



REPÚBLICA DEL ECUADOR

**NET AVOIDED EMISSIONS**

**Submission to the Ad Hoc Working Group on Long-Term Cooperative Action under the United Nations Framework Convention on Climate Change (AWG-LCA) to be considered as an input for a draft decision, or decisions, to the Conference of the Parties for consideration at its seventeenth session**

**Views in connection with paragraph 81 of the *Draft decision -/CP.16*  
*Outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action under the Convention on***

**"Various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions, bearing in mind different circumstances of developed and developing countries"**

**February 21, 2011**

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# 1. INTRODUCTION

## 1.1 Background

The Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) at its sixteenth session (COP 16) requested the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention to present proposals of the mechanisms that would allow the improvement of cost-effectiveness, and promote mitigation actions with the aim of recommending a draft decision to be considered at COP 17. Such proposals were to be submitted to the Secretariat of the Convention until February 21st, 2011.

The mechanisms to be developed should take into account the following:

- (1) Ensuring voluntary participation of Parties, supported by the promotion of fair and equitable access for all Parties;
- (2) Complementing other means of support for nationally appropriate mitigation actions by developing country Parties;
- (3) Stimulating mitigation across broad segments of the economy;
- (4) Safeguarding environmental integrity;
- (5) Ensuring a net decrease and/or avoidance of global greenhouse gas emissions;
- (6) Assisting developed country Parties to meet part of their mitigation targets, while ensuring that the use of such mechanism or mechanisms is supplemental to domestic mitigation efforts;
- (7) Ensuring good governance and robust market functioning and regulation.

The proposed mechanisms should demonstrate that their implementation are built on the basis of the existing mechanisms, including those established under the Kyoto Protocol.

The results of studies undertaken by the Intergovernmental Panel on Climate Change (IPCC) provide evidence of the climate change phenomenon. There is a continuous increase in the concentration of greenhouse gases in the atmosphere caused by anthropogenic activities which have global impacts.

In response to this global concern, the UNFCCC was established, with the ultimate goal of stabilizing the greenhouse gases (GHG) concentrations in the atmosphere at a level that prevents dangerous anthropogenic interference in the climate system.

Annex I countries, signatories of the Kyoto Protocol under the UNFCCC, have the responsibility to achieve their GHG emission reduction targets during the first commitment period, 2008-2012. In order to facilitate the achievement of these goals, three flexibility mechanisms were created to complement domestic mitigation actions that they should undertake to reduce their emissions.

During the COP 16 in December of 2010, the President of the Republic of Ecuador, Excellency Rafael Correa Delgado, introduced the concept of Net Avoided Emissions (NAE), with the objective of positioning an innovative and viable approach to contribute to real climate change mitigation.

In this context, Ecuador proposes the creation of a new alternative market mechanism, NAE. The NAE mechanism is presented as an alternative mechanism that encompasses the current mitigation efforts, and aims at improving the cost-effectiveness of the implementation of activities that contribute to mitigation actions under the UNFCCC and the Kyoto Protocol.

The NAE mechanism is consistent with the principle of common but differentiated responsibilities, and according to their respective capabilities. In addition, this mechanism can facilitate the achievement of the various objectives under other conventions such as the Biodiversity Convention, the Convention to Combat Desertification, among others.

NAE are the emissions that can be emitted within the economy of each country, but are avoided. The avoided emissions allow to generate a net positive balance of reduced emissions, at the national and global levels, that must be compensated. The concept encompasses the “compensations” of the flexible mechanisms under the Kyoto Protocol, as well as those planned for the REDD+ mechanism. Because NAE involves a trans-sectoral approach, it is not restricted to a specific sector and considers broad economic trans-sectoral activities that involve the exploitation, use and development of renewable and non-renewable resources. Indeed, NAE is a global concept that significantly broadens the possibilities of compensation from mitigation services.

The economic value associated to the provision of services provided by NAE is consistent with an environmental and economic logic. The main idea of NAE is to allow that the activities that have a positive social potential can be promoted and incentivized. Regarding the environmental aspects, NAE prevents the destruction, degradation and/or contamination of the environment. Regarding the economic logic, NAE, just like all other incentives that help generating or maintaining environmental goods, is based on the need for compensating the generation of value, and not only that which proceeds from goods, to achieve the maximization of social wellbeing and sustainable development. Under this conception, environmental goods are public goods with open access and consequently do not have explicit market price.

## **1.2 Purpose of the Document**

This proposal covers the following topics:

- Background
- Central Concept
- General purpose of the NAE mechanism
- Specific purposes of the NAE mechanism
- General views of the proposal
- Design of the mechanism
- Implementation method
- Complementarity with other mechanisms
- Conclusions

## **1.3 Core concept: Net Avoided Emissions**

In the context of international negotiations on climate change, under the Bali Action Plan coherent with the -/CP.16 Decision from the Cancun Agreements, Ecuador proposes the establishment of a new market mechanism for mitigation called “**Net Avoided Emissions**” (NAE).

This mechanism is a voluntary market scheme<sup>1</sup> which follows a programmatic and trans-sectoral approach. NAE makes reference to the GHG emissions that can be emitted, according to the current economic capacity of a developing country, but are not. In other words, NAE gives the possibility to generate an economic value associated with the service of avoiding emissions, and is equivalent to

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<sup>1</sup> NAE mechanism could also be used on a non-market basis..

the total tons of carbon emissions, which are not emitted, and that are traded in the current carbon market, or in other markets created with such purpose.

This mechanism promotes the fair and equitable access to all developing Parties, stimulates the implementation of mitigation activities in broad sectors of the economy, and embodies the overarching mechanism for domestic mitigation efforts of developing countries.

Additionally, the NAE mechanism has a social and environmental value in developing countries since, by avoiding emissions, it promotes the wellbeing of human settlements, the preservation of their traditions and cultures, and lifestyles, among other elements of the environmental, social and cultural heritage. In environmental terms, the mechanism NAE is related to the preservation of ecosystems, the sustainable management of natural resources, the protection of biodiversity, as well as the prevention of nature's destruction and degradation of environmental quality.

#### **1.4 General objective of the proposed mechanism**

The general objective of the NAE mechanism is to increase mitigation possibilities in developing countries. This is to be achieved through the provision of incentives that guarantee the implementation of activities that contribute not only to avoid emissions, but also to the real net reduction of emissions. As a consequence, NAE is intended to assist with the achievement of global emission reduction goals in order to stabilize the climate system.

#### **1.5 Specific objectives of the proposed mechanism**

- To improve the cost-effectiveness of mitigation activities under the Convention.
- To make available an alternative mechanism that complements the flexible mechanisms of the Kyoto Protocol, from a perspective of action under the new path for long term cooperation.

## **2 MECHANISM**

### **2.1 Design**

#### **2.1.1 Compensation method and its economic value**

The compensation mechanism shall be channeled through the generation of a new asset value. The economic value of this asset will be equivalent to the total value of the carbon dioxide (CO<sub>2</sub>) tons that are not emitted and are traded in the actual carbon market, or in other markets created for this purpose,. The tons of CO<sub>2</sub> that are not emitted will be expressed correspondingly in "tons of CO<sub>2</sub> equivalent". The resulting asset values will be traded and will have property rights defined by buyers and sellers.

In terms of economic logic, NAE, like all the incentives for generating or maintaining goods and environmental services, is based on the necessity of making viable an economic compensation that encourages the provision of values that are socially beneficial. This approach seeks to define institutional arrangements that would allow maximizing social wellbeing and sustainable development.

The value to be compensated in a developing country that implements NAE, will become effective through the economic value of a unit called "NAE", which is justified by the avoidance of economic activities that generate GHG emissions, or for actions that lead to reduce emissions in the economic activities that generate emissions.

NAE units can be traded directly between sellers and buyers through the sale and purchase of agreements that are negotiated in:

- Binding agreements between the Parties (for example through fiduciary funds, or trusts, among others);
- The carbon market under the Kyoto Protocol;
- Other new market mechanisms to be created.

The buyers of NAE units will be the developed countries and those countries that have voluntarily announced their autonomous mitigation targets, in numbers, to the UNFCCC to reduce their emissions, or their GHG growth trajectories. The NAE mechanism will contribute to the achievement of their objectives and emissions reductions targets under the principle of common but differentiated responsibilities, and respective capabilities. Consequently, the countries that can offer the NAE mechanism are developing countries that: (i) have marginal emissions; (ii) seek a transformation of their economies; (iii) have rich biodiversity and ancestral cultures; and (iv) can devote the investment of the resources generated by NAE in climate change mitigation and adaptations actions.

### **2.1.2 International considerations: sustainability and synergies (criteria among the different Conventions)**

The NAE mechanism facilitates the fulfillment of other objectives of others conventions that have synergies with the UNFCCC and its objectives. Mainly, the rules of the NAE mechanism involve clear instructions to the developing Parties, to satisfy the necessities on the protection and conservation of biodiversity and endangered species, including the rights and inherent civil society processes, communities, indigenous peoples and nationalities, such as their knowledge, culture and development expectations.

The identified Conventions that offer synergies with the NAE mechanism and other international agreements are as follows:

- Convention on Biological Diversity (CBD);
- Contribution to the objectives of the Study on *The Economics of Ecosystems and Biodiversity*;
- Convention to Combat Desertification (The Global Mechanism);
- United Nations Universal Declaration of Human Rights;
- United Nations Declaration on the Rights of Indigenous Peoples;
- Ramsar Convention on Wetlands.

In order to ensure the sustainability of the NAE proposal, there is a need to:

- Guarantee the establishment of a market scheme under the Convention (UNFCCC) that ensures the functioning of the mechanism and that includes binding obligations under the Convention.
- Guarantees competitiveness in the carbon markets.
- Demonstrates associated social and environmental benefits.
- Incorporates robust mechanisms for Measurement, Reporting, and Verification (MRV).

The sustainability of the new NAE mechanism is linked to the achievement of a long term cooperation agreement under the UNFCCC that is not applied in a voluntary basis. Moreover, the sustainability is also related to the emissions reductions commitments by developed countries, and

those countries that have voluntarily declared to the UNFCCC their autonomous mitigation targets, in numbers, to reduce their emissions, or the trajectory of their GHG growth, and also the legal provisions that guarantee the commitments of all the Parties to achieve the ultimate objective of the Convention.

### **2.1.3 National consideration**

The mechanism NAE is not a restricted to a specific activity or a particular economic sector, but rather it considers economic activities that involve the exploitation use and development of renewable and nonrenewable resources broadly, as well as entails compensation for omission and for an action in any sector of the economy in which emissions can be reduced. For example, in the renewable sector, it is not limited to deforestation and degradation of forests, but could consider changes in land use and land cover, among others. As NAE is considered a flexible mechanism that can be adapted to different sectors of the economy, it can be seen as an inclusive proposal for the involvement of all Parties, considering their respective capacities and national circumstances.

The definition of the sectors that will be considered under this mechanism will be done at the national level, according to the priorities and the economic sectors that are strategic of each country.

### **2.1.4 Governance and institutional arrangements**

The functioning and governance of this mechanism will include the establishment of an Executive Committee under the Convention, that will report to the COP.

At the initial stage of the NAE mechanism, a Transitory Committee will be established with equal representation among developed and developing countries, which will propose the rules and modalities of this new mechanism to be adopted by the COP.

At the international level, the mechanism will seek to insert itself into the governance models already established under the UNFCCC framework in order to implement specific measures (such as the CDM). Moreover, an entity that will certify the compliance of the guidelines and modalities will be established for NAE, and should depend directly from the Executive Committee.

Additionally, the Convention will keep a record of the countries and the actions that will be carried out under the NAE mechanism framework. In the same way, at the national level, an institution should be established to act as the "national designated authority," which will endorse and coordinate the implementation of NAE (in a similar fashion as the implementation of current existing mechanisms).

## **2.2 Method of Implementation**

### **2.2.1 Definition of the baseline and sectoral boundaries**

#### **1. Baseline**

The Transitory Committee will develop the requirements and parameters applicable to the baseline calculation, which shall be mandatorily complied by developing countries wishing to participate in the NAE mechanism.

Each country, according to the type of economic activity to be undertaken, will develop a specific

methodology according to the specific characteristics and conditions that need to be considered for the calculation of avoided emissions from specific mitigation actions for an economic activity. The calculation will be validated through mechanisms defined by the Executive Committee and adopted by the COP.

## 2. Emissions Scenarios

To determine the tons of carbon equivalent that will not be emitted into the atmosphere under the NAE mechanism, two emission scenarios should be done:

- ***Scenario of realized emissions (Business as Usual)***, which are the emissions generated through the implementation of the economic activity in the absence of the NAE mechanism.
- ***Scenario of avoided emissions***, which are the emissions that would not be emitted, or would be avoided, through the economic activity that is not carried out due to the incentives pose by the NAE mechanism

## 3. Cost Analysis

In order to understand the forgone value of the activities that will not be undertaken in the national economy, and to relate them to the avoided emissions, the economic value of this activity will be determined based on the net present value of cash flows of the activity. This exercise should include a cost analysis covering the following parameters:

- Opportunity costs
- Financial costs
- Transaction costs
- Net present value of the non-developed economic activity.
- Income from NAE units

### **2.2.2 Measurement, reporting and verification**

The measurement, reporting and verification activities should be defined according to sectors and eligible activities chosen for the implementation of the NAE mechanism at the national level.

Each Party shall develop their methodologies for measurement, reporting and verification in accordance with the guidelines established by the Executive Committee of the mechanism (when it is appropriate, the most recent guidelines from the IPCC will be used).

The measurement, reporting and verification system will respond to the proposed scenarios and the corresponding baselines.

### **2.2.3 Environmental Integrity: leakage, additionality, and permanence**

Developing country Parties wishing to participate in the NAE mechanism, under the supervision and legal binding instruments of the UNFCCC and its panels of experts, can establish warranties and clear terms, that are permanent in nature, of the activities implemented under the NAE mechanism and its benefits, as well as the methodologies for determining the economic threshold of the activities that are feasible and that can be associated with the compensation of an asset value of a NAE unit.



The permanence of the mechanism will depend on the economic feasibility to compensate a country for the non-undertaken, or unrealized, activity according to the scheme previously described, and also for the period in which the activity would last until the economic benefits generated under the "avoided emissions scenario" are maximized.

If the mechanism includes a sectoral approach and with net emissions balances at the national and global levels, then it will be possible to consider leakages.

In terms of additionality, the mechanism offers an added value because in its absence, there would be associated emissions due to the economic activities of developing countries. Moreover, the mechanism complements the services of sequestration and reduction of GHG emissions under the UNFCCC, and therefore, it is additional to the net global emissions that can be reduced.

### **3 COMPLEMENTARITY WITH OTHER MECHANISMS**

The flexibility mechanisms of the Kyoto Protocol do not decrease net emissions released into the atmosphere. They only reduce the accrual rate and growth rate of GHG released into the atmosphere. Therefore, the concentration of GHG is not reduced.

NAE proposes a more ambitious objective, as it suggests that the emissions that can be realized in an economy, due to an inherent right are not emitted, or the emissions that existing in the economy of a country are reduced. The rules of the NAE mechanism involve, as an added value that distinguishes it from other mechanisms, the protection and conservation of biodiversity and the processes inherent to the rights of indigenous peoples and their knowledge, culture and development prospects, and other national heritage resources that the Parties implement and are valued in an economic, environmental, social, and cultural terms.

Moreover, the NAE mechanism points out that the resources to be obtained through the compensation to the developing countries that implement it, and will be dedicated to finance climate change mitigation and adaptation actions.

Likewise, the mechanism contributes to the transition that, Ecuador, other developing countries and the world needs to implement a new model of economic development that promotes non-use values, and provides financial compensations for mitigating climate change. With these considerations, the NAE mechanism not only guarantees the existence of current mechanisms, facilitating the fulfillment of other targets under other Conventions that are related to the UNFCCC and its objectives, but also, it proposes a new mechanism that also considers all the Kyoto Protocol mechanisms, particularly those that involve developing countries.

The NAE mechanism complements current emission schemes, facilitates the achievement of objectives under other conventions that have interdependence with the UNFCCC and its objectives.

### **4 CONCLUSIONS**

The NAE mechanism is a cost-effective alternative needed to stabilize climate change, by which the Parties with marginal GHG emissions, or that have low growth patterns of GHG emissions, could maximize such potential with financial compensation from developed countries which have growth patterns with high GHG emission levels.

The NAE mechanism encompasses the flexible mechanisms of Kyoto Protocol from the view of

action under the new route for long-term cooperation, and is not restricted to a specific sector. It rather considers all economic activities that a developing country is able to carry out when deciding whether to implement the mechanism. The implementation of NAE shall ensure a financial compensation for an activity that is not carried out that contributes to the net reduction of emissions and, as a consequence, to comply with the overall goal of reducing GHG emissions to stabilize the climate system.

Assuming that the "scenario of realized emissions" is maintained, then the goal of stabilizing the temperature would be unattainable. For this reason, it is remarkable to highlight the necessity and the sufficiency of the proposed mechanism to both reduce emissions associated with activities that are conducted, as well as the enabling of a smooth transition of economies that want to ensure sustainable development based on patterns of low GHG emissions.

Once this mechanism takes place, it will enable a revolutionary transformation of the economy of many countries, such as mega-diverse countries, which may establish an economy based on bio-knowledge and environmental services oriented economy, considering the principle of shared responsibilities in the management of global public goods, such as the atmosphere.

#### **4.1 Additional benefits of the Mechanism**

The effective and balanced implementation of the objective of the NAE mechanism leads to the achievement of benefits, some of them include to:

- Prevent environmental degradation resulting from the use of renewable and non-renewable resources that generate GHG emissions.
- Contribute in parallel to the reduction of CO<sub>2</sub> emissions caused by various economic activities.
- Contribute to the protection of the natural heritage, biodiversity and the ecosystem functions.
- Facilitate the maintenance of natural cycles, especially in relation to carbon.
- Protect and restore habitats, particularly in mega-diverse countries with basic needs that have not yet been met.
- Preserve ecosystems for human habitats.
- Improve the standards of living of the population so that it receives direct benefits, which at the same time can lead to the conservation of renewable and non-renewable natural resources.
- Encourage inter-generational equity to guarantee a safe environment for present and future generations, and an equitable access to global public goods such as the atmospheric space.