722.0</b>
Balance Exports-Imports (millions €)					

Note: indicators for production, allocated allowances, recorded emissions and the two derived ratios refer to **installations** in the sector that are involved in emissions trading. The number of workers refers to the **companies** involved in trading.

(1) Source TGSS, members as of 31 December of each year.

(2) Production, in generator terminals, by CO2 emitting installations (including combined installations) and not including cogeneration (group 1 .b)

(3) Source: Ministry of Environment and Rural and Marine Affairs. Emissions corrected to account for emissions arising from the use of siderurgical gases

(5) Emission intensity ratio for the electricity generating sector, taking into account all sources of generation, excluding cogeneration.

### 3.2. - Fuel refining

Despite efforts to improve energy efficiency, the measures implemented to this end in recent years have produced no more than an annual 1% reduction in energy consumed. Meanwhile, CO2 emissions increased by 25.6% between 1990 and 2005. Indicators submitted by the sectoral roundtable reveal an emissions reduction of 6.6% between 2005 and 2008.

#### Employment:

Data compiled by trade unions in the sector show that refineries employ approximately 6000 workers on a permanent basis; to this should be added approximately a 50% level of stable employment with subcontractors. Cyclical employment trends, particularly (annual) stoppages, are significant, as are the construction of new installations.

Data from the sector shows that compliance with the NAP will not have a significant impact on jobs and that a slight increase may be expected in response to implementation of the efficiency norms. As a result of these norms and other environmental requirements, during the 2008-2011 period the refining sector is investing approximately 6000 million euros in its refineries, with strong job creation. Practically all major engineering and construction companies in the country are involved in these projects.

Evolution for the 2005-2008 period shows a 11.4% rise, although this does not reflect the effect of the economic crisis, which becomes apparent as of 2008.

#### Emissions:

According to the NAP, the level of efficiency of refining activity in Spain is equivalent to the average for installations in the European Union and is among the highest in the Mediterranean area. Nevertheless, the percentage of diesel used in Spanish refineries is among the highest; for this reason the average combustion emissions by Spanish refineries will be higher than those in other European Union countries.

The 2008-2012 NAP projects a 5.8% increase in the sector, which requires an annual average emissions allowance of 16.13 million t CO2, representing 11.2% of total allowances allocated.

**Table 4: Refining sector-average allowance NAP 2005-2007 and 2008-2012, and number of installations affected by the NAP 2005-2007**

	Annual average allocation (MT CO2)				Installations NAP 2005-2007	
	2005-2007	% of total	2008-2012	% of total	Number	% of total
Refining	15.3	8.5	16.1	11.2	13	1.3
TOTAL NAP	178.8	100	144.4	100	1000	100

Source: NAP 2005-2007 and 2008-2012

### **3.3. - Iron and Steel and Coke Ovens**

Growth in the iron and steel sector has been closely linked to that of other sectors of industrial activity that play a large part in the economy and the level of national development (construction and public works, metallic or mechanical construction, automobile industry, home appliances, etc). It is made up of 15 business groups, and accounts for 62% of production in the Basque Country and Asturias.

According to the NAP, prior to the decline in demand resulting from the global economic crisis total steel production grew markedly in response to on-going investments, which allowed productivity indexes to be improved and energy consumption to be reduced by incorporating better technologies, which has signified a greater competitiveness in the international iron and steel market.

Nonetheless, the sector must tackle a series of major challenges on several fronts, including increases in the market share of plastics, the establishment of new installations in countries that were not formerly producers (China, in particular) and mergers between companies in the sector.

#### **Employment:**

As regards the number of workers employed in the sector, the industrial reconversion process resulted in a drastic reduction between 1975 and 1997, from some 80,000 to 25,000 workers. This trend has stabilised and shows a growth tendency in concordance with the rest of Europe.

In 2004, the sector employed some 27,000 workers, representing 2.2% of the working population, and 15% of employment in the industrial sector<sup>25</sup>. As reflected in Table 5, no negative impacts were detected in terms of job numbers in the iron and steel sector as a result of environmental measures, and the effects of the crisis have not yet been felt, although employers (UNESID) and the government both agree on an unfavourable forecast for 2009, when the effects of the contraction in demand reach the sector.

#### **Emissions:**

Energy intensity in the sector has declined substantially over the last 10 years, and estimates suggest an average specific energy consumption level of 0.20 toe/t for steel by 2010 (NAP 2005-2007).

The NAP 2008-2012 allocates annual average emission allowances of 12.2 million t CO<sub>2</sub> (8.4% of total allowances allocated), constituting an 8.6% increase in emission allowances over the previous NAP. The following table demonstrates that emissions have been reduced in both subsectors; the reduction in coke ovens was 13.25%.

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<sup>25</sup> Platea – Plataforma Tecnológica Española del Acero. “Agenda Estratégica de Investigación”. 2005.

**Table 5 a and b: Indicators. Iron and steel and coke ovens sectors**

**IRON AND STEEL AND COKE OVENS SECTORAL ROUNDTABLE**

**INDICATORS**

**IRON AND STEEL SECTOR**

INDICADOR					Evolution
	2005	2006	2007	2008	2005-2008 (%)
Nº Workers (including Coke ovens)	24,762	26,232	27,447	29,036	<b>17.3</b>
Production (T product) (2)	17,904,129	18,401,264	18,998,683	18,640,223	<b>4.1</b>
Allowances allocated(T CO2) (3)	11,495,151	11,511,889	11,558,443	12,121,480	<b>5.4</b>
Verified emissions(T CO2) (3)	11,233,370	10,998,111	11,303,427	11,042,100	<b>-1.7</b>
Emission intensity ratio	0.627	0.598	0.595	0.592	<b>-5.6</b>
Level of coverage ratio	102.33%	104.67%	102.26%	109.78%	<b>7.3</b>
Imports (T product) (4)	11,305,138	14,231,979	14,981,245	11,64,804	<b>3.0</b>
Imports (thousands €) (4)	6,612,184	8,291,766	9,606,292	8,411,437	<b>27.2</b>
Exports (T product) (4)	6,576,853	6,757,048	7,768,937	9,248,678	<b>40.6</b>
Exports (thousands €) (4)	5,505,493	6,441,550	8,266,411	8,770,074	<b>59.3</b>

Note: production indicators, verified emissions and derived ratios relate to those **installations** in the sector that are involved in emissions trading. The number of workers refers to the **companies** involved in emissions trading and the foreign trade figures relate to the iron and steel **sector** as a whole.

(1)Source: TGSS, members on 31 December of each year. Includes iron and steel and coke ovens

(2)Source: Employer Association.

(3)Source: Ministry of the Environment, Rural and Marine Affairs.

(4)Source: Department of Trade and Investment. Ministry for Industry, Tourism and Trade and Employer Association.

## SECTORAL ROUNDTABLE FOR IRON AND STEEL AND COKE OVENS

### INDICATORS

#### COKE OVENS SECOR

INDICADOR					Evolution
	2005	2006	2007	2008	2005-2008 (%)
Nº workers(1)	WORKERS INCLUDED IN THE IRON AND STEEL SECTOR				
Production (T product) (2)	278,196	229,870	289,751	314,590	<b>13.1</b>
Allowances allocated(T CO2) (3)	104,580	104,580	104,580	90,825	<b>-13.2</b>
Verified emissions(T CO2) (3)	80,784	54,370	66,485	67,152	<b>-16.9</b>
Emission intensity ratio	0,290	0.237	0.229	0.213	<b>-26.5</b>
Level of coverage ratio	129.46%	192.35%	157.30%	135.25%	<b>4.5</b>
Imports (T product) (4) (5)	93,182	132.142	125,002	144,205	<b>54.8</b>
Imports (thousands €) (4) (5)	12,974	14,037	13,929	24,929	<b>92.1</b>
Exports (T product) (4) (5)	591,883	1,028,304	1,015,726	595,920	<b>0.7</b>
Exports (thousands €) (4) (5)	113,170	186,733	179,846	153,695	<b>35.8</b>

Note: production indicators, verified emissions and derived ratios relate to those **installations** in the sector that are involved in emissions trading. The number of workers refers to the **companies** involved in emissions trading and the foreign trade figures relate to the iron and steel **sector** as a whole.

(1)Source: TGSS, members on 31 December of each year. Includes iron and steel and coke ovens

(2)Source: Employer Association.

(3)Source: Ministry of the Environment and Rural and Marine Affairs.

(4)Source: Department of Trade and Investment. Ministry for Industry, Tourism and Trade and Employer Association.

(5) Imports and exports correspond to total production of code and include Sid original Coke (constituting an additional 1.5 Mt).

### **3.4 . - Cement and lime**

The evolution of **cement** production is directly linked to that of the construction sector, more concretely to civil engineering and building. Construction activity experienced a boom during the second half of the 1990s, provoking a phase of increased cement consumption which continued between 1997 up until the current critical phase, when values dipped below 1%, when not negative, in 2009.

According to figures for the first quarter of the year provided by the roundtable meeting in July 2009, it is already apparent that emissions have declined markedly in comparison to the previous year in the industrial sectors directly associated with construction (roof tiles and bricks, wall tiles and floor tiles and cement), and, as a result of reduced production, amounts in some cases to as much as 50%. Likewise, direct employment has shrunk considerably, except in the cement sector. No data regarding the impact on indirect employment is available. The current situation is unprecedented, with the nearly generalised collapse of the sector in Spain.

#### **Employment:**

Although productivity increased by 40% prior to 2008, with a 52% profit margin, this growth was not reflected in job creation. According to the ENI in 2006, growth occurred between 2001 and 2004 (approximately 12%), after which it remained stable, at approximately 10,000 workers<sup>26</sup>.

According to indicators produced in the framework of the sectoral roundtables, the evolution of employment in the 2005-2008 period has been of a 0.6% increase in the cement sector and of 1.7% in the lime sector, followed by a sharp decline last year.

#### **Emissions:**

Important improvements have been made in the cement subsector over the past 25 years to optimise energy efficiency and to develop less energy-intensive processes and products. Thanks to these improvements, specific emissions by product have been reduced by 22% between 1975 and 2002, and it is anticipated that this reduction will continue in coming years.

According to the NAP, the margin for improved energy efficiency for the sector is limited in comparison to the major world cement producers. The Spanish sector is already 2 points more efficient than the European average. As the following table shows, emissions declined between 2005-2008 by 14.5%, which corresponds to a decrease in production.

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<sup>26</sup> The Survey figures include workers in the plaster sector.

**Table 6a: Indicators. Cement and Lime Roundtable. Cement Sector****SECTORAL ROUNDTABLE CEMENT AND LIME****INDICATORS****CEMENT SECTOR (\*)**

INDICADOR					Evolution
	2005	2006	2007	2008	2005-2008 (%)
Nº workers(1)	6,686	6,719	6,958	6,725	<b>0.6</b>
Production (T product) (2)	31,742,502	32,078,063	32,045,543	27,304,551	<b>-14.0</b>
Allowances allocated(T CO2) (3)	27,835,642	28,396,005	28,874,766	30,469,967	<b>9.5</b>
Verified emissions(T CO2) (3)	27,384,551	27,366,037	27,468,059	23,404,939	<b>-14.5</b>
Emission intensity ratio	0.863	0.853	0.857	0.857	<b>-0.6</b>
Level of coverage ratio	101.65%	103.76%	105.12%	130.19%	<b>28.1</b>
Imports (T product) (4)	10,152,332	11,729,032	13,297,776	6,926,239	<b>-31.8</b>
Imports (thousands €) (4)	483,362	586,808	720,604	411,717	<b>-14.8</b>
Exports (T product) (4)	1,423,659	1,175,955	1,161,507	2,138,295	<b>50.2</b>
Exports (thousands €) (4)	111,680	107,265	114,871	164,290	<b>47.1</b>

Note: production indicators, allowances allocated, verified emissions and the two derived ratios refer to those **installations** in the sector that are involved in emissions trading. The number of workers in the **companies** involved in emissions trading and the foreign trade figures correspond to the clinker and cement sector as a whole.

(\*) Information on production and foreign trade refer to clinker, either directly or as content in cement produced

(1)Source: TGSS, members on 31 December of each year.

(2)Source: Employer Association.

(3)Source: Ministry of the Environment and Urban and Marine Affairs.

(4)Source: Department of Trade and Investment. Ministry for Industry, Tourism and Trade and Employer Association.

Important improvements have also been introduced in the lime subsector. In recent years, this industry has improved its installations, modernising or replacing old furnaces with new ones, and combining

production in larger-capacity and more energy-efficient furnaces, thereby allowing the smaller and less efficient furnaces to be decommissioned.

According to indicators for verified omissions in this subsector, however, the 2005-2008 evolution is of a 6.2% increase.

**Table 6b: Indicators. Cement and Lime Roundtable. Lime Sector**

**SECTORAL ROUNDTABLE CEMENT AND LIME  
INDICATORS  
LIME SECTOR**

INDICADOR					Evolution
	2005	2006	2007	2008	2005-2008 (%)
Nº workers(1)	1,335	1,349	1,375	1,358	<b>1.7</b>
Production (T product) (2)	2,192,412	2,245,000	2,361,250	2,176,600	<b>-0.7</b>
Allowances allocated(T CO2) (3)	2,456,300	2,456,300	2,442,133	2,412,398	<b>-1.8</b>
Verified emissions(T CO2) (3)	2,063,211	2,205,130	2,335,782	2,191,663	<b>6.2</b>
Emission intensity ratio	0.941	0.982	0.989	1.007	<b>7.0</b>
Level of coverage ratio	119.05%	111.39%	104.55%	110.07%	<b>-7.5</b>
Imports (T product) (4)	2,929	3,349	4,747	14,610	<b>398.8</b>
Imports (thousands €) (4)	639	765	925	2,864	<b>348.1</b>
Exports (T product) (4)	146,229	163,383	172,603	158,177	<b>8.2</b>
Exports (thousands €) (4)	9,476	12,293	13,859	14,039	<b>48.1</b>

Note: production indicators, allowances allocated, verified emissions and the two derived ratios refer to those **installations** in the sector that are involved in emissions trading. The number of workers of the **companies** involved in emissions trading and the foreign trade figures correspond to the lime **sector** as a whole.

(1)Source: TGSS, members on 31 December of each year.

(2)Source: Employer Association.

(3)Source: Ministry of the Environment and Marine and Rural Affairs.

(4)Source: Department of Trade and Investment. Ministry for Industry, Tourism and Trade and Employer Association.



### **3.5. – Glass and frits**

#### **Glass:**

The glass industry in Spain is a sector in clear expansion, and it is making important investments in building capacity to meet the growing domestic market and to bolster its growing presence in foreign markets. Glass production in Spain has increased greatly above GDP growth, registering an accumulated increase over the last 15 years of 30% above that of GDP for the same period.

The sector is composed of two subsectors with clearly differentiated characteristics: flat glass and hollow glass.

#### **Frits:**

The growth of this subsector is linked to the strong growth of the ceramics and construction sectors, which stems from the boom in these two sectors in recent years, with production quadrupling since 1990.

Since 1990, all factories producing frits have employed natural gas as fuel. For this reason, the most significant improvements had been achieved in energy yield before that year, and little margin remains for any notable efficiency gains.

#### **Employment:**

As regards evolution of employment in the "manufacture of glass and glass products" sector, the ENI reports a growth rate of approximately 11% between 1998 and 2005. It is to be expected that some sectors, in particular the flat glass subsector, will experience higher rates of job creation through the implementation of energy efficiency measures, as compared to other sectors.

The glass and frits sector as a whole employs approximately 12,000 workers and has strongly felt the effects of the economic crisis. The glass manufacturing sector has suffered an employment loss of 10.9% between 2005 and 2008. In the frits subsector, job losses were only 0.3%, according to sectoral monitoring indicators.

#### **Emissions**

Overall, this sector has improved its energy efficiency over the past 10 years; in fact, it is among the leaders of the European Union in energy efficiency indices. A margin for applicable improvements still exists, however, in its installations.

The National Association of Companies of Automated Manufacture of Glass Containers-ANFEVI, reports production increases of 45.7% between 1990 and 2003, while CO<sub>2</sub> emissions rose during the same period by 22.6%, demonstrating a substantial improvement in intensity of emissions.

During the period 2005-2008, both sectors curbed their emissions, by 18.6% for the frits sector and 7.4% for the glass sector.

**Table 7 a and b: INDICATORS. GLASS AND FRITS SECTORAL ROUNDTABLE. GLASS AND FRITS SECTOR**

**GLASS AND FRITS SECTORAL ROUNDTABLE**  
**INDICATORS**  
**GLASS SECTOR**

INDICADOR					Evolution
	2005	2006	2007	2008	2005-2008 (%)
Nº workers(1)	8,741	8,552	7,965	7,792	<b>-10.9</b>
Production (T product) (2)	4,027,607	4,024,784	4,012,835	3,873,966	<b>-3.8</b>
Allowances allocated(T CO2) (3)	2,252,579	2,252,394	2,252,358	2,209,087	<b>-1.9</b>
Verified emissions(T CO2) (3)	1,993,225	1,996,937	1,974,868	1,898,859	<b>-4.7</b>
Emission intensity ratio	0.495	0.496	.492	0,490	<b>-1.0</b>
Level of coverage ratio	113.01%	112.79%	114.05%	116.34%	<b>2.9</b>
Imports (T product) (4) (5)	1,374,506	525,239	717,517	1,949,804	<b>41.9</b>
Imports (thousands €) (4)	1,079,534	1,093,373	1,325,285	1,239,881	<b>14.9</b>
Exports (T product) (4)	733,112	312,991	401,186	1,206,166	<b>64.5</b>
Exports (thousands €) (4)	787,795	893,570	1,016,732	981,738	<b>24.6</b>

Note: production indicators, allocated allowances, verified emissions and the two derived ratios relate to those **installations** in the sector that are involved in emissions trading. The number of workers refers to the **companies** involved in emissions trading and the foreign trade figures correspond to the glass **sector** as a whole. The data regarding trade from 2008 are provisional data.

(1)Source: TGSS, members on 31 December of each year.

(2)Source: Employer Association.

(3)Source: Ministry of the Environment and Rural and Marine Affairs.

(4)Source: Department of Trade and Investment. Ministry for Industry, Tourism and Trade and Employer Association.

**GLASS AND FRITS SECTORAL ROUNDTABLE**

**INDICATORS  
FRITS SECTOR**

INDICADOR					Evolution
	2005	2006	2007	2008	2005-2008 (%)
Nº workers(1)	3,420	3,366	3,485	3,410	<b>-0.3</b>
Production (T product) (2)	906,087	889,043	857,906	865,715	<b>-4.5</b>
Allowances allocated(T CO2) (3)	685,602	698,532	728,058	636,638	<b>-7.1</b>
Verified emissions(T CO2) (3)	579,176	551,469	497,798	471,297	<b>-18.6</b>
Emission intensity ratio	0.639	0.620	0.580	0.544	<b>-14.8</b>
Level of coverage ratio	118,38%	126.67%	146.26%	135.08%	<b>14.1</b>
Imports (T product) (4)	20,751	19,134	21,907	15,165	<b>-26.9</b>
Imports (thousands €) (4)	20,786	22,418	26,059	20,203	<b>-2.8</b>
Exports (T product) (4)	542,383	505,057	570,428	578,395	<b>6.6</b>
Exports (thousands €) (4)	276,339	289,140	349,473	356,911	<b>29.2</b>

Note: production indicators, allocated allowances, verified emissions and the two derived ratios relate to those **installations** in the sector that are involved in emissions trading. The number of workers refers to the **companies** involved in emissions trading and the foreign trade figures relate to the frits **sector** as a whole.

(1)Source: TGSS, members on 31 December of each year.

(2)Source: Employer Association.

(3)Source: Ministry of the Environment and Rural and Marine Affairs.

(4)Source: Department of Trade and Investment. Ministry for Industry, Tourism and Trade and Employer Association.

### **3.6 . – Ceramics**

This sector is composed of the subsectors of bricks, roof tiles and ceramic floor tiles. Until early 2008, its rate of expansion remained ahead of that of the GDP, largely due to the growth of the construction sector in recent years.

The growth forecast for bricks and roof tiles for 2012 was double the production figure for 1990. This growth was much greater than that of the same sector in the rest of the European Union, but it has been sharply impacted by the global economic crisis, particularly the construction sector. Spanish production of ceramic floor tiles accounts for over 11% of world production.

#### **Employment:**

According to ENI figures, employment grew strongly between 1993 and 2005, at approximately 35%. According to the figures for 2004 provided by the Spanish Association of Manufacturers of Roof Tiles and Baked Clay Tiles (HISPALYT), the subsector employed 12,500 workers. The Association of Manufacturers of Ceramic Tiles and Flooring (ASCER) identified over 25,000 workers in the subsector that same year.

One element that should be borne in mind when analysing this sector is the substantial presence of small, medium and micro-enterprises, employing less than 250 workers. Some of these companies are the ones that have experienced the greatest difficulties in complying with the NAP, due to the fact that they use obsolete technologies and the perception that they cannot meet the challenges. They would be candidates for negotiations on specific installations.

Lastly, none of these companies have closed down as a result of the NAP; that is, there have not been job losses and they are on “the road to compliance”.

Nonetheless, job loss between 2005 and 2008 has risen to 25% in the roof tiles and bricks sector and to 14% in the wall and floor tiles sector on account of shrinking demand over the past year (2008).

#### **Emissions:**

The need to meet demand and the continually escalating energy costs have provoked an important evolution in the sector since the early 1990s; in many cases this has meant the closure of obsolete installations and the construction of new installations, and in other cases the total renovation of equipment. Most installations have incorporated the best technical advances that exist in the sector and currently use equipment that is highly energy efficient with low specific consumption. Currently, a small margin for improvement remains, applicable only to emissions caused by combustion.

Follow-up indicators reveal declining emissions for the period 2005-2008, standing at 31.7% in the bricks and roof tiles sector and 8.1% in the wall and floor tiles sector, due to the collapse of the construction sector.

**Table 8a: Indicators. Ceramics roundtable. Brick and roof tile sector**

**CERAMICS SECTORAL ROUNDTABLE**  
**INDICATORS**  
**BRICKS AND ROOF TILE SECTOR**

INDICADOR					Evolution
	2005	2006	2007	2008	2005-2008 (%)
Nº workers(1)	9,127	9,370	9,197	6,835	<b>-25.1</b>
Production (T product) (2)	21,462,531	22,390,059	21,847,624	15,468,601	<b>-27.9</b>
Allowances allocated(T CO2) (3)	4,813,583	4,950,154	5,005,359	4,357,416	<b>-9.5</b>
Verified emissions(T CO2) (3)	4,145,082	4,146,143	4,043,053	2,832,634	<b>-31.7</b>
Emission intensity ratio	0.193	0.185	0.185	0.183	<b>-5.2</b>
Level of coverage ratio	116.13%	119.39%	123.80%	153.83%	<b>32.5</b>
Imports (T product) (4)	210,035	142,251	131,016	206,289	<b>-1.8</b>
Imports (thousands €) (4)	71,038	79,622	77,684	82,321	<b>15.9</b>
Exports (T product) (4)	346,869	245,328	241,261	440,338	<b>26.9</b>
Exports (thousands €) (4)	97,064	110,617	121,902	128,847	<b>32.7</b>

Note: production indicators, allocated allowances, verified emissions and the two derived ratios refer to those **installations** in the sector that are involved in emissions trading. The number of workers refers to the **companies** involved in emissions trading and the foreign trade figures relate to the bricks and roof tile **sector** as a whole. The data regarding trade from 2008 are provisional data.

(1)Source: TGSS, members on 31 December of each year.

(2)Source: Employer Association.

(3)Source: Ministry of the Environment and Rural and Marine Affairs.

(4)Source: Department of Trade and Investment. Ministry for Industry, Tourism and Trade and Employer Association.

**CERAMICS SECTORAL ROUNDTABLE**  
**INDICATORS**  
**WALL AND FLOOR TILES SECTOR**

INDICADOR					Evolution
	2005	2006	2007	2008	2005-2008 (%)
Nº workers(1)	7,949	7,882	8,055	6,840	<b>-14.0</b>
Production (T product) (2)	1,356,400	10,342,800	9,939,900	8,409,900	<b>-18.8</b>
Allowances allocated(T CO2) (3)	907,870	1,598,814	1,624,673	1,438,434	<b>58.4</b>
Verified emissions(T CO2) (3)	1,250,94	1,381,528	1,358,282	1,149,206	<b>-8.1</b>
Emission intensity ratio	0.121	0.134	0.137	0.137	<b>13.2</b>
Level of coverage ratio (4)	113.33%	115.73%	119.61%	125.17%	<b>10.4</b>
Imports (T product) (5)	189,986	286,140	337,256	253,086	<b>33.2</b>
Imports (thousands €) (5)	97,245	123,923	153,734	120,450	<b>23.9</b>
Exports (T product) (5)	5,775,691	5,677,556	5,749,761	5,366,413	<b>-7.1</b>
Exports (thousands €) (5)	2,041,351	2,188,297	2,275,116	2,210,910	<b>8.3</b>

Note: production indicators, allocated allowances, verified emissions and the two derived ratios refer to those **installations** in the sector that are involved in emissions trading. The number of workers refers to the **companies** involved in emissions trading and the foreign trade figures relate to the roof and floor tiles **sector** as a whole. 2008 trade figures are provisional.

(1)Source: TGSS, members on 31 December of each year.

(2)Source: Employer Association.

(3)Source: Ministry of the Environment and Rural and Marine Affairs.

(4) For total verified emissions, the calculation of the 2005 ratio does not include 449.4 thousand tCO<sub>2</sub>, corresponding to atomizers those which fall within the scope of Act 1/2005 from 2006 onwards.

(5)Source: Department of Trade and Investment. Ministry for Industry, Tourism and Trade and Employer Association.

### **3.7. - Paper and Cardboard**

The Spanish paper sector is flourishing and expanding at a rate superior to that of the EU average and the national GDP; it now occupies fourth place as pulp exporter in the EU and is seventh in the world. Production expanded by 46% between 1995-2002 and, prior to the onset of the current recession, it was estimated that by 2012 production would be almost double its 1990 level (+91%). Despite the global context and evidence of a slow-down between 2007 in 2008, production consistently rose throughout the 2005-2008 period.

#### **Employment:**

Figures from the National Industry Survey 2006 reveal that employment in the sector has remained relatively steady since 1993 and that it has not mirrored the production increase. The Spanish Association of Paper and Cardboard Manufacturers (ESPAPEL) reported 18,000 employees in 2007. From 2007, job figures declined substantially (see table of indicators), being linked to a decline in production in response to reduced demand.

#### **Emissions:**

In the light of expectations of a sustained increase in demand and production of pulp and paper (52% for the period 2001-2012), which must again be corrected to reflect the crisis, a rise in total emissions can be expected, which may be partially offset by improved energy efficiency, changes in fuel use and improved penetration of cogeneration in the sector.

Indicators for the sector reveal a decline of 1.3% in verified emissions (2005-2008).

**Table 9: Indicators. Pulp, Paper and Cardboard Sectoral Roundtable.**

**PULP, PAPER AND CARDBOARD SECTORAL ROUNDTABLE**  
**INDICATORS**  
**PULP, PAPER AND CARDBOARD SECTOR**

INDICADOR					Evolution
	2005	2006	2007	2008	2005-2008 (%)
Nº workers(1)	15,114	15,140	14,982	13,884	<b>-8.1</b>
Production (T product) (2)	7,669,800	8,391,000	8,793,500	8,423,400	<b>9.8</b>
Allowances allocated(T CO2) (3)	5,285,501	5,603,813	5,672,113	5,483,368	<b>3.7</b>
Verified emissions(T CO2) (3)	4,740,540	4,611,030	4,711,640	4,677,000	<b>-1.3</b>
Emission intensity ratio	0.618	0.550	0.536	0.555	<b>-10.2</b>
Level of coverage ratio	111.50%	121.53%	120.39%	117,24%	<b>5.2</b>
Imports (T product) (4) (5)	4,661,967	5,236,051	4,815,212	4,842,488	<b>3.9</b>
Imports (thousands €) (4)	2,965,849	3,220,252	3,160,347	3,225,655	<b>8.8</b>
Exports (T product) (4) (5)	3,017,080	3,767,361	3,881,236	4,035,913	<b>33.8</b>
Exports (thousands €) (4)	1,976,395	2,402,640	2,461,302	2,715,002	<b>37.4</b>

Note: production indicators, allocated allowances, verified emissions and the two derived ratios refer to those **installations** in the sector that are involved in emissions trading. The number of workers refers to the **companies** involved in emissions trading and the foreign trade figures correspond to the pulp, paper and cardboard **sector** as a whole. 2008 trade figures are provisional.

(1)Source: TGSS, members on 31 December of each year.

(2)Source: Employer Association.

(3)Source: Ministry of the Environment and Rural and Marine Affairs.

(4)Source: Department of Trade and Investment. Ministry for Industry, Tourism and Trade and Employer Association.

(5) Evolution ratio refers to 2008 against 2006.



## 4. Non-Trading (Diffuse) Sectors Dialogue Roundtable

The so-called diffuse sectors include the sectors of transport; residential, commercial and institutional (R, C and I); agricultural; waste; fluorinated gases. While these sectors account for 55% of emissions in Spain, they are not covered by either the European Directive on emission allowances trading or by the NAP.

The general roundtable agreed to establish the “diffuse sectors dialogue roundtable” as a way of encouraging discussion with workers and employers from the sectors belonging to this broad sector. A number of those interviewed during the first stage spontaneously raised this subject, identifying it as one of the principal outcomes of the roundtables or as proof of the productive, mature dialogue in this forum.

The meeting to establish the diffuse sectors roundtable was held on 7 September 2007, with the participation of worker and employer representatives from the transport and property sectors. During this meeting, the general objectives of the dialogue roundtable were outlined, the secretariat and chairmanship were established, and the participants were invited to submit proposals on the content it should have: priority areas of action, most approachable sectors, etc.

Due to the date of the constitution of this roundtable, it was not possible to include interviews with trade union or employer representatives from this sector during the first phase. During the second round, interviews were conducted with participants in the diffuse sectors roundtable from the three parties involved.

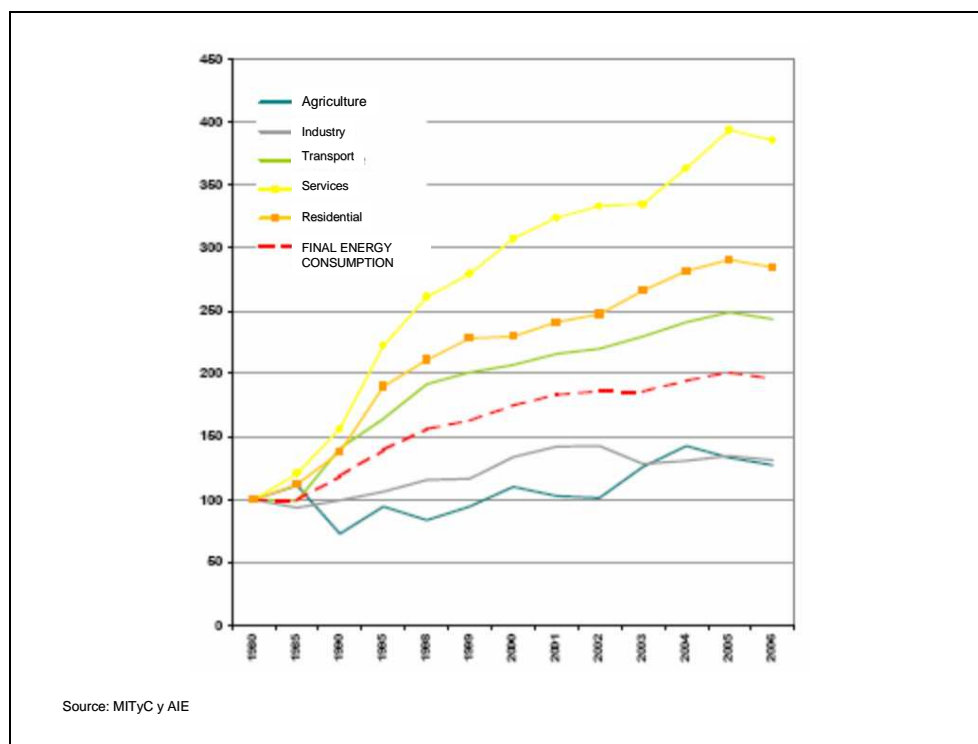
Attention was drawn to the difficulties encountered by the sectors in the context of social dialogue by reason of their diverse nature, with hundreds of employer organisations of different sizes. Due to this heterogeneous character, among the first proposals by this roundtable was the creation of subgroups for sectoral work, in the interests of making more efficient progress. It was further proposed that a programme of work should be formulated to analyse the extent to which measures to combat climate change had been implemented, together with its impact on jobs. Two meetings were held in 2009 to work on identifying indicators linked to the creation of Green Jobs, although these have not yet been compiled on account of the complex nature of compiling reliable and sound indicators.

The following section analyses the evolution of emissions in the diffuse sectors, focusing on Transport and Residential, Commercial and Institutional, which will receive priority attention by the diffuse sectors roundtable.

### **4.1 - Evolution of emissions**

The initial chapters of this study analysed the evolution of GHG emissions in Spain and considered how they failed to meet the Kyoto Protocol objectives. Table 6 demonstrates that the increase in final energy consumption in the diffuse sectors is even more pronounced than the global evolution.

**Graph 6:** Evolution of final energy consumption 1980-2006 (100% = base year, 1980)



According to the NAP 2008-2012, beginning in 2005 one finds a levelling off of emissions in response to measures introduced in recent years.

The NAP estimates indicate, based on assessment of projections for the diffuse sectors as a whole, that average growth for the five-year period 2008-2012 will total 65% over emissions for these sectors during the base year (1990), meaning that new measures must be discussed to bring this rate of growth into line with the levels of the industrial sector, estimated at 37%, as established by the NAP. The emissions reductions made in 2008 and that are predicted for 2009 are closely linked to the economic crisis. For this reason, efficient measures are needed in these sectors, beyond those which have already been introduced, such as the sustainable mobility strategy or energy savings and efficiency plans for buildings at the local or autonomous region levels.

In Spain, these sectors carry an enormous weight in the national economy, with a recent growth of huge importance. As regards transport, the growth in the number of vehicles on the road is compounded by considerations of a geographical nature, such as a lower population density than the European average, which translates into greater distances of travel. In the R, C and I sectors there was an enormous growth of construction over the last decade, as was there in the levels of comfort and equipment in homes and commercial and institutional buildings.

The following section outlines the principal characteristics of both sectors and prospects for increased savings and efficiency, in the context of the measures and standards that have been adopted.

## **4.2. - Description of the Transport and Residential, Commercial and Institutional (R, C and I) Sectors**

### **a) Transport**

The structure of inter-urban mobility within Spain has undergone considerable changes. Until the mid-20th century, railways were the main mode of transport, but they were subsequently replaced by road transport, which now accounts for 90% of passenger transportation and 80% of goods. Road transportation has experienced the greatest growth in the sector, at a 5% year-on-year rate between 2000 and 2004, and near 3% since then. 2008 saw a decline of 4.2%, due primarily to higher fuel prices and a crisis-induced curtailment of work-related travel and movement of goods during the last part of the year.

This is also the subsector which has experienced the biggest jump in energy consumption in recent years, since demand for transportation has increased at a rate that exceeds that of the GDP; this applies likewise to its energy intensity, which is 30% higher than in 1985. The final total energy consumption in the transport sector in Spain rose in 2007 to 41,084 ktoe, which is 1.8% higher than in 2006. Practically all (99%) of this consumption was used in energy uses.

Among the diffuse sectors, the transport sector was responsible for almost 50% of GHG emissions. According to the NAP, CO<sub>2</sub> emissions from transport rose by 75.6% during the period 1990-2004, which in 2004 translated into 28% of total CO<sub>2</sub> emissions.

The direct objective of Strategy E4 is not to reduce transport-related GHG emissions, but rather to increase savings and efficiency in energy use, thereby producing a reduction in some polluting emissions, particularly those of CO<sub>2</sub>. Its objective is to bring about a slowdown of growth in the consumption of fossil fuels.

In addition to the measures included in E4 and its Plan of Action 2008-2012, others are being implemented in the hope of reducing emissions, such as the Renewable Energies Plan 2005-2010, the Strategic Transport Infrastructure Plan 2005-2020 (PEIT), and other initiatives such as the increased use and efficiency of alternative fuels. On the mobility front, the Spanish Sustainable Mobility Strategy (EEMS) was adopted in 2009.

### **b) Residential, Commercial and Institutional (R, C and I)**

When analysing these sectors, the construction and energy consumption of installations in buildings in general should be considered, be they fixed (heating, air conditioning, hot water, lighting, etc.) or of equipment (kitchen installations, office fixtures, etc.).

In 2000, energy consumption in the **buildings** sector (residential plus services) in Spain rose to almost 14.5 mtoe, of which nearly 70% corresponded to residential consumption (homes) and 30% to tertiary sector consumption (services). The largest proportion of residential consumption corresponds to heating, followed by hot water. By 2006, this figure had shot up to 23 mtoe.

Regarding **installations**, residential energy intensity has been increasing in Spain since the mid-1980s, due to the sharp rise in the equipment of homes and in levels of comfort. The average for the European Union under this heading has been more or less stable or has even declined.

A marked growth under this heading has also occurred in the services sector, with consumption rising between 1980 and 2000 by a rate of over 2.5%. Energy intensity has also risen since 1985, through increased use of heating and air conditioning systems. Since 1990, the average energy intensity in the European Union has declined. On both fronts, reduced energy consumption over the last two years has reversed the trend.

The measures proposed in E4 for the buildings sector will make it possible to achieve, on a tendential scenario, energy savings of 7.5% per year in 2012. The instruments to implement these measures consist, in part, of regulations, such as the Technical Building Code and the Regulation on Thermal Installations in Buildings, as well as other promotional instruments such as timely support packages. A differentiated approach has been adopted in evaluating the domestic sector and the tertiary sector, both for existing buildings and for new construction.

The measures proposed to achieve objectives in the sector consist, primarily, of promoting a progressive switch to class E (high-efficiency) domestic appliances in the form of purchase incentives, campaigns, voluntary agreements, etc., with a view to increasing their market share to 40% by 2012.

## **5. - Social Dialogue Roundtables from the point of view of participants. Interview results.**

This chapter offers an analysis of the responses from 15 interviews in 2007 with key actors who have been participating in this process since the outset. An effort has been made to ensure that all the sectors affected by the NAP and the three parties involved (Government, trade union organisations and employer organizations) were represented in a balanced manner<sup>27</sup>

The last section of this chapter analyses the progress achieved and the opinions of the six participants in the roundtables in July 2009. Again, an effort is made to cover the different sectors and representatives of the three parties, although greater weight is given to the diffuse sectors roundtable, which was established when the first part was already underway and therefore could not be included.

In terms of methodology, the choice was made to conduct an interview with open answer questions (Annex III), in order to influence replies as little as possible. This approach made it possible, in addition, to gauge the degree of receptiveness of interviewees, with some questions eliciting replies that were of a primarily technical nature.

The interviews consisted of 15 questions, falling basically into four parts:

- a) A general assessment of the dialogue roundtables, their objectives, achievements and expectations.
- b) The contribution of the dialogue roundtables to the implementation of the National Emission Allowances Allocation Plan.
- c) The functioning and operational aspects of the dialogue roundtables.
- d) Proposals and suggestions for the future.

### **5.1. – The Interviewees:**

Of the 15 interviews conducted, five were devoted to Government, including one Autonomous Community, five trade union organisations and five employer organisations.

The selection of interviewees was intended to obtain the views of the three parties on each of the sectors. In some cases, particularly as regards trade union organisation representatives, interviewees participated in more than one sectoral roundtable, since there is no direct link between the sectors defined in the NAP and the respective trade union organisations, which generally cover more than one sector.

The following table presents a complete list of the institutions interviewed and their distribution by party (government, trade union organisation, employer organisation) and sectoral roundtables in which they

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<sup>27</sup> Interviews were conducted between 19 September and 24 October, 2007, by Sustainlabour Foundation personnel, with ILO collaboration in some cases.

participated. The table shows that between five and eight interviews were conducted per sector, in every case with representatives of the three parties.

**Table 10:** List of institutions interviewed, by party and by sector

Party	Institution	General Roundtable	Sectoral Roundtables							
			Cement And Lime	Ceramics	Iron and steel coke	Refining	Glass and Frits	Pulp, Paper and Cardboard	Electricity	
Government	Ministry for Industry, Tourism and Trade; Department of Energy*									
	Environment Ministry; Spanish Climate Change Office									
	Ministry of Labour and Social Affairs; - Directorate for Labour Relations**									
	A. C. Of Andalusia; Department of Prevention and Environmental Quality									
Trade Union Organisations	Federation for Construction and Similar – FECOMA/CCOO									
	Federation for the Textile, Leather Chemical and Similar Industry – FITEQA/CCOO									
	Federation for Metal, Construction and – MCA/UGT									
	Federation for Mining and Metallurgy CCOO									
	Confederación Sindical de Comisiones Obreras Trade Union Confederation; Acción Sindical									
Employer Organisations	Spanish Confederation of Employer Orgs - CEOE									
	Spanish Association of Pulp, Paper and Cardboard Manufacturers - ASPAPEL									
	Association of Cement Producers. HOLCIM Spain									
	Spanish Electricity Industry Association - UNESA									
	Spanish - HISPALYT Assoc. of Baked clay Brick and Roof Tile Manufacturers									

\* Two interviews, one in person and one in writing, were carried out.

\*\* Head of the dialogue roundtables Secretariat

The interviews were conducted in person in the interviewees' work environment, with the exception of two that were completed in writing (one with the Association of Cement Producers and one with the Ministry of Industry, Tourism and Trade). Interviewees were for the most part receptive to participating in the study, in both the first and second phases.

## **5.2. - General evaluation of dialogue roundtables, their objectives, achievements and expectations.**

### **a) The roundtables as instruments of participation:**

When questioned about their opinion of the social dialogue roundtables as instruments of participation, 13 of the 15 interviewees returned a positive evaluation, to varying degrees of approval. The majority of interviewees describe the experience as an “innovative” and “pioneering” initiative. Phrases such as “interesting” and “useful space for debate”, etc., were also frequently repeated.

While considering it a very positive experience and a demonstration of the government’s political will, five of the interviewees who expressed a positive opinion voiced concern regarding the primarily informative nature of meetings thus far. They were of the view that they could be made more useful, given the great potential of this instrument. In this regard, the interviewees pointed out that the NAP had not had any major impact on employment since they had not been faced with any major challenges but that, had such effects arisen, or if they occurred in the future, the roundtable would be an ideal forum for debating and reaching decisions in a consensual manner while simultaneously minimizing negative social effects.

Overall, the roundtables were described by interviewees as a space for “calm”, “thoughtful”, “comfortable”, “reasoned” dialogue in which conflict was generally muted, even in the sectors facing the greatest NAP-related challenges.

The majority of interviewees identified the origin of the initiative to be a demand made by trade union sectors in the context of the social dialogue process initiated by the government in 2004.

There were only two negative responses, one from the trade union side and one from the employer side. The first negative response stemmed from the interviewee’s frustration in regard to the potential scope for the instrument and the lack of political will to make this happen. The second negative response was due to the interviewee’s opinion that the objectives assigned to the roundtables, as embodied in law, could not be achieved by the way in which they are functioning.

### **b) Objectives**

When questioned about their understanding of the principal objectives of the roundtables, it is apparent that the interviewees clearly grasped the objectives established by law, although different interviewees placed greater emphasis on some objectives than on others. Several interviewees considered that, to date, the roundtables were only partially complying with the objectives established by law.

In general, the interviewees identified more than one objective, with the following ranking in terms of frequency of mention:

1. **To monitor and anticipate** possible difficulties, risks and impacts in connection with the implementation of the National Allocation Plan (8)
2. **To reflect on** the social, labour and economic impacts of the measures implemented to comply with the Kyoto Protocol. (6)
3. **To provide information** on the measurement and verification of emissions. (4)
4. **To propose** measures and solutions for possible impacts. (3)
5. **To guarantee justice and equilibrium** in the allocation of allowances. (3)
6. **To reduce GHG emissions** with the least cost to jobs and competitiveness. (1)

Upon examining the interviewees' responses, one notes that the employer organizations referred firstly, and most frequently, to the objective of "reflecting on the possible impacts of the NAP" (3 out of 5), while the central Government first mentions the objective of "following up on and anticipating possible related impacts" (3 out of 5). The trade union organizations shared this latter concern (5 out of 5), but was the only group which made mention of the objective of "proposing measures and solutions" (3 out of 5) to possible problems.

Although the objectives of "reflecting on" and "following up and anticipating" may appear to be the same thing, there is a difference of perspective, since the second implies the formulation, follow-up, evaluation and interpretation of indicators. That said, it should be noted that none of the employer interviewees referred to the objective of "following up and anticipating impacts", although some did refer in other phases of the interview to the potential the roundtables could have to serve this purpose in the future.

### **c) Impact on central Government (AGE) policies and decisions**

As a result of the way in which the roundtables were conceived, no institutional link exists between them and the entities making decisions regarding climate change policy. This point was raised specifically by asking interviewees their opinion on the concrete influence that the roundtable discussions have on these decisions.

It is possible here to identify two levels of response, relating on the one hand to the possibilities of influencing the NAP and, on the other, to the influence that the decisions, agreements and differences discussed by the roundtables have on climate change policies and energy policies in general. This difference is in sometimes made explicit by the respondents, while at other times it is omitted; this dynamic confers an initial impression of contradiction.

On the subject of the NAP, the majority point out that the roundtables' meetings occurred when the NAP had already been adopted (or during the challenge period, leaving a very small margin for introducing corrections), thereby making it unlikely that the conclusions reached by the roundtables would be incorporated.



In regard to the possible influence on policies in general, nine interviewees considered that this influence did exist. The trade union representatives in particular were of the view that, in general, the government (AGE) takes note of the discussions and agreements, although some were more in agreement with this statement than others.

Two interviewees stated that it was too early to be able to reply on this point, while another four considered that they do not have any impact. Of the four returning this response, three were from the employer organizations and one from a trade union organization.

Five interviewees (two from the employer side and three from the AGE) pointed out the existence of other spaces (the National Climate Council, or prior consultations held in regard to formulation of the NAP), as having a greater influence on the decisions regarding the issue; they further stated that they did not believe that there should be any binding character with the dialogue roundtables.

Among the latter, one of the government (AGE)'s interviewees drew attention to the "informal" nature of the roundtables as being one of the successful elements of this initiative. In his opinion, if the roundtables had a binding character, they would be considered as a space of negotiation and it would be more difficult to achieve results.

All interviewees representing the government acknowledged that the roundtables offered a space that was essential for "hearing" demands and concerns of the different affected parties. One of these interviewees stressed that "during the decision-making process the AGE should pay great attention both to what emerges as agreement or consensus between the parties and to the points which generate the greatest levels of contention".

#### **d) Expectations, potential and limitations:**

All of the interviewees agreed that it was necessary to guarantee the continuity of the space and were confident on this point. The majority of the interviewees believed that the fact that the roundtables had been institutionalized by Royal Decree constituted a guarantee of continuity.

One interviewee expressed a fear that the space could be used by any one of the three parties as a platform for demands that were irrelevant to the objectives of the roundtables, which would undermine the objectives of the roundtables and jeopardize their continuity.

Above and beyond the shared view that the dialogue roundtables should continue, the interviews revealed that their expectations in regard to possible outcomes varied considerably, depending on which party they represented.

Thus, the government expected a voice of alarm (or peace of mind) from them regarding possible difficulties or impacts. Employer organizations viewed them in a rather instrumental way; in the future they can be a good instrument to give voice to difficulties and to identify solutions. Trade union organizations perceived a broader range of functions, for which reason they hoped to be able to make the roundtables more dynamic and broaden their scope. They have therefore had an active attitude in the presentation of various proposals mentioned below.

One interviewee identified the unequal access to information and scope for involvement by the different parties as a possible limitation. Reference was also made to inequalities between the sectors, since some were better structured and have a better reaction capacity than others.

Another interviewee, representing the Government, considered that social agents in general should have a more active attitude and be more participative, by submitting proposals, voicing demands, etc.

#### **e) Achievements**

The majority of interviewees (10 of 15) considered the principal achievement to be the very existence of the dialogue roundtables, which constitute a unique institutional space by reason of their characteristics, in which the government, workers and employers can engage in dialogue without intermediaries and on an equal footing.

The innovative dimension of the approach that was particularly highlighted is that a tripartite space of this nature is not usual for discussing medium and long-term concerns (as opposed to immediate and concrete considerations).

One interviewee mentioned the importance of the tripartite approach in analyzing the social and economic impacts of climate change policies, which had previously focused only on environmental impacts.

The majority considered that it was too early to identify other achievements, although the following outcomes were mentioned as results or successes:

1. Access to first-hand information. (3)
2. Agreement reached regarding the establishment of the diffuse sectors roundtable. (3)
3. The introduction of benchmarking criteria in the NAP 2008-2012. (1)

Two interviewees failed to identify any achievement, one from the employer party and one from the trade union party.

### ***5.3. - Contribution of the dialogue roundtables to NAP implementation: impact on competitiveness and employment***

The majority of interviewees from the employer and trade union sides stated that they had initially been concerned about the possible impacts of the NAP 2005-2007 implementation on competitiveness and employment. Today, two years later and in light of data for the years 2005 and 2006, the fears of both parties have largely dissipated.

The interviewees from the trade union side, in particular, stated that the space provided by the roundtables has given them peace of mind regarding the impact that these initial measures might have on

employment, closures, etc. Although some sectors are more sensitive than others, overall it was apparent that emissions had been reduced, with improvements in production and job stability.

In terms of competitiveness, the interviewees from the employer side were of the view that the NAP introduces a distorting element, particularly as regards the sectors that are exposed to international competition; they felt that the NAP was detrimental principally to the smallest and to the most “eco-efficient” companies, who saw their costs increase. One of the interviewees even suggested that the roundtables might assume “supervisory” functions over the NAPs in other EU countries in order to anticipate possible distortions of this type<sup>28</sup>.

Five interviewees referred to the impact of NAP implementation on the ceramics sector, particularly for installations producing bricks and tiles. Although there was no emission allowance deficit for the sector globally, there were substantial imbalances between installations. The interviewees from this sector referred to the “grave” impact (though not to the extent of closure) on some installations, and one interviewee considered that the impact was not greater because of the low price of the emission units on the market.

All interviewees agreed that, to date, there has been no verifiable impact on jobs. Representatives of the electricity sector expressed the greatest concern regarding this matter; according to their projections, the requisite modifications in the sector over the coming years will provoke employee transfers, loss of direct and indirect jobs, etc., with social and economic impacts that would be felt beyond the sector itself. These modifications respond to a transformation fundamentally of the structure of electricity generation and are not directly related to the NDP.

Another particular case is that of the glass and frits sector. In this sector interviewees identified new opportunities for economic growth and job creation through implementation of measures and new norms and standards for efficiency and energy saving.

#### **d) The contribution of the roundtables in tackling challenges**

On the subject of the contribution of the roundtables, thirteen of the fifteen interviewees expressed confidence that the dialogue roundtables had made an extremely important contribution to achieving a greater understanding of the sectoral challenges and to fostering dialogue between the parties involved. Some of them pointed out the difficulties experienced at the first meeting, during which some actors were sceptical and on the defensive, which subsided with time.

Two interviewees from the employer side explained with examples how the meetings had made it possible to achieve a shared and “intelligent” reading of the emissions verification data which contradicted a first, simplified reading on the part of some actors.

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<sup>28</sup> During the first period of implementation of the European Directive, imbalances did indeed occur between countries, resulting in possible comparative disadvantages between some sectors, and it is to be hoped that the experience gained over the first two years by countries and by the European Commission will ensure that such distortions are not repeated during the current phase, 2008-2012.

One point emphasised by three interviewees from the trade union party is the roundtables' democratic character and the possibility provided by the space for direct dialogue between the three parties involved, obliging each of them to assume clear positions in regard to the others, in a climate of constructive dialogue.

Two other interviewees, one from the trade unions and another from the AGE, called attention to their potential to “minimize the risk of conflict and friction”, in principle permitting demands to be dealt with through negotiation instead of confrontation.

Two interviewees did not feel that the roundtables constitute a contribution to an understanding of the challenges. One of these, from the employer party, said that the roundtables did not do much in this regard, as the actors already know what the challenges are and can dialogue fluently. The other, from the trade union party, maintained that the duration and frequency of meetings did not allow the full potential of this aspect of the roundtables to be realized.

#### **e) Proposals arising from the roundtables in regard to challenges posed by the NAP**

The majority of interviewees (11) agreed that the main proposal to emerge from the roundtables in regard to the challenges facing the sector lay in the formulation of a series of indicators that make it possible to track the economic, social and job impacts deriving from the implementation of measures to reduce emissions, as well as to anticipate disputes and propose solutions.

This proposal was discussed by all of the sectoral roundtables. It stems from the idea that the general roundtable should establish general criteria and that each sector should submit specific indicators.

The initiative was a proposal of the CCOO and was approved by the other parties, each of which would be required to prepare their proposed indicators for discussion in future meetings. The technical departments of the ministries involved would have a fundamental role to play, as this approach would require specific data to be gathered and analysed.

The interviewees show eagerness regarding the prompt formulation of these indicators, as these will effectively allow the roundtables to assume the role of “observatory” for tracking, anticipating and proposing solutions for possible impacts.

Certain difficulties were also noted, including the “fragility” of some data provided by the National Statistics Institute (INE) as regards its utility for monitoring the NAP. The interviewee who identified this difficulty referred to the agreement reached between the parties in the last meeting of the general roundtable to request a meeting with the National Statistics Institute (INE) to make progress on this matter.

Other outcomes identified were:

- The establishment of the diffuse sectors roundtable (3),
- The establishment of benchmarking criteria in the NAP 2008-2012 (1), and

- The agreements reached regarding the allocation of allowances by installations (1).

Two interviewees were of the view that no space had previously existed for the construction of proposals and that the work of the roundtables was limited to the numerical verification of emissions.

#### **5.4. - Functioning and operational aspects of the dialogue roundtables**

On the matter of functioning and operation of the dialogue roundtables, the majority of interviewees (12) expressed general satisfaction and considered that they were suitable for the (informative) objectives that the roundtables had fulfilled up to that point.

Nonetheless, 10 of the 15 interviewees believed that meetings should be held more frequently if it is desired that their scope be augmented, not only serving as an informative space (as most participants agreed had been the case to date) to assuming the functions of an “observatory”, with instruments to effect monitoring and evaluation, and to anticipate conflicts and agree on proposals.

Two interviewees called on the relevant AGE departments to comply with the agreement reached between the parties regarding biannual meetings; to date, compliance has not been met, as meetings thus far have only been held once per year. While they understand that some actors may have “scheduling conflicts”, they believe that these “conflicts” are indicative of the importance that these actors give to the work of the roundtables.

One of the AGE interviewees suggested that, given that emissions data was issued annually, it was logical to convene annual roundtable meetings. Another interviewee argued that more frequent meetings would involve an “excessive burden of work” for the Government, resulting in “overcrowded agendas” and “inadequate human resources”.

Regarding the same question, other AGE interviewees acknowledged that the frequency of meetings would need to be adjusted if progress was to be made in monitoring and projections, and expressed their commitment to ensuring that the roundtables be allowed to develop to their full potential.

Three interviewees called for meetings to be held while the NAP is still in the negotiation stage, and not when it has already been approved. They consider that, under the existing format, the challenge period is very short; moreover, it coincides with the vacation period, which further hinders effective participation.

Most of the information discussed during meetings was provided by the AGE itself, frequently on the basis of data submitted by the employer organizations. Some interviewees from the trade union sector considered the roundtables to be an important source of information, while others also worked with their own information and sources (information from delegates, trade union institutes, etc). The majority considered it to be a plural space for pooling information.

#### **5.5 – Suggestions**

The following nine concrete proposals were made to improve the functioning of the roundtables and enhance their contribution to NAP follow-up:

1. By increasing the frequency of meetings, with different interviewees suggesting between two and four meetings per year (10 interviewees, from all parties).
2. By establishing “Working Groups” to formulate tracking indicators and analyzing their evolution. These groups would ideally consist of six members (two members for each party, who would meet on a regular basis. In this way the participants would attend meetings of the sectoral roundtables (ideally twice yearly) to analyse the information together and identify the points of conflict. (One interviewee from the trade union party).
3. By establishing a “Plan of Work” that identifies objectives, goals, time frames, and responsibilities. This would clarify each party’s expectations and reduce the risk of frustration (one interviewee, from an employer organisation).
4. By constructing “Impact Maps” in which the social and economic impact of measures could be viewed in their geographical context (one interviewee from the trade union party).
5. By establishing new roundtables for the sectors that are not affected by the NAP, for example cogeneration, aviation, etc. The establishment of the diffuse sectors roundtable provides a positive precedent for this (one interviewee from the trade union party)
6. By intensifying preparatory work by the Government, thereby guaranteeing advance circulation of information and better conditions for participation for the other parties (one interviewee from the Government).
7. By promoting a better participation of the Autonomous Communities in meetings, since their presence in the second meeting of the sectoral roundtables was noticeably lower than for the first meeting (one interviewee from the employer party).
8. By identifying flexible and clear mechanisms at the national level for integrating the roundtables in other spaces for participation and in existing forums (for example, the CNA and CCPCC) (one interviewee from the Government).
9. By discussing mechanisms of “surveillance” of the normative framework for transposing the European Directive on emissions allowances trading in EU countries, in order to anticipate possible imbalances affecting the competitiveness of Spanish industry (one interviewee from the employer party).

## ***5.6. - Updating and evaluation of roundtables***

With a view to the possible introduction of social dialogue roundtables in other countries, two years after the first part of the study was carried out the ILO and Sustainlabour proposed updating the data and supplementing the report with an analysis of the initiative’s progress, including the successes it has achieved and those still pending, an assessment by participants of its effectiveness, and the potential exportability of the dialogue roundtable experience.

Six interviews were held during the second stage: two with AGE (Spanish Climate Change Office), two with the employer sector (cement sector and diffuse sectors) and two with trade union organizations (UGT and CCOO). Informal interviews were also conducted with representatives of the electricity sector. The interview was sent to an Autonomous Community, which, in the end, did not participate in the study.

**a) General assessment of the evolution of dialogue roundtables, in terms of objectives, achievements and expectations**

All of the interviewees gave a positive assessment of the evolution of the roundtables in fulfilling the objectives set out. In particular, the objective of exchanging information and creating an open space for reflection and discussion has been attained. Also, the understanding and analysis of sectoral challenges has improved, as has the dialogue between the parties involved.

Two interviewees drew attention to the extent to which the input of information has been strengthened with economic and employment parameters which allow for a greater understanding of the evolution of the sectors in regard to emissions and possible effects on competitiveness and jobs. All of the interviewees underlined the formulation of indicators as an important achievement of the roundtables.

One of the interviewees who participated in the diffuse sectors roundtables called attention to the proposed idea of establishing subgroups to sectoralize and optimize the effectiveness of discussions, given the heterogeneous character of the sector. Another added that as the diffuse sectors are not only heterogeneous, but also dispersed, it was still early to evaluate achievements, although there was a perception that the AGE had reacted positively to requests introduced during discussions.

Among the concrete achievements, the following stand out:

- Linked to the impact on jobs, the establishment of a work framework on the needs of workers in the process of training and re-qualifying, with a particular focus on the spheres of housing and renewable energies.
- The inclusion of explanatory parameters such as imports, exports, energy efficiency ratios, and jobs. This data allows for a more precise assessment of the impacts on competitiveness and employment. As an element to be improved, both trade union interviewees said that they needed to receive pertinent and quality information sooner. Specifically, one interviewee from the trade unions and one from AGE requested a more active and collaborative participation by employer organizations.

One AGE interviewee and one employer interviewee highlighted the need to stick to the subjects under discussion and the existence of other parallel forums for debate; they nevertheless underlined the relevance of the very existence of the roundtables, which permit a “calm, open and useful” debate between the three parties.

In relation to the actual objectives of the roundtables, the interviewees underscored their evolution from a forum for assessing, tracking and anticipating the effects of the NAP on employment to a space for the

exchange of information, consultation and participation. In this respect, the social agents expressed their wish that the roundtables be given greater influence on decision-making processes.

### **b) Contribution of the dialogue roundtables to implementing the National Emission Allowances Allocation Plan**

Virtually all of the participants were in agreement when they emphasized that the roundtables fulfil a function more of consulting and exchanging information than of directly influencing the NAP or decisions regarding climate change policy, plans or strategies. Nonetheless, four of the six interviewees agreed that the roundtables have had an impact on policy decisions to a greater or lesser degree, although, due to the different forums and participation mechanisms, it is complex to gauge the precise extent of that influence.

The employer party noted that this is not one of the roundtables' objectives, and that they were intended to "identify and assess" compliance with the NAP and their effects on employment and social cohesion. According to interviewees, the purpose of the roundtables is to submit proposals for discussion in other forums, and not to adopt measures themselves. Nevertheless, the social agents do claim this function for the roundtables, and they were of the view that their "level of functionality is as yet incipient". Thus, they stressed that the full influence of this space for social dialogue on climate change policy has not yet been realized.

One interviewee from industry emphasized that during this negotiating stage, when the Allocation Plans will be focusing on the European sectoral level rather than a national level, the role of the roundtables "will be rather as adviser to the Government". The AGE considers it very relevant that this advisory role in the negotiations in Europe have a tripartite dimension.

Hence, the AGE's opinion is mixed; the interviewees considered the roundtables to be a "seed" for initiatives and measures for subsequent realization in other forums. It also considers that, while they may not make "major decisions" they do exercise a degree of direct influence. For example, in regard to the allocation to small installations, the debate in the dialogue roundtables has influenced the way the negotiations were translated to the European level. In like manner, the debate in the diffuse sectors roundtables has stimulated the norm on sustainable mobility. They also stress the existence of other spaces with a greater influence on climate change policy decisions.

### **c) Functioning and suggestions**

The continuity of the roundtables was an important consideration during the first interviews, but it should be highlighted that they were now considered to have been consolidated and their continuity had ceased to be a concern for any of the interviewees.

As noted above, among the suggestions made during the first phase of the report, the matter of increasing the frequency of meetings remains pending, as the Government is unwilling to meet more often, arguing excessive workload, the existence of other forums of discussion, as well as the fact that data is issued annually, which justifies the annual dialogue roundtable meetings. Only one interviewee, from the trade union side, insists upon more frequent meetings.



As regards demands, the preparatory work by the Government has been improved, and working groups have been established in some sectors, such as the diffuse sectors. Also, indicators have been made available by sectors, thereby allowing NAP impacts to be tracked more effectively.

After two years of work, new proposals have emerged while others that had previously been proposed remain pending:

- Clearer, better quality information that is made available sufficiently in advance and which includes figures on indirect employment. Indicators do not include subcontractors' employees.
- A more active participation on the part of employer organizations.
- Coordination between the different social dialogue forums which intervene in the NAP.
- The establishment of working groups to settle on proposals to reach a consensus on in sectoral roundtables.
- The monitoring of NAPs in other countries
- For a better efficiency of the meetings, focusing on objectives with concrete issues and avoiding subjects that fall within the remit of other forums.

#### **d) Potential for application outside Spain**

On the basis of three years of accumulated experience, participants were asked their opinion on the exportability of this pioneering initiative. The interviewees considered the experience to be very useful and said that it would be interesting to apply it in other countries, provided certain minimum conditions were met:

- The coordination between the ministries involved (Labour, Environment, Industry, etc.), as the exchanging of information is vital.
- The comprehension and commitment of trade union agents to the Kyoto objectives and open channels of dialogue between the parties.
- A positive attitude and the active participation of industry.

The trade union sphere emphasized four key aspects as the principal value of the social dialogue roundtables that justify extending this tripartite approach, which is still improvable. As noted above, these improvements would include:

- The anticipation of potential situations of socio-economic and environmental conflicts deriving from the consequences of implementing the Kyoto Protocol obligations and, subsequently, of other agreements.
- The search for solutions and adoption of measures to deal with the adverse effects between all of the interested parties through dialogue and consensus.

- Transparency in the decision-making process and in the management of measures adopted to prevent and minimize the negative effects on employment, competitiveness and the environment.
- The identification of opportunities to transform the production system on the basis of criteria of greater eco-efficiency, value-added and better quality of jobs.

## 6. - Initiatives by roundtable participants in response to the challenge of the NAP and the Social Dialogue roundtables

Certain employer and trade union organizations are developing different types of activities linked to the NAP, climate change and energy efficiency. While these activities are not directly related to the social dialogue roundtables, they are an important contribution for a better understanding of the challenges and for raising the awareness of actors, motivating them to participate in these types of spaces. We may consider these initiatives to be collateral results which can be more accurately assessed in the near future.

One interviewee from the trade union side emphasized the “incentive” that the roundtables represented when promoting the inclusion of environmental considerations, particularly those relating to climate change, on the trade union agenda. One indirect effect of this, in the interviewee’s opinion, is the strengthening of the environmental committees and representatives in companies, facilitating progress in discussions on mobility and work, and the incorporation of aspects linked to compliance with the NAP in collective bargaining.

The interviewees from the Government enthusiastically welcomed this type of initiatives and said that they will support and contribute to the various proposed activities through the participation of experts, submission of information, etc.

It is possible that institutions which were not interviewed may be pursuing alternative activities than those described by the interviewees. Below, in alphabetical order, is a list of these institutions:

- The observatory on Competitiveness of the Paper Industry, established jointly by the employer organization ASAPEL and the FCT-CCOO and FIA-UGT trade union organizations, has incorporated the subject of the NAP and the discussions of the dialogue roundtables on its agenda. The Observatory has issued two documents on the NAP (Annex A)
- CCOO: The organisation of Sectoral Seminars for Exchange of experiences on Climate Change and the National Allocation Plan, through the Trade Union Institute for Employment, Environment and Health (ISTES-CCOO), jointly with federations from the respective sectors (Annex B). The Construction Federation (FECOMA) has also organized seminars and training on environmental issues, including the NAP, with environment representatives from the cement sector, and plans other activities for representatives from other subsectors.
- HISPALYT: has organized a number of activities:
  - 1) the publication of methodological guides for emissions monitoring;
  - 2) the drafting and distribution of reports on improvements in emissions intensity (TnCo2/Tn product) in the sector; and
  - 3) explanatory meetings and permanent consulting to manufacturers on NAP compliance.

- UGT: training and awareness raising for environmental representatives on Climate Change and the NAP.
- CNC and Foundation for Employment in Construction: an analysis of training needs to prepare the sector for the demands of energy efficiency and climate change requirements.

### **Most notable results obtained from interviews**

#### **Interviews in 2007**

- All of the interviewees described the initiative as “innovative” and “pioneering”.
- Most defined it as a space for “calm”, “reflective”, “comfortable”, “reasoned” dialogue, in which conflict is generally low, even in those sectors dealing with the greatest NAP-related challenges.
- Nine interviewees considered that they do influence policies in general.
- The “informal” nature of the roundtables was underscored as one of the elements of the initiative’s success, for if their conclusions were of a binding nature the roundtables would be seen as a space for negotiation, and it would then be more difficult to achieve results.
- All of the interviewees expressed the need to guarantee the continuity of the space and were confident in this regard.
- All of the interviewees from the Government acknowledged that the roundtables offered an essential space for “hearing” the demands and concerns of the various parties involved.
- The majority considered it to be a plural space for pooling information.
- The employer organizations considered the roundtables in a rather instrumental way; but they see them as a good instrument with which to seek future solutions.
- The innovative nature of the experience was emphasized, as this type of tripartite space is not usual when dealing with medium and long-term matters (as opposed to immediate, concrete concerns).
- Suggestions put forward in regard to the roundtables included the adoption of NAP “monitoring” functions in other EU countries to prevent possible distortions.
- Thirteen of the fifteen interviewees believed that the roundtables had been extremely important towards achieving a better understanding of sectoral challenges.
- The trade union party highlighted the democratic nature of the roundtables and the possibility they offered of direct communication between the parties involved, requiring each of them to assume clear positions in regard to the others, in a climate of constructive dialogue.
- A possible limitation was identified regarding unequal access to information and possibilities of involvement among the different parties. Another inequality identified between the sectors was that some are better structured and have a greater reaction capacity than others.
- Another challenge raised from different spheres is the “fragility” of some data provided by the National Statistics Institute in terms of use for NAP monitoring. A meeting will be requested with the INE to make progress on this point.

### **Update interviews in 2009**

- The interviewees welcomed the consolidation of the pooling of information in the form of economic and job parameters, which will allow a better understanding of the evolution of the sectors in terms of emissions and possible effects on competitiveness and employment.
- The interviewees considered the experience to be very useful and worth pursuing in other countries.
- Given that no significant impact was produced on employment and competitiveness, no “important” measures were adopted. Had any significant problems arisen, however, the interviewees from trade unions considered that the roundtables would be effective in arriving at a consensus solution.
- The trade union party emphasized the “incentive” that the roundtables represent in promoting the inclusion of environmental considerations, particularly in regard to climate change, in the trade union agenda.

## 7.- Conclusions

To gauge the value of the social dialogue roundtables one should first consider the context of the evolution of the GHG emissions trends in Spain and of the great challenge which achieving compliance with the Kyoto commitments represents. As noted in the first part of this study, the volume of emissions has departed considerably from these commitments, with an increase in emissions in 2008 of over 50% with respect to 1990, that is, over 35 points above the Kyoto requirements.

In parallel to this challenge, the perspective that is opening for the post-Kyoto period, beginning in 2012, when new challenges and commitments will be established for both developed and developing countries, constitutes an opportunity for a broad-based and participative discussion on a subject that will certainly impose severe transformations in modes of production and consumption and might provoke major social and economic impacts.

In addition to the dialogue roundtables, other spaces for social participation exist in Spain which deal with Climate Change policies, such as the National Climate Council. Nevertheless, the roundtables offer a unique tripartite composition (government, workers and employers), which adds a new perspective to the discussion of impacts on competitiveness and employment which these transformations in production will have, as well as to the search for solutions and alternatives that might minimize the possible negative effects and boost opportunities.

The institutional nature of these roundtables, established by Royal Decree, must be emphasized; this confers formality and recognition on them on the part of the entities involved and guarantees the continuity of the process. It also should be emphasized that the dialogue process initiated by the Social Dialogue Declaration, which has been promoted by the Spanish Government since 2004, has generated a particularly favourable climate for the establishment of the dialogue roundtables. Several roundtables were established in this framework to discuss different issues, although not all have been institutionalized.

A little over three years since the date of their establishment, the dialogue roundtables experience has now entered a consultation phase. The answers collected in the interviews respond in some cases to the expectations created and in others to the results obtained. It is apparent from interviews that interviewees hold a very high opinion of this space and consider it to be an innovative instrument with great future potential.

The following summary reflects the most notable and frequent statements and suggestions by interviewees:

In general, the interviewees were confident that the government was open to listening to the concerns and demands from the various actors involved. It has been verified that commitments and requests emanating from the roundtables have progressively been incorporated into government action, and an intensification of the roundtables' influence on climate change policies and strategies is expected.

*The roundtables are a valued instrument for the Government, employer and trade union organizations.* The great majority of the interviewees approve of the initiative; when criticisms are given, they have to do with the limited scope of its results rather than to any negative opinion about the roundtables themselves.

This positive assessments is related to the practical results achieved, such as the formulation of indicators, the establishment of the diffuse roundtable, the integration of *benchmarking* criteria in allowance allocation, etc. It is important to continue advancing in this direction in order to reinforce the positive feedback on the roundtables.

*The roundtables are a positive instrument of information and understanding of the problem.* They are considered to be an extremely useful instrument for exchange of information, tracking of developments and pooling of concerns and demands. The roundtables are a space to improve the knowledge the parties have on the subject and have been a great incentive for some of the agents. Employers and workers receive “formal” information on government measures and the government receives “formal” information on problems that they can cause in the employer and trade union sectors.

Moreover, as some interviewees emphasize, the roundtables allow for a shared and intelligent reading of data, which helps in avoiding over-simplified analyses.

*The roundtables are an instrument that facilitates consensus.* Particular attention was drawn to their contribution to dialogue and understanding of the challenges encountered by the different sectors, thereby minimizing the risk of conflict. They have had a calming effect during the initial period of implementation of the NAP both for the trade union and employer parties regarding the potential impacts of implementation for the sectors. This could prove to be one of the most notable effects of the experience; it also maintains its validity during the post-Kyoto debates: the policies and measures formulated and implemented in connection with climate change may be viewed with uneasiness by some sectors. An instrument that advances a serene understanding may constitute a key to the success of the post-Kyoto measures.

*The roundtables have sparked internal actions in each sectors and type of agent.* Some employer and trade union organizations have initiated their own internal actions of information, of training or for debate, as a result of the existence of the roundtables. The fact of being able to participate in the roundtables has sparked initiatives by different organizations with a view to guaranteeing appropriate participation in the roundtables. Of course, the organizations that engage in such activities will have a clearer understanding of the changes and will be better prepared to interact.

*The roundtables can be an instrument towards a more precise monitoring.* Following the initial period, new prospects are emerging regarding the activities of the roundtables. With the second NAP adopted and in force for the coming years, an important qualitative leap is anticipated in terms of the activities of the roundtables, evolving from their predominantly informative character which they have had until now, to assume functions as observatory and advisory body to the government in the post-Kyoto negotiations.

This new dimension of the roundtables also implies an intensification of their work, which will have an impact on the frequency and content of discussions. It also requires the creation of new instruments or improvements to existing instruments for gathering, tracking and assessing data. Indicators will serve to

analyse the evolution of the sectors, anticipate possible conflicts and, eventually, design strategies and measures to minimize them. A significant proportion of the workload involved in this new role is being assumed by the government, including the disaggregation of specific data and information, which would not have occurred if the dialogue roundtables did not exist. This obvious result will help all of the other agents, including the Government itself, to better follow up on the measures pursued.

*The functioning of the roundtables represents an additional burden of work for the Government which must be anticipated, with the allocation of timely funding.* The replies received from the Government side revealed, on the one hand, a desire to maintain the status quo on account of resources which are insufficient for taking on the anticipated additional burden and, on the other, a tendency towards recognition of the need to expand functions. In particular, The Ministry of Labour and Social Affairs assumed the latter position, and the Ministry of Environment showed support despite the difficulties identified. The position of the Ministry for Industry is much less supportive of expansion.

*The roundtables can be a valid model for other sectors or initiatives.* In Spain, the establishment of the roundtable covering diffuse sectors, which are not affected by the NAP, constitutes an important step forward. The industrial sectors find in the roundtable a response to their demands regarding the distribution of responsibility in reducing emissions. The incorporation of these sectors takes the discussion beyond the initially restricted sphere of involvement of the seven sectors affected by the NAP, and also anticipates potential changes in the European Directive, which will possibly include these diffuse sectors during the post-Kyoto period, thereby demonstrating in a spontaneous way how such an instrument can add momentum to the anticipation of changes and transformations.

It is to be hoped that the aforementioned growth and maturing of the space galvanizes the process as a space for negotiation between parties and between sectors, strengthening it and increasing its influence and importance during the decision-making process.

*The true scope of the roundtables remains to be seen.* Key objectives such as anticipating adverse effects or guaranteeing social cohesion can only be evaluated later on. It is clear that this will remain difficult under current arrangements (of annual meetings).

We may conclude that the experience is extremely positive for the three parties (government, trade union organizations and employer organizations), with a potential that has not yet been fully realized, and whose scope will depend largely on the will of the parties and their readiness to maintain mature and productive dialogue in dealing with the enormous challenges they face.

We are of the view that this experience could readily be replicated in other countries, with or without obligations to reduce or limit emissions, where conditions exist for the functioning of institutions that can accommodate processes of this nature.

Clearly, the Spanish context for reactivating social dialogue is an important element that does not exist in all countries. Moreover, as in the Spanish case, some actors must take an active part in proposing and designing these spaces.



For the existence of mature and democratic dialogue it is not enough that a political will exists on the part of government; it also requires the existence of an organized civil society which is able to express its demands and needs through its organizations. A real participation also requires a guarantee of full access to information.

In addition, it is important that the roundtables are defined as instruments for complying with international obligations, not discussing them.

We believe that this moment in time, when it is critical that effective commitments be assumed in the wake of the Kyoto Protocol, constitutes a perfect opportunity to expand and shape society's debate on the subject. Spaces such as the one described in this study are concrete examples of how to confront the complexity of these challenges in a democratic and participatory way.

## ANNEXES

### ***ANNEX I – Sources of Information, Bibliography and Normative Framework***

#### **Sources of Information:**

- **ANFEVI** – Asociación Nacional de Fabricantes de Envases de Vidrio -<http://www.anfevi.com>
- **ASCER** – Asociación Española de Fabricantes de Azulejos y Pavimentos Cerámicos – <http://www.ascer.es>
- **ASPAPEL** – Asociación Española de Fabricantes de Pasta, Papel y Cartón - <http://www.aspapel.es>
- **CEOE** Confederación Española de Organizaciones Empresariales– <http://www.ceoe.es>
- **HISPALYT** – Asociación Española de Fabricantes de Ladrillos y Tejas de Arcilla Cocida - <http://www.hispalyt.es>
- **IDAE** – Instituto para la Diversificación y Ahorro de Energía (Institute for the Diversification of Energy Saving)– <http://www.idae.es>
- **INE** – Instituto Nacional de Estadística (National Statistics Institute)- <http://www.ine.es>
- **ISTAS-CCOO** – Instituto Sindical de Trabajo, Ambiente y Salud (Trade Union Institute for Employment, Environment and Health)- <http://www.istas.ccoo.es>
- **Ministry of the Environment** – <http://www.mma.es>
- **Ministry of Industry, Tourism and Trade** – <http://www.mitc.es>
- **Ministry of Labour and Social Affairs** – <http://www.mtas.es>
- **UNESA** – Asociación Española de la Industria Eléctrica - <http://www.unesa.es>
- **UNESID** – <http://www.unesid.org>

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- **Report on Verified CO2 Emissions in the Industrial Sectors** Ministry for Industry Tourism and Trade, 2006.
- **Renewable Energy Plan 2005-2010**. Available <http://www.mityc.es>
- **National Commission Allowances Allocation Plan 2005-2007**. Available <http://www.mma.es>
- **National Commission Allowances Allocation Plan 2008-2012**. Available <http://www.mma.es>
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- **Conclusions and Proposals regarding the National Allocation Plan. Pulp, Paper and Cardboard Sector**. 2007. Available <http://istas.ccoo.es>
- **Conclusions and Proposals regarding the National Allocation Plan. Oil Refining Sector**. 2007. Available <http://istas.ccoo.es>
- **Conclusions and Proposals regarding the National Allocation Plan. Iron and Steel Sector**. 2007. Available <http://istas.ccoo.es>
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- Nieto, J.; Santamarta, J.. **Evolution de las Emisiones de Gases de Efecto Invernadero en España (1990-2005)**. CCOO. 2006. Available <http://www.istas.ccoo.es>
- *Observatory on Competitiveness in the paper industry*. 2006.
- *PLATEA. Research Strategy Agenda. 2005*.
- *Riechmann, Jorge. Employment Effects of Combating Climate Change. Boletín Daphnia, número 25. julio de 2001*. Available <http://www.istas.net/web/daphnia.asp?articulo=233>
- Sánchez López, A.B **Impact of Application of the Kyoto Protocol and of the National emissions Allocation Plan on the Spanish industrial sectors (with particular attention to SME)**. ISTAS-CCOO.2006. Available <http://istas.ccoo.es>

## Spanish Normative Framework:

Selection of Spanish normative framework regarding emissions allowance trading and the National emission allowances Allocation Plan, available on the Ministry of the Environment website [http://www.mma.es/portal/secciones/cambio\\_climatico/documentacion\\_cc/](http://www.mma.es/portal/secciones/cambio_climatico/documentacion_cc/)

- Act 5/2009, of 29 June. The second additional provisions embodies information obligations for sectors joining the GHG emission allowances trading system.
- Global/sectoral effects of application of Act 1/2005 in 2008.
- Definitive individual allocation of the first series of new entrants to the Plan 2008-2012: Council of Ministers Agreement of 20 March 2009.
- National Allocation Plan 2008-2012. Agreement of the Council of Ministers of 2 November 2007.
- Royal Decree 1402/2007 of 29 October, amending Royal Decree 1370/2006, of 24 November, enacting the National GHG emissions allowances Allocation Plan, 2008-2012.
- Commission Decision, and 26 February 2007 regarding the national emission allowances allocation plan 2008-2012.
- Global/sectoral effects of application of Act 1/2005 in 2007.
- Correction of errors in Royal Decree 1031/2007, of 20 July, developing the framework for participation in Kyoto Protocol flexibility mechanisms.
- Royal Decree 1031/2007, of 20 July, developing the framework for participation in Kyoto Protocol flexibility mechanisms.
- Royal Decree 1030/2007, of 20 July, amending Royal Decree 1370/2006, of 24 November, enacting the National GHG emission allowances Allocation Plan, 2008-2012.
- Report on implementation of emission allowances trading in Spain, 2006 (article 21 of directive 2003/87/CE).
- Report on application, installation by installation, in 2006.
- Royal Decree 1370/2006, of 24 November, enacting the National GHG emission allowances Allocation Plan, 2008-2012.
- Allocation to affected installations following expansion of the scope of Act: Agreement of the Council of Ministers of 14 July 2006.
- Royal Decree 777/2006, of 23 June amending Royal Decree 1866/2004, of 6 September, and enacting the National emission allowances Allocation Plan, 2005-2007.
- MAM Order/1445/2006, of 9 May, in regard to tariffs for the National Emission Allowances Register.
- Royal Decree 202/2006, of 17 February, regulating the composition and functioning of the social dialogue roundtables, embodied in Act 1/2005, article 14, of 9 March, regulating GHG emission allowances trading.

- Agreement of the Council of Ministers, of 31 March 2006, adopting the individual allocation of emission allowances to installations applying for allocation as new entrants included in the scope of application of Act 1/2005, of 9 March, which regulates the GHG emission allowances trading scheme.
- Resolution of 8 February 2006, of the Accounting and Auditing Institute, adopting standards for the registration, valuing and information on GHG emission allowances.
- Royal Decree 1315/2005, of 4 November, laying down the framework for systems to monitor and verify GHG emissions by installation as included in the scope of application of Act 1/2005, of 9 March, which regulates the GHG emission allowances trading scheme.
- Royal Decree 1264/2005, of 21 October, regulating the organization and functioning of the national emissions allowances register.
- Resolution of 21 October 2005, of the General Secretariat for Pollution Prevention and Climate Change, publicizing the Agreements of the Council of Ministers, of 19 November 2004, whereby Sociedad de Gestión de los Sistemas de Registro, Compensación y Liquidación de Valores, S.A. is awarded responsibility for administering a National Commission Allowances Register.
- Act 1/2005, of 9 March, regulating trading of GHG emission allowances.
- Act 16/2002<sup>24</sup>, of 1 July, on integrated pollution prevention and control (IPPC).

## **ANNEX II - Verified emissions and production by industrial sectors - Period 2005 and 2006**

TOTAL SECTOR NO ENERGETICO	Emissions	Production 2005	Emissions Intensity 2005	Emissions	Production 2006	Emissions Intensity 2005	Variation emissions intensity 05/06
	2005			2006			
	Mt CO <sub>2</sub>	Mt product	MtCO <sub>2</sub> /Mt product	Mt CO <sub>2</sub>	Mt product	MtCO <sub>2</sub> /Mt product	

Iron and Steel	10,962,096	17,814,559	0.62	10,748,865	18,391,044	0.58	-5.0%
Coke	80,784	302,446	0.27	54,370	253,558	0.21	-19.7%
Cement	27,384,551	31,632,432	0.87	27,366,037	32,002,650	0.86	-1.2%
Lime	2,063,211	2,027,000	1.02	2,205,130	2,152,000	1.02	0.7%
Bricks and Tiles	4,097,006	21,462,531	0.19	4,146,143	22,390,059	0.19	-3.0%
Wall and floor tiles (*)	1,360,536	10,801,290	0.13	1,381,528	11,217,801	0.12	-2.2%
Glass	1,993,225	4,034,422	0.49	1,996,937	4,059,133	0.49	-0.4%
Frits	579,176	905,087	0.64	551,469	891,074	0.62	-3.3%
Pulp, paper and cardboard	4,751,859	7,669,800	0.62	4,613,395	8,391,000	0.55	-11.3%
<b>TOTAL</b>	<b>53,272,445</b>	<b>96,649,567</b>	<b>0.55</b>	<b>53,063,874</b>	<b>99,748,319</b>	<b>0.53</b>	<b>-3.5%</b>
		growth 06/ 05		-0.40%	3.21%	-3.49%	

(\*) 2005 figures for tiles extrapolated to 2006 installations

Fuente: MITyC, 2006

## ***ANNEX III – Survey of participants in social dialogue roundtables***



**Sustainlabour**  
Fundación Laboral Internacional  
para el Desarrollo Sostenible

### **Social Dialogue roundtables Case Study Interview**

Place/Date:

Interviewer:

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Interviewee data

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Name:

Institution represented/position:

Roundtable in which you participate:

Contact (mail/telephone)

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1. Objectives, results, expectations

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1.1 In general, what is your opinion of the roundtables? What are their main objectives?

1.2. Do you consider that the roundtable discussions have an impact on policy decisions, plans and strategies on climate change?

1.3. What are your expectations for the future of the roundtables and their results (in general and for each sector)?

1.4. What do you consider to be the areas of potencial, and limitations of the sectoral roundtables as an instrument to contribute to achieving NAP compliance?

1.5. What do you consider to be their main achievement to date?

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## 2. Contribution of the roundtables for the sector

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2.1. What in your opinion are the challenges inherent in the NAP for your sector? Do you consider that the provision made for your sector in the 2005/2007 NAP was appropriate? What has its impact been in terms of employment and competitiveness?

2.2. Do you consider that the roundtables contribute to achieving a better understanding of these challenges?

2.3. Do they contribute to enhancing dialogue between the different actors in the sector? What do they contribute in terms of preventing possible adverse effects?

2.4. Have they promoted or served as an incentive for any type of action in your organization (Seminars, prior meetings, dissemination or awareness-raising measures)?

2.5. What are the main proposals to have emerged from the roundtables to respond to the challenges faced by this sector?

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## 3. Functioning of the roundtables

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3.1. What is your opinion of the functioning of the roundtables: are they convened with sufficient prior notice to prepare your participation, are meetings frequent enough and long enough and is the necessary information provided to allow appropriate participation?

3.2. What information is used for roundtable discussions? What other sources of information? Does your organization work with its own sources? If so, could you provide us with a copy?

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## 4. Suggestions

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4.1. On how to improve the functioning of the roundtables.

4.2. On how the roundtables can more effectively contribute to NAP compliance.

4.3. On how the roundtables can better contribute to competitiveness of the sector/ industry in Spain.