VOICE OF THE STUDENTS: HOW CAN THE EU TAKE THE GLOBAL LEAD ON TACKLING CLIMATE CHANGE?

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Abstract

The EU has always been at the forefront of tackling environmental issues. This paper responds to the EU's 'call for action' towards addressing the issue of climate change – a key priority for the European Commission in the 2030 policy perspective. The topic is addressed through a focus group that seeks to identify and disseminate possible approaches through which the EU can leverage its international 'actorness' in negotiating a straightforward and binding global agreement for action in climate change mitigation. The focus group involves a sample of students, beneficiaries of an environmentally focused Jean Monnet teaching module (TAG-EU). The diverse academic background of the students (coming from social, natural and exact sciences) provides a unique point of view in tackling this ardent issue and can bring valuable and interdisciplinary contributions to the discussion on climate change action.

Keywords: climate change; EU policy; environmental protection; interdisciplinary approach
JEL Classification: Q54; Q58

Introduction

Independent surveys by NASA and the National Oceanic and Atmospheric Administration (NOAA) have shown, with 94% certainty, that 2015 was the hottest year since modern temperature record keeping began in 1880 (NASA, 2016). In spite of the Kyoto Protocol ending without a successor agreement in place, global leaders still fail to take decisive action on the issue of climate change. However, the 2015 UN Climate Change Conference (COP 21) has produced a principle agreement regarding the limitation of environmental impact by the World's largest polluters, although this in itself is non-binding (United Nations, 2016). The EU has always been at the forefront of tackling climate change related issues, such as: low carbon economy, emissions reduction, energy efficiency, sustainable exploitation of natural resources and general improvement of environmental protection standards.

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Within this context, the aim of the paper is to identify and disseminate possible approaches through which the EU can leverage its international 'actorness' in negotiating a straightforward and binding global agreement for action in climate change mitigation. This is approached from the perspective of a sample of students with a diverse academic background, who have been educated with regard to EU institutions and governance, as well as environmental policies and issues. The students views have been collected using a mix of qualitative methods: a focus group and a short survey using a single 'open-ended response' question.

Beyond the introduction, the paper includes three sections. The first section surveys the main issues related to how climate change is perceived and tackled within the European Union. The second provides an outline of the methodology and the context of the research. The third presents the results of the study and provides a discussion on the innovativeness and the feasibility of the proposed climate change mitigation approaches. The final part of this paper is dedicated to concluding remarks regarding the implications of the research and future steps in the development of the "Voice of the Students" series.

1. The issue of climate change and EU measures

Being aware of the impact of climate change on Earth and human society, the European Commission has had, over time, several initiatives in this regard. Reducing carbon dioxide emissions through renewable energy projects, improving energy performance or taxing energy products represent concrete steps in implementing a policy of limiting climate change after 1991.

The adoption by the European Union of the provisions related to the "Kyoto Protocol to the United Nations Framework - Convention on Climate Change", held in 1997, represented a significant challenge for European countries with a great impact on environmental policy and on all other policies adopted at Community level (EUR-Lex, 2016).

Identifying and implementing measures and instruments related to climate change mitigation at the European level have long been and still are part of a gradual process subordinated to a well-defined and integrated strategy.

Taking into consideration the dangers raised regarding the dramatic changes generated by pollution and environmental degradation, the Kyoto Protocol has expressed the importance of: reducing (for the beginning by 5%) greenhouse gas emissions in developed countries, increasing energy efficiency and identifying sources of "green" energy generation. Those ambitious goals required the adoption of concrete measures in the Environmental Action Programmes (EAP) of the European Union.

Consequently, in June 2000, the first European Climate Change Programme (ECCP) for the 2000-2004 period was launched. Its main role was to implement the Kyoto Protocol (European Commission, 2016a).

Under this programme, measures for the identification of the most effective policies to reduce greenhouse gas emissions have been proposed. The objectives of the First European Climate Change Programme are included in the general objectives of the Sixth Environmental Action Programme entitled "Environment 2010: our future, our choice". Under this Action Programme, the mitigation of climate change is an important goal of the European policy of greenhouse gas emissions reduction. The aim is to prevent ozone layer depletion and global warming, phenomena that cause changes to Earth's climate. The action intended to solve problems both in the short and long term, by meeting the objectives of the Kyoto Protocol (reduction of emissions by 2008-2012 greenhouse gas emissions by 8% compared to 1990), as well as meeting the targets set for 2020 (reducing emissions by 20-40% by means of an effective international agreement).

Putting the first ECCP (2000-2004) into practice required a joint effort by several stakeholder groups at the European level. Within this programme, 11 working groups were formed with the goal of identifying concrete measures to reduce pollution and greenhouse gas emissions by focusing on the following areas: emissions trading, energy supply, energy demand, energy efficiency in end-use equipment and industrial processes, transport, industry, research, agriculture, sinks in agricultural soils, forest-related sinks, and the Joint Implementation and Clean Development Mechanism. (European Commission, 2016a).

Launched in October 2005 as a continuation of the first programme, the Second European Climate Change Programme (ECCP II) „has explored further cost-effective options for reducing greenhouse gas emissions in synergy with the EU's Lisbon strategy' for increasing economic growth and job creation" (European Commission, 2016b). ECCP II included new working groups with the following areas of focus: the review of ECCP I, aviation, CO2 and cars, carbon capture and storage, adaptation and reducing greenhouse gas emissions from ships.

Moreover, due to the broad scope and high importance of climate change and sustainable development issues, through the Lisbon Treaty (December 1st, 2009), the EU decided to assume an important role in the proposal and enforcement of international agreements on these topics. It is considered that all states need to act in a coordinated and coherent way so that the objectives of the Kyoto protocol can be met.

The current Environmental Action Programme (EAP 7 for the period 2013-2020) proposes important measures in the area of adopting and implementing a strategy of adapting to climate change. In order to put this strategy into practice, action is needed at the level of all EU member

states and regions in order to limit the negative climate effects and to meet some specific objectives (European Commission, 2013):

- By 2020: reducing greenhouse gas emissions by 20% compared to 1990, reaching a share of at least 20% renewable energy within to energy consumption, increasing energy efficiency by 20%;

- By 2030: reducing greenhouse gas emissions by 40% compared to 1990, reaching a share of at least 27% renewable energy within energy consumption, increasing energy efficiency by 27%;

- By 2050: reducing greenhouse gas emissions by 85-90% compared to 1990.

In order to reach these objectives, the EU showed a willingness to allocate 20% of the 2013-2020 budget towards reducing the impact of human activities on the environment and climate. This integrated EU approach takes into consideration the concerns of each nation and individual for reducing the risks of climate change and global warming.

Globally, a wider concern exists with regard to the importance and the impact of climate change on individuals. In a study by Stokes *et al.* (2015), the authors found that a median of 51% of respondents believe that humans are already being harmed by climate change, while 28% consider that people will be harmed in the next few years.

Although some consider that this concern is unfounded, a large part of researchers from various fields agree with the fact that the effects of climate change are not only becoming felt, but they also have the potential to influence human life and activity in a significant way. Suggestively entitled „Consensus on consensus: a synthesis of consensus estimates on human-caused global warming", the paper written by John Cook et al. in 2016 analyses the consistency of internationally published studies in the area of climate change. By assessing several works, the authors find a 97% consensus in published climate research, which is considered to be robust and consistent with other previous surveys of climate scientists and of peer-reviewed studies (Cook *et al.*, 2016). Even if the authors of the study have identified various levels of intensity with regard to the connection between human activity and climate change, they conclude that „from a broader perspective, it doesn't matter if the consensus number is 90% or 100%. The level of scientific agreement on AGW (anthropogenic global warming) is overwhelmingly high because the supporting evidence is overwhelmingly strong." (Cook *et al.*, 2016, p. 6)

This scientific proof fully supports the EU's initiative in adopting concrete measures of reducing the impact of human activities on the climate. It also requires that individuals at all levels become increasingly involved in raising awareness and acting to stop this phenomenon. The opinions of various specialists (including those expressed by students) who are familiarized with the concepts of European policies in the field of environment can provide a 'witness instrument' for

identifying the manner in which Environmental Action Programmes are recognised and supported among members of the informed public.

2. Methodology
2.1. Context of the research

EU environmental policy is moving towards increasingly ambitious targets, while the EU consumer markets are becoming more green-oriented. These trends are expected to generate a demand for staff specialized in environmental policy and management on the job market.

Within this context, an academic and professional gap with regard to environmental policy training was identified at a regional level. This issue drew the attention of the CERNESIM Environmental Research Center, a recently established research centre at the Alexandru Ioan Cuza University of Iaşi, which involves teaching and research staff from five faculties: Biology, Chemistry, Economics and Business Administration, Geography-Geology and Physics. The "Think Green, Act Green: Environmental Protection in a United Europe" (TAG-EU) Jean Monnet Module, developed by CERNESIM and supported by the ERASMUS+ Programme of the European Union, provides a set of tailor-made courses on European integration and environmental protection and policies (EP). The primary beneficiaries of TAG-EU are students from all five CERNESIM faculties, who do not have access to EU and EP studies in their standard curriculum.

2.2. The focus group method

The first research method used in the current study was a focus group involving students participating in the TAG-EU Module. This method was chosen for several reasons (Malhotra and Birks, 2007): a) it is able to generate synergy, especially considering the diverse academic background of the participants; b) it stimulates participants to express their ideas through free-flowing discussions, bridging the gap between students and researchers/lecturers acting as moderators; c) it nurtures spontaneity and the provision of unconventional and innovative ideas; d) it insures that the topic is approached in the logic and the language that the students are familiar and comfortable with, as opposed to using a somewhat rigidly structured and highly technical questionnaire based survey.

The research problem to be approached – leveraging the EU's international 'actorness' in tackling climate change – was established based on: emerging environmental studies (NASA, 2016), the conclusions of the most recent United Nations conference on climate change (United

Nations, 2016), as well as the direct observations of the researchers and students involved in the TAG-EU project.

Prior to the actual discussion on the research problem, the participants took part in an introductory discussion of how environmental protection and sustainable development have become an integral part of the EU's long term objectives and principles. The purpose of this introduction was to serve as a warm-up for the focus group exercise (introducing and familiarizing the participants with topics). The actual topics to be discussed were presented in the form of two questions: "How can the EU mitigate climate change through internal measures?" and "How can the EU leverage its international 'actorness' in negotiating a straightforward and binding global agreement for action on climate change?". For each question, a specific set of policy directions for channelling the discussion was proposed (i.e. geographical coverage and economic/activity sectors where specific regulations are needed).

The focus group involved 12 students from the pool of TAG-EU beneficiaries, who showed interest in taking part in this exercise and, furthermore, proved to be proficient in understanding and debating climate change issues and how EU institutions function. The focus group took place in a conference room that provides a relaxing and stimulating working environment (offering a 360 degree panoramic view of the city, usually used for limited specialized events). The discussion had one of the TAG-EU lecturers as a main moderator, assisted by the two other members of the teaching staff. The overall duration of the exercise, including the introductory discussions and conclusions was one and a half hours.

2.3. The 'top 3' method

The focus group was followed by a detailed presentation of the EU's Environmental Action Programmes (Mihai *et al.*, 2016). Subsequently, a second qualitative assessment of the students' opinions on the previously discussed topic was performed. This was implemented through an ad-hoc designed research method (the 'top 3'), which is based on a short survey using a single 'open-ended response' question: "What are the top 3 most important measures that you think the EU should take in order to better manage climate change issues?".

The purpose of this follow-up exercise is to observe whether gaining specific knowledge on the EU's policy measures in the area of environment (included in the EAPs) affects the students' views on what other measures the EU can adopt in order to mitigate climate change. The responses were analysed and summarized based on content analysis, similar to the approach used for the focus group.

2.4. Limitations

With regard to the focus group method, some specific limitations arise, such as: the polarization of the dialogue around a single person or a single idea, disruptions of discussions or deviations from the main topic. These issues were managed by the moderator and the assistants, who brought the discussions back on track using the above mentioned list of questions and policy directions. However, the overall reliability of the results is limited, given that the focus group was performed only once on a single group of individuals (Munteanu *et al.*, 2008).

As with most qualitative research methods, the mixed approach (focus group and the 'top 3' method) used in the current study is subject to limitations related to the subjective interpretation of the responses.

3. Results

The data from the two research methods used was assembled and then reduced through content analysis and coding (Malhotra and Birks, 2007). It was obvious during the reduction process that the data gathered during the focus group was more heterogeneous and less focused on overarching issues, making the coding procedure more difficult. The solutions provided during this exercise proved to be somewhat less feasible, but nevertheless more diverse and innovative.

Table 1 provides a summary of the ideas generated during the focus group. It also classifies the proposed EU policy measures around common descriptors, as well as the two geographical scopes of impact (i.e. within the EU and as a global actor).

Table 1. EU policies on climate change mitigation (internal and global scope of impact)

How can the EU mitigate climate change through internal measures?

- **Sanctioning of negative behaviour** (focused more towards companies): "more restrictive enforcement for littering (especially in areas with a high incidence of dumping)", "impose taxes on polluters", "restrictions on *dirty* power plants"

- **Rewarding of positive behaviour** (impact on companies and individuals): "support for recycling start-up companies", "financial support for companies that gather abandoned garbage and sort/recycle it", "funding for smart/greenhouses", "rewards for recycling different materials (e.g. cash for cans and bottles)", "support green/efficient energy"

- **Partnerships with third parties**: "intervention in the education system from the early stages (teach pupils that climate change exists and what they can do to prevent it)", "more collaboration with churches and media to raise awareness on climate change", "create a platform for networking between industry, services, NGOs to exchange information and solutions", "nurture industrial symbiosis (a company's waste could be another company's raw material)"

- **Direct budget allocation**: "more transparency in managing the budget for environmental issues (fines for polluting should fund mitigation projects)", "taxes on polluters should support green

energy companies", "increased sanctions/fines can generate more money for green subsidies"

- **Build awareness within companies and the general public**: "creating an environmental assessment committee that can generate audits to show companies how they can earn/save money by acting greener", "positive reinforcement of positive behaviour: use numbers and visual stimuli to show the positive effects of acting in a climate conscious manner"

How can the EU leverage its international 'actorness' in negotiating a straightforward and binding global agreement for action on climate change?

- **Promotion of climate change issues through various media and methods**: "raise awareness through videos that show the advantages of a healthy environment (distribute via internet, foreign TV stations)", "promote responsible behaviour towards the environment in major EU tourist attractions", "use opinion leaders, actors, celebrities, trend setters to promote climate friendly behaviour – make environmental protection cool", "publicise scientific evidence/proof of climate change"

- **Funding for research**: "support mobility and exchange between EU and non-EU countries for researcher in the field of climate change", "funding for research and publication in the field of group/societal psychology with an environmental focus (how to convince people that their behaviour is harmful for the planet)"

- **International trade restrictions**: "stop products that are harmful for the environment from entering the EU, promoting international safety standards"

- **Build ties with climate advocates**: "consolidate relationships with international allies on every continent (e.g. USA, Norway, Japan, Iceland, Uruguay etc.)", "associate with politicians who promote action on climate change in various countries"

- **Support technological innovation**: "financially motivate companies across the world to innovate and patent their eco-friendly technologies in the EU", "act as a mediator to connect eco-innovation NGOs and companies with governments worldwide in order to implement climate friendly projects"

Source: authors' representation

During the analysis of the data collected through the 'top 3' method, we noticed that the information gathered was easier to code and subsequently process. This suggests that during the EAP presentation, the opinions of the students became more focused and grounded in practice, allowing them to then express clearer, more realistic and structured solutions to the overall issue.

Table 2. EU policies on climate change mitigation (summary of 'top 3')

What are the top 3 most important measures that you think the EU should take in order to better manage climate change issues? (answers are summarized; categories are listed in order of frequency of appearance)

- **Education and public awareness on climate change and other environmental issues (schoolchildren and adults):** "make it mandatory for every school to make the children understand the situation and learn about efficient ways of fighting global warming", "make adults realize the importance of a healthy environment", "invest more in people's education about climate change and pollution", "spread awareness of climate change being real and present solutions", "provide better access to information and build awareness of how our reckless actions can impact the earth and its resources" etc.

- **Eco-farming / support for sustainable functioning of the food industry:** "encourage small farms to use eco-energy and to produce eco-products", "encourage the planting of more trees", "promoting vegetarianism: less livestock generates less pollution, less killing other animals generates a better world", "efficient use of natural resources / valuing the natural capital efficiently and non-invasively" etc.

- **Research and support for energy efficiency and less polluting energy:** "sustain the implementation of green power plants not only in houses, but also in schools, universities, hospitals", "power the industry only with clean electricity (solar panels, wind turbines, atomic power plants)", "put efforts in finding new ways of providing energy with low pollution", "research more efficient ways of providing energy" etc.

- **Control of pollution from transportation / restrictions on use of automobiles:** "lower the number of cars or impose non-polluting means of transport", "try to do something about cars' emissions like not allowing cars to be driven in some intervals of time" etc.

- **Financial help for eco-businesses:** "support and encourage the development of environmentally friendly companies", "support financially small start-ups/projects which aim to improve the natural environment" etc.

- **Other:** "make the cities more sustainable", "conserve the biodiversity of the world" etc.

Source: authors' representation

Table 2 provides a summary of the responses collected during the 'top 3' activity. When comparing these responses with the ones included in Table 1, one can notice that the 'top 3' measures are more focused on internal EU policies and standards. An overwhelming majority of the responses are oriented towards positive stimuli, such as education, financial aid, subsidies and rewards. Education is considered to be an essential pillar for the long term mitigation of climate change and it should address the needs of the current as well as the future generations (adults and schoolchildren). In the short term, policies can encourage ecological farming, the use of non-polluting means of transportations and the development of eco-businesses and a 'green economy'.

Conclusions

This research endeavour was motivated by the need for a new perspective on how to address the stagnant issue of taking global action on climate change. The study involved the use of two qualitative research methods, one of which was a focus group followed by an ad-hoc survey based assessment. Both methods involved 12 students that proved to be proficient in understanding and debating environmental issues and how EU institutions function.

The combined results of the research suggest that the EU is more likely to be successful in mitigating climate change by imposing best practices and regulations at an internal level and then serving as a benchmark or positive example for the rest of the world. Whether it will be global

political leaders, NGOs, companies or the people themselves, if the EU is persistent in this approach the positive examples that it sets out will become desirable and requested in other areas of the world as well. However, it should be expected that such fundamental mentality changes can only happen in the long term and in the context of macroeconomic stability (which would allow governments and people to focus on the quality of life and not on financial insecurity). The only foreseeable exceptions that can help the world to leapfrog towards a more sustainable existence can be life changing events such as: environmental disasters, rampant intensification of air, water and soil pollution or technological breakthroughs (which are more likely to occur if eco-innovation and research is aided though policies).

This first instalment of the "Voice of the Students" series has focused on the issue of climate change – an ardent issue that is being discussed at all levels of society – and on how the European Union can leverage its international 'actorness' in promoting sustainable development at a global level. The future editions of this series will seek to tackle other major issues related to the environment and discuss what the EU can do to address them. The innovative aspect of the research is that the proposed measures are identified and presented from the perspective of young students with academic backgrounds in social, natural and exact sciences. It is hoped that such contributions can provide inspiration to policy makers (who may discover unconventional solutions to challenging issues), NGOs (who may discover fresh arguments to support their specific causes) and researchers (who may be able to assess and tackle specific environmental issues from a novel perspective).

Acknowledgements

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