

Political Instruments and its Impact on European Climate Change Programme

The objective of the article is to identify and analyze the impact of EU policy instruments for the implementation of the European Climate Change Program. Issues investigated in terms of political realism, based on a scientific approach of functionalism and institutionalism. The aim of the research consists of analysing the EU implemented policies and its possible qualitative effects on the environmental situation. Global climate change is one of the main problems facing the whole of humanity today. The European Union, as a promising grouping that brings together 28 European countries in 2000 create comprehensive package of political measures, regarding the reducing of greenhouse gas emissions named European Climate Change Programme I and II. Due to its powerful political aspect, were successfully connected the general responsibility and collaboration of the European Commission, national experts, industry, and the non-governmental organizations. Awareness of widening the problem of climate change led to the introduction of EU policy instruments to improve the environment. Nevertheless, despite the fact that began to appear some gaps in their implementation strategy, the EU has made a far step forward in stabilizing the environment situation and adaptation to climate changes. Therefore, the practical value of research is to adopt and adapt EU political instruments from the European level to the regional level and each country in particular.

Key words: climate change, ECCP, ECCP II, political instruments, CO₂, challenges, European Union, EU.

Globalization is the process of economic, political, social and cultural integration and global unitization. As a result of globalization the world becomes more interdependent. The number of ecological problems for groups of countries constantly increases. One of these is global climate change, the scientific research of which began to be observed only in the XIXth century. Since that time, the best scientists and climatologists began to investigate and diffuse learning about the global nature of the climate changes. Introduced in 2000, the European Climate Change Programme was aimed at improving the environment and has become one of the most successful EU projects. However, when environmentalists pointed out that the policy of reducing CO₂ emissions in the atmosphere is not enough to stabilize the environment, the EU has decided to introduce additional policy instruments, results of which implementation are analysed.

The European Union has always been committed to tackle climate change and felt the duty to be an example through robust policy-making at the European level. That is why the EU has established the European Climate Change Programme (ECCP) with its comprehensive package of policy measures for reducing greenhouse gas emissions. Every Member State of the EU has to implement its own actions according to the measures specified by the ECCP.

The European Commission launched the first phase of ECCP in 2000 to help to identify the least costly and most environmentally effective policies and other measures that can be taken at European level to cut greenhouse gas emissions [5, p. 5]. The primary goal was to ensure that the EU meets its target for reducing emissions according to the Kyoto Protocol. This Programme requires from EU members a cut in complex emissions of greenhouse gases of up to 8 % of the 1990 level before 2012 [5, p. 6]. The first ECCP was established to examine an extensive range of policy sectors and other potential instruments to reduce greenhouse gas emissions.

The second phase of ECCP started in October 2005 at a stakeholder conference in Brussels. The first ECCP II task was to explore additional cost-effective options to reduce greenhouse gas emissions. It also established new working groups to recover from the effects of climate change, including carbon capture and geological storage, dealing with emissions from aviation, and CO₂ emissions from light-duty vehicles [10, p. 9].

Both phases of ECCP showed important results, thanks to which EU continues its influence on Member States in synergy with recovery policies towards the current climatic situation. The key elements of the EU's climate change strategy are: monitoring mechanisms and their review, emissions trading scheme, links with the Kyoto flexible mechanisms.

The first phase of the European Climate Change Programme was to focus on energy demand and industry [2, p. 8–10] and was divided into several action plans with certain measures, as established by the ECCP Communication in 2001. In this sector, a great number of CO₂ savings are usually combined with good cost-efficiency in consequence of lower energy costs. The interaction of measures such as equipment

labelling, setting minimum standards, awareness campaigns, defining best practices, promoting energy services and other measures, became decisive to improving energy efficiency [6].

There is also the Motor Challenge Programme launched in 2003, which turns into exception of reduction CO₂ emissions strategy. The measures implemented in the transport sector and their subsequent results prove existing difficulties and shows slow progress in a number of key areas. This acquires particular importance in view of the proposed further increase of emissions – 18 % increase (2000) in comparison with 28 % increase (2010) [6, p. 2]. The Commission has proposed several measures that promotes intermodality: railways renewing as well as the quality of service in ports supports a vision of intermodal transport, which may become determinant in reducing CO₂ emissions in the long-term period. The Commission is also working on projects involving urban transport and analyses the promotion of alternative fuels [12, p. 34–36] to reduce the impact of greenhouse gas emissions.

The strategy for CO₂ emissions reduction is now widespread among EU Member States. Such commitments have been proved to produce positive results. It should be noted that all associations committed themselves to review the potential for additional CO₂ reductions.

The projected growth guarantees specific action and preparations on a regulatory framework which have been continued in the second phase of the ECCP. Moreover the control over non- CO₂ emissions industry, under the IPPC Directive [13, p. 8–29] is advertised and updated through periodic reports.

In 2002, the ECCP created three new working groups, the main direction of which was to deal with new subjects, such as «forest related sinks», «agriculture» and «sinks in agricultural soils». It is known that agricultural sector is responsible for 10 % of all emissions of greenhouse gases. In the period 1990–2000, greenhouse gas emissions have been reduced by 6,4 %, on an average of 3,5% overall [6, p. 2]. Because of this, the European Commission expects further trends of r CO₂ reduction as a result of the implemented reforms.

The ECCP working group determined an additional potential reduction of 2,9 % for agricultural-related emissions in the first commitment period and a large N₂O emission reductions [6, p. 2].

The ECCP also established two working groups on carbon reduction in agricultural soils and forests [11, p. 1–9] in order to estimate the EU's potential in this area, as well as its socio-economic and environmental implications. The working groups have identified and estimated a large number of climate-friendly farming and forestry practices that in many cases have been proven as giving positive collateral benefits, such as soil protection or bio-diversity. Its proposals include certain measures to encourage the Member States to adopt them; it would have a positive effect mostly on carbon capture, as well as good agricultural conditions for the soil linked to direct payments and increased funds for rural development, and non-rotational set-aside, which gives the Member States more possibilities to support environmental measures in agriculture.

That is why the increasing demand for renewable resources for the substitution of raw material and energy opens several opportunities for the EU's forestry and agricultural sector. Wood products are a physical pool of carbon and can act as a substitute for more energy-intensive materials [18, p. 322]. Consequently, the production, processing and supplying of renewable raw resources may receive more attention in order to meet the expected growth in demand, taking into account other environmental effects. Such proposals include a specific support scheme for the EU Member-states, to promote energy crops, which was scheduled to be reviewed in 2006 [6].

To achieve these results, the EU created several instruments that could be applied to many market sectors producing fluorinated gases. The diverse and complex nature of the various sectors demands better solutions. That is why the Working Group offers a mixture of policy instruments, shown below, to achieve better results.

Policies to Improve Monitoring and Verification of Emissions. Periodic meetings show that the Working Group has few developed robust systems for monitoring emission amount, and currently they are not always fully utilised.

Lack of information on trading products, which contain fluorinated gases, also adds uncertainty to inventories [14, p. 19]. That is why required emissions data would be essential in case of developing appropriate and effective policy measures for reducing emissions. Although, the best way of improving available data on emissions is to impose legal obligations, which minimize the administrative burden, on

stakeholders to provide up-to-date information to Member State authorities. With regard to this policy, all requirement implications are used in each market sector.

Policies to Improve Containment of Fluorinated Gases. It is also observed that one of the most cost-effective and practical ways of reducing emissions in a great number of market sectors was carried out by three key stages: product manufacturing, product life and product disposal [17, p. 42–43].

Policy measures that would improve containment in one or more of these three stages would also have impact on market sectors that are using fluorinated gases. For many markets, for example, gas insulated switchgear or refrigeration improvements could be expected to be implemented in all three stages. For certain «polluting markets» the impact of improved containment could be much more limited, in particular deposit systems, voluntary agreements, taxation of fluids and leakage regulations [3, p.11]. There was a strong discussion towards searching for the best way to proceed minimum standards for containment that lead to strengthening regular inspection and training. National differences should be also taken into account, as several Member States considerably improved implemented standards in these three key stages of product life.

Policies to Promote Alternative Technologies. A lot of market sectors use from alternative fluids to non-in-kind technologies [3, p. 4]. That could be the best long-term action of reducing direct gas emissions of fluorinated gases.

Some stakeholders strongly believed that market forces would determine all necessary uptake of alternative fluids or non-in-kind technologies by itself. Other stakeholders favoured version that only strong measures such as taxation or legislation of forced technology would change the attitude to alternatives. That is why the majority of the Working Group favoured a two-stage approach such as:

a) Using of «soft» mechanisms (voluntary agreements and active Member State support) continues to provide development and increased use of alternatives.

b) Using monitoring to take stock of the progress and the effectiveness of implemented political actions in each sector of the market, with the opportunity of using the «hard» mechanisms only if there were robust evidence that this is the correct way to proceed [15].

Policies to Restrict the Use of Polluting Gases in Certain Applications. It is also worth noting whether the restrictions of pollutant gases would be appropriate. The broad prohibitions against its usage have always been the element of numerous agreements applied in the EU aimed at the implementation of the Montreal Protocol for ozone polluting substances. Although, the Members of the Working Group believe that such policy measures could cause the detrimental effects including:

- Global increase of greenhouse gas emissions due to inappropriate use of technologies with low energy efficiency.
- Slowing down in phasing out of ozone depleting substances (for example, a lack of confidence in some alternatives).
- A financial burden, with the following failure of technical options for the achievement of Kyoto targets [4].

However, a consensus was reached on the possible implementation of a number of specific usage restrictions where there are perfectly acceptable alternatives or where the use of polluting gases was considered frivolous and hence unnecessary.

Policies to Improve Energy Efficiency. Some markets, especially the air-conditioning, refrigeration and insulating foams markets can be strongly interacted with direct and indirect emissions [20, p. 414–434]. Certain alternative fluids or non-in-kind technologies lead to a decreasing number of direct emissions, but in some circumstances there could be an increase in indirect CO₂ emissions as the result of increased energy consumption.

A difficulty in setting legal standards for energy efficiency rises because of uncertain data about the enormous range of potential applications. The next step in improving energy efficiency has already been taken with the help of legislation ensuring that the least efficient grades of equipment are now banned from sale. That is why the majority of the Working Group favoured a two-stage approach that includes:

a) Using the voluntary agreements, active Member State support and energy efficiency labelling to ensure effectiveness of efforts that improve energy efficiency.

b) Using monitoring of each market sector with the opportunity of using the «hard» mechanisms, only if there were the robust efficiency standards [19, p. 477–499].

Policies to Reduce Emissions from Large Point Sources. Most of the measures described above are applicable to polluting, suited for fluorinated gas emissions from «mass» markets such as foams, aerosols, refrigeration, fire-fighting, etc. Indeed, a significant proportion of polluting gas emissions comes from numerous sources. In particular, as follows:

- SF₆ emissions from large scale magnesium smelting.
- HFC 23 from HCFC 22 manufacture.
- PFC emissions from aluminium smelting [14, p. 3].

They have to be applied under some specific policies. In this case, the Working Group agreed that the best implemented policies for consideration are links to the EU IPPC Directive and voluntary agreements.

EU never stood aside for global humanity problems. Therefore, in the case of global warming, the EU implemented ECCP as a reflection of the Kyoto Protocol for the European Member States. The first phrase of ECCP showed that the implemented instruments had a wide influence on reducing greenhouse gas emissions, but were not sufficiently effective. Therefore, with the introduction of the second phase of ECCP, new types of political instruments were implemented, for better analysis of the situation, for further emission reduction and for adaptation to climate change. After that, even with an improved system of policy instruments, the European society was faced with new challenges.

The EU shows great results of struggling and adaptation to climate changes, applying separate policies in certain situations. For example, the greenhouse gas target for 2020 has been achieved recently [16, p. 64–73]. But there are still some challenges for European society that may cause unpredictable consequences for the social, economic, cultural and political spheres. For the reason for such a result one may point to the economic crisis but never at two key implemented tools, that cover all of Europe's emissions – the Emissions Trading System and the Effort Sharing Decision. These reasons are stringent and over-allocated to drive efforts by governments and the private sector [7].

It is worth noting that the main European goals, set for 2020 are really low and there is a great risk that the next set for 2030 may come to targets reflecting with current policies. Also, the goal for 2050 is too weak: governments of all Member States are aiming at reducing 80 % emissions compared to 1990, while the IPCC reported that developed countries need to aim at least 95 % to stand at level of 2°C of warming by the end of the century. That is why, all these measures may lead to the threat of implemented limits ensuring an incentive of a strong background of introduced policies and action [8, p. 18].

Europe demonstrates an example of its delivering commitments. Europe's emissions should play a diminishing role in the world's contribution to global warming, but it considered its role in setting a benchmark for effort and developing policies is still weak. Great respect demands not only persuading a range of actors for environmental policies, but also in the business, trade, finance and health sectors [1, p. 458–486].

EU strategy is also aimed at supporting and demonstrating the economic benefits, including refining policy options through coordination of climate advocacy work and negative economic impact [9, p. 21–23] at the national level of several countries as well as at union level. To reinforce this strategy, EU supports all possible activities and provides coordination of analytical groups in Brussels, think tanks, advocacy groups and some Member States, in particular Germany, the UK, France and Poland. For example, some EU partners are advocacy groups (WWF European Policy Office, Climate Action Network Europe, GermanWatch, Réseau Action Climat – France) and some of them are expert teams (Institut du Développement Durable et des Relations Internationales in Paris, the Centre for Clean Air Policy, Sandbag) [7].

Support of these cooperations plays a major role in the EU strategy of environmental political implementation, but at the same time, the EU seeks to link activities within different countries and virtual campaigns to ensure that the activities of different groups, that are operating separately, feed off one another.

Despite the late awareness of issues of the global problem, mankind began to work towards improving the natural situation. The EU, as the formation that united 28 of the most developed countries of Europe, launched its strategy by adopting the first and second ECCP phases, upgrading policy instruments to achieve better results in combating and adapting to climate change. However, practice shows that it was not sufficient for the European society and it still faces new challenges which need to be considered.

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Павлюк Олеся. Політичні інструменти та їх вплив на Європейську програму зі зміни клімату. Завдання наукової статті – визначення та аналіз впливу політичних інструментів ЄС на реалізацію Європейської програми зі зміни клімату. Питання досліджуване з погляду політичного реалізму, на підставі наукового підходу функціоналізму та інституціоналізму. Мета дослідження полягає в аналізі впроваджених політичних інструментів ЄС на можливу якісну зміну ситуації навколишнього середовища. Глобальна зміна клімату – одна з головних проблем сьогодення, що стоїть перед людством. Європейський Союз як найбільш перспективне об'єднання 28 Європейських країн у 2000 році створив комплексний пакет політичних заходів, спрямованих скорочення емісії парникового газу – Європейська програма зі зміни клімату I і II. Завдяки їх потужній політичній складовій ЄС удалося успішно поєднати загальну відповідальність та співпрацю Європейської комісії, національних експертів, промислових підприємств і неурядових організацій. Усвідомлення глобальності проблеми зміни клімату, призвело до запровадження політичних інструментів для покращення стану навколишнього середовища. І незважаючи на те, що почали з'являтися прогалини в стратегії їх реалізації, ЄС зробила далекий крок уперед на шляху стабілізації ситуації навколишнього середовища та адаптації до змін клімату. Тому практичне значення дослідницької роботи полягає в перейнятті й адаптивному перенесенні політичних інструментів із загальноєвропейського рівня на регіональний рівень кожної країни зокрема.

Ключові слова: зміна клімату, КПК, ЕССР II, політичні інструменти, CO₂, виклики, Європейський Союз, ЄС.

Павлюк Аlesia. Политические инструменты и их влияние на европейскую программу по изменению климата. Задачей научной статьи является определение и анализ влияния политических инструментов ЕС на реализацию Европейской программы по изменению климата. Вопрос исследовался с точки зрения политического реализма, на основании научного подхода функционализма и институционализма. Цель исследования состоит в анализе внедренных политических инструментов ЕС на возможное качественное изменение ситуации окружающей среды. Глобальное изменение климата – одна из главных проблем современности, стоящих перед человечеством. Европейский Союз как наиболее перспективное объединение 28 европейских стран в 2000 году создал комплексный пакет политических мер, направленных на сокращение эмиссии парникового газа – Европейская программа по изменению климата I и II. Благодаря их мощной политической составляющей ЕС удалось успешно совместить общую ответственность и сотрудничество Европейской комиссии, национальных экспертов, промышленных предприятий и неправительственных организаций. Осознание глобальности проблемы изменения климата привело к введению политических инструментов для улучшения состояния окружающей среды. И несмотря на то, что начали появляться пробелы в стратегии их реализации, ЕС сделал шаг вперед на пути стабилизации ситуации окружающей среды и адаптации к изменениям климата. Поэтому практическое значение исследовательской работы заключается в перенятии и адаптивном переносе политических инструментов из общеевропейского уровня на региональный уровень каждой страны в частности.

Ключевые слова: изменение климата, КПК, ЕССР II, политические инструменты, CO₂, вызовы, Европейский союз, ЕС.

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Новітні технології як детермінанти розвитку європейської політичної свідомості

Хоча збільшення обсягу інформації автоматично не робить суспільство більш поінформованим, збільшення цифрових засобів комунікації посилює можливості для отримання та відбору інформації, якої потребує людина і яка відповідає її інтересам і потребам. Новітні канали доставки інформації про європейські справи стають активним інструментом формування європейської політичної свідомості. На основі аналізу використання європейцями наявних джерел інформації для отримання й сприйняття інформації щодо європейських справ виявлено низку детермінант поінформованості європейців про ЄС та формування