



SOLVING CLIMATE CHANGE ISSUES AT COMMUNITY LEVEL

RESEARCH

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INTRODUCTION

In the field of climate change the commitments (contributions) of developing countries (including Armenia) envisaged by the Paris Agreement will start in 2020. Most of them, first of all, will take place in the communities. The state is obliged to create conditions for climate change mitigation and promotion of adaptation measures, including the provision of internal and external financial resources. According to the Comprehensive and Enhanced Partnership Agreement (hereinafter CEPA), which also builds upon the Paris Agreement on Climate Change Cooperation, the European Union, as “Regional Economic Integration Organization” included in Annex 2 to the UN Framework Convention on Climate Change, bears a number of commitments, including a financial one to support developing countries in implementing climate change measures. Armenia's commitments under the Intended Nationally Determined Contributions (INDC) include a financial mechanism that is civil in nature and can serve as a basis for cooperation with the European Union on a civil level. Firstly, it is the introduction of the “ecosystem approach” in socio-economic development programs and projects, in which the financial instrument of ecosystem services acts as a mechanism for the implementation of this approach. This tool is used in a number of EU countries and can be implemented in Armenia.

A situation has emerged in our country where the economic and social development of communities depends almost entirely on state subsidies and subventions. This fact, certainly, does not contribute to the development of self-governance of the society and self-sufficiency. Moreover, such conditions hinder the implementation of public initiatives, in particular investment projects.

It is necessary to change the situation by involving the residents of communities and settlements in the identification and solution of socio-economic development problems, introducing an innovative mechanism of self-governance.

Several projects and programs aimed at addressing the problem of climate change in Armenia, as well as the government policy, the involvement and participation of the civilian population have been analysed within this project. The basic issues have been identified, the solution of which will create necessary grounds for the motivated participation of the only beneficiary - the country's population. The study provides recommendations for creating institutional foundations in Armenia's rural communities through the use of Armenia's “Intended Nationally Determined Contributions” (INDC) financial instruments. It will also contribute to the strengthening and development of the capacities aimed at the implementation of the Paris Agreement with the assistance provided by CEPA, which will simultaneously ensure the approximation of the EU instruments.

The target groups of the project are the rural and urban residents of Armenia, who are the only beneficiaries.

GENERAL PROVISIONS

The UN Framework Convention on Climate Change (hereinafter referred to as the UNFCCC) is the main international multilateral treaty that regulates climate change issues internationally. It was signed in 1992 at the World Summit in Rio de Janeiro. As the negotiations on the drafting of the convention had taken place in the period when the USSR still existed, Armenia had not participated in the development of the convention and, in fact, the participation started from the moment the RA President signed it at the summit in Rio de Janeiro in 1992.

Some initiatives under the UNFCCC since 1992 that are useful in terms of awareness and experience:

After signing the Convention, the Supreme Council of the Republic of Armenia ratified it in May 1993 (the Convention had not yet entered into force). In 1994, the Convention entered into force and the so-called “Berlin Mandate” was adopted at the 1st Conference of the Parties (Berlin), and during 2 years of negotiations the Kyoto Protocol was developed and in 1997 adopted at the 3rd UNFCCC Conference in Kyoto, Japan.

During this period, when Armenia had just gained sovereignty, there emerged problems that were typical to other states created by the collapse of the USSR. From one side, it was the inexperience, from the other side, it was the transition to a new, still incomprehensible state after socialism, the experience of which didn’t exist in the world.

Some of these states in the UNFCCC (former European Socialist countries, the three Baltic states, Russia, Ukraine and Belarus) were granted the status of “country with transitional economy”, which were also included in the list of developed countries in Annex 1 to the Convention. The remaining countries, which were considered “developing”, were mainly grouped in the so-called “77 and China” group (around 130 countries) and acted as countries “not included in Annex 1”.

Thus, the status of the other nine republics of the former Soviet Union and of Albania, “acquired” some uncertainty, which was also due to the fact that these new countries were often perceived as former socialist ones, that is, “countries with transitional economies”. Some of these states (Kazakhstan, Georgia) did not want (tolerate) to be called “developing”. The problem was that the financial mechanism of the Convention (Global Environment Facility-GEF) could be used by the developing countries “not included in Annex 1”, and at intergovernmental negotiations it was often hinted that the 10 countries mentioned above did not qualify for that status.

In order to resolve the issue, the delegations of three of these countries (including Armenia) initiated a process of “legal clarifications” on the status of these 10 countries. This took 2 years, and it was decided that these 10 countries can benefit from all the financial tools intended for the developing countries. During the “legal clarifications” it turned out surprisingly that the terms “developed” or “developing country”, which were widely used in the UNFCCC, did not have a

clear legal definition and origin in other international documents. Taking into account the results of the legal clarifications, the delegations of the 10 countries set up an informal “Central Asia, Caucasus, Albania, Moldova” (CACAM) negotiation team to protect the common interests of all 10 countries during the negotiations.

The similarity of the interests was largely conditioned by the fact that the greenhouse gas emissions had fallen sharply in all these countries due to the deep economic downturn, which meant that the economic recovery and development could not take place without increased emissions. It had also become typical that the ownership was changing due to renouncing socialism. The nationwide (socialist) ownership of land and industrial enterprises was being privatized, which, through a procedure accompanied by illegal legislation, was falling into the hands of a limited number of people who, in cooperation with statesmen, were forming the oligarchic system.

Establishment of a negotiating faction for “*Landlocked mountainous countries*”

Article 4 (point 8) of the UNFCCC sets out the nine criteria used to describe the high vulnerability of a country due to climate change. The Convention provides a special treatment for the needs of such countries, in particular in the areas of finance, insurance and technology. 3 of the mentioned criteria fully correspond to the territory of Armenia (dry climate, vulnerable mountainous ecosystems, landlocked). Based on this provision, at the initiative of Armenia, a “Landlocked Mountainous Countries” negotiating group was established within the negotiating environment of the Convention, which was called to contribute to the presentation and satisfaction of the needs of such countries.

On June 23, 2013, Armenia joined the Convention on “Transit Trade of Landlocked States”. Armenia's accession to the Convention has a special economic and political significance, as it provides an opportunity to protect the country's interests under the free (costless) transit through the territory of third countries, which facilitates the transfer of “climate” technologies from cooperating countries.

Unfortunately, the Armenian government, which is under transport blockade, is not taking advantage of this favorable opportunity yet in order to introduce “best available technologies” aimed at mitigating and adapting to climate change.

Kyoto Protocol (1997)

The idea of the “Third Way” and its substantiation (in contrast to the “Second Way” of Kazakhstan)

As it is known, the Kyoto Protocol sets quantitative (numerical) obligations to reduce greenhouse gas emissions only for developed countries. The list of these countries is available in “Annex B” of the Kyoto Protocol (Armenia, of course, is not included in that list).

The Kyoto Protocol establishes so-called “flexibility mechanisms” to assist developed countries in meeting these obligations. There are three of such mechanisms: 1. “Joint Implementation”, 2. “Trade in Emissions Quotas” and 3. “Clean Development Mechanism” (CDM).

Only the developed countries included in “Appendix B” can participate in the first two mechanisms, a developing country can participate in the CDM with a developed country. The mechanism of “Trade in Emissions Quotas” provides an interesting opportunity for countries with economies in transition.

As they are allowed to increase their greenhouse gas emissions during economic recovery, until that growth occurs, these countries can sell their quotas in the carbon market. This, as an innovative market environment, is being shaped by developed countries in order to sell their emission quotas (shares) to each other (for example, Ukraine sold the equivalent of 30 million tons of carbon dioxide quota to Japan for \$ 370 million). Faced with such temptation, Kazakhstan announced that it was changing its status of a developing country to a developed one (such an opportunity is envisaged by the Kyoto Protocol) and took steps in that direction, which unofficially got called the “Second Way”.

Several countries of the CACAM group, including Armenia, also tried to participate in that market, but with some caution, on the following principle: the country assumes an internationally agreed quantitative commitment to reduce greenhouse gas emissions, but does not change its status of a developing country, it uses the proceeds exclusively through the “green investment scheme”. In addition, as a developing country, it can also participate in CDM as a host country.

This initiative received the unofficial name “Third Way” and became a topic of international discussion. The discussions lasted for almost 3 years.

However, due to the disagreement of the “77 and China” faction, the “Third Way” was not adopted. The main reason for this was that if the free quotas of those countries appeared in the carbon market, the price of greenhouse gas reductions would fall, harming the developing countries implementing projects through CDM. Thus, Armenia continued its participation only with the CDM of the Kyoto Protocol.

If the described “third way” scheme had been successful, it would have been possible to set up a circulating investment fund and implement at least \$ 100-150 million investment projects under the “green investment scheme” set by the Convention.

Kazakhstan's “Second Way” was also unsuccessful, as it required an amendment to Annex B of the Kyoto Protocol. The amendment had to be ratified by about 140 countries, which was practically impossible. Thus, Kazakhstan did not get what it wanted and at the same time was deprived of the opportunity to participate in CDM.

Belarus was not fortunate either, but in this case the reason was that the country was late in ratifying the UNFCCC and was not included in the "Annex B" list of countries with quantitative obligations when the Kyoto Protocol was adopted. In fact, due to the delay, Belarus failed to participate in the Kyoto Protocol and failed to sell its “surplus” quotas (“hot air”) in the carbon market, following the example of Ukraine, and did not manage to introduce “best available technologies” to the country through a “joint implementation” mechanism.

The Paris Agreement provides ample opportunities for international cooperation, in particular under Article 6, and it is extremely important to have a good understanding of the procedures and opportunities for cooperation, to be vigilant, innovative and proactive. These initiatives should be generated in the non-state, civic levels, which are the only beneficiaries. It is not accidental that the Paris Agreement envisages the creation and expansion of a “platform of non-state actors”. Gradual diversion of international climate funding to these actors (e.g. the Covenant of Mayors of the European Union) is already noticeable. Most of the adaptation and mitigation measures to address the climate change need to be implemented in these entities, in local communities (settlements), so the development and strengthening of their capacities, including the financial ones, become imperative. It is clear from this that the role of the Eastern Partnership Civil Society Forum is becoming crucial. And this does not apply only to the scope of activities of the Working Group 3, but to all the WGs. Moreover, it is expedient to involve the business sector and trade unions and professional groups (unions) in that process. It is advisable to use the opportunities provided by CEPA in this process.

It is noted in CEPA that Armenia has committed itself to aligning its positions with those of the EU within the framework of the Climate Change Convention and the Paris Agreement. In particular, according to CEPA, Armenia should study the mechanisms of “emissions trading” and “joint implementation” operating in the EU under the Kyoto Protocol so that it can cooperate with EU countries under their improved versions within the framework of the Paris Agreement. It is possible to increase the country's capacity, especially in local civil and business areas by using the provisions of the “capacity building and strengthening” cooperation with the EU within CEPA. In our opinion, it is necessary to form a relevant institutional framework of “public-private cooperation”. Its expediency is emphasized in the INDC of Armenia. We believe that for this purpose it is necessary to rely on the three parties that are members of the EaP CSF national

platforms: NGOs, chambers of commerce and business associations, as well as trade unions and the professional community (unions).

A brief analysis of the implementation of some of the Kyoto Protocol CDM projects

Such an analysis is important, given that in the actions under the Paris Agreement, flexibility mechanisms similar (however, improved) to the ones of the Kyoto Protocol will be applied. Their introduction will strengthen the professional capacity in communities (villages and small towns), including the preparation and financing of relevant projects.

For the purpose of analysis, the below 3 projects, initiated under the Clean Development Mechanism of the Kyoto Protocol, have been studied.

a) The “Nubarashen Landfill Gas Capture and Power Generation Project in Yerevan” CDM project is underway, but will be completed in 2021. The Municipality of Yerevan and the RA Ministry of Economy did not find it expedient to implement the program in full. The municipality of Yerevan allocated only 7 hectares of land for the project, provided the biogas is not used to generate electricity, but is simply burnt in a torch. There was an attempt to create an innovative financial mechanism through the project. However, the municipality of Yerevan created obstacles also in this issue, and this initiative was not implemented either.

b) “The Lusakert Biogas Plant” was built under a CDM project. It functioned, generated electricity and heat, but no certification was carried out for reduction of GHG emissions as it operated with deviations from the approved CDM project monitoring plan. Later, the production volume dropped noticeably due to shortage of raw poultry manure, and the plant ceased its operation. However, the experience of the CDM project showed that this technology has the potential to be the “best available technology” if the “accessibility” is ensured by the economic incentives set by environmental requirements.

Based on the experience of the Lusakert Biogas Plant CDM project, the establishment of such plants in a cluster scheme in the rural communities of Armenia should be considered under the INDC financial scheme of Armenia.

c) 3 CDM small hydropower projects approved by the International CDM Executive Body were not further processed. By using the CDM, the initiators tried to get additional benefits through the certificates generated in return to the reduced greenhouse gas emissions. But they did not succeed. The SHPP owners abandoned the CDM and continued to operate them normally, causing severe damage to the aquatic and offshore ecosystems.

A number of other CDM projects did not proceed further either.

We believe that some of these unfulfilled projects can be implemented under the scheme of the INDC financial mechanism of Armenia, namely the Climate Civil Revolving Investment Fund.

1-2 visits were made to the mentioned villages within the framework of this program. During these visits the conviction that the scheme of the civil circulating investment mechanism is viable and has a perspective was strengthened.

Paris Agreement

Ahead of the Paris Agreement

Given the purpose of this paper, there is no need to comment separately on the Paris Agreement, so let us briefly review the commitments undertaken by Armenia before the adoption of the Paris Agreement.

By interstate agreement, the states presented their commitments, called the “Intended Nationally Determined Contributions (INDCs)” prior to the 21st Conference of the UNFCCC countries in Paris.

The Republic of Armenia also presented the INDC of Armenia as RA official commitments, which had been approved by the Government decision N42, dated September 10, 2015 and submitted to the UNFCCC countries. This document includes mitigation commitment on not exceeding the total 633 million tons of CO₂ equivalent emissions for the period of 2015 to 2050 (35 years). This commitment is determined by the “top-down” approach, which is based on i) the stipulation to keep the global average temperature below 2 degrees, ii) equality of the people to benefit from climatic resources, iii) the right of future generations to use climatic resources. Armenia also commits to reach “net zero” emissions by 2050, when the emissions will not exceed the amount of absorption and accumulation by the Earth’s ecosystem, which, according to the IPCC is about 2 tons per capita per year. The implementation of the commitments under INDC (including mitigation and adaptation measures) is highly dependent on contribution from new technologies, strengthening of local capacities, introduction of transparent Measurement, Reporting and Verification (MRV) system and, most importantly, the establishment of sustainable financial mechanism for implementation of those programs.

Below we present the financial mechanism defined by the INDC of Armenia, which is envisaged for the implementation of climate change mitigation and adaptation projects in the country. An extract from the INDC on this financial mechanism is attached (Appendix).

The internal component of this mechanism will be based on the climate civil revolving investment fund, which, on permanent basis, is replenished by allocations from the environmental fees, ecosystem service fees, including payments for the use of climate resources (carbon taxing).

In order to finance the projects locally (villages and cities), by the June 19, 2017 decree N646-A of the RA Government, it was instructed to create civil revolving investment funds also at urban and rural levels.

Based on the above two decrees of the RA Government, “Khazer” Ecological and Cultural NGO has applied to the UNDP Armenian Office and, after receiving their approval and support, has been implementing the “Introduction of Intended Nationally Determined Contributions (INDCs) mechanism defined by the Republic of Armenia in medium and small urban and rural communities” project funded by the Global Environment Facility. Brief information about the project is available at the following websites: <http://www.sgp.am/en/Projects?id=79>; <https://khazer.org/en/hh-inds/>.

At present, with the support of the UNDP Armenia Office, an attempt is being made in a number of villages in Armenia to establish Civil Revolving Investment Funds and implement revolving investment projects with this toolkit.

The main goal of the project is to present the model of climate civil revolving investment funds with appropriate technological and organizational components as a stable, decentralized, rural-owned and self-managed financial mechanism. The presented program will contribute to the development of knowledge and skills of community self-governance. The program envisages selection of pilot rural settlements, communities or community associations that are ready to initiate and establish civil revolving investment funds.

A key component of the project is capacity building for the rural population to establish self-governing foundations, including tools for monitoring their activities.

In parallel with the presented program, proposals for improving the legislation will be developed in order to reduce investment risks and to widely introduce the scheme of Civil Revolving Investment Funds in other settlements of Armenia.

The most important precondition for the creation and operation of Civil Revolving Investment Funds is the perception of this innovative mechanism as an alternative approach to community self-governance for jointly organized activities. A guide has been developed to initiate the process of establishing the foundation, consultations and meetings are being held with the initiating groups, who will later become the founders of the foundation.

Currently, “Climate Civil Revolving Investment Funds” have been established in several communities. The project of increasing the energy saving of street lighting has been completed (Lchashen village). In this project, the foundation provides energy saving services to the village municipality by replacing conventional street lighting bulbs with LED luminaires. The municipality pays for this service to the foundation at the expense of the funds saved until the

full repayment of the foundation's investments. The returned funds will be invested in other projects proposed by the village beneficiaries.

The combined program for the introduction of a solar photovoltaic system and the restoration of degraded agricultural lands (Mets Parni village) is being agreed upon. The introduction of a solar photovoltaic plant in this project will reduce the cost of hay fuel briquettes produced by the foundation, and the savings will be directed to the restoration of the degraded agricultural lands. The combination of these two projects significantly increases the speed of return of investments, thus creating broad opportunities for further investment.

The projects initiated in both mentioned villages envisage full repayment of investments to the civil circulating investment fund belonging to the villagers in 3-5 years. Once these funds become available, they will be invested in future projects in these rural communities.

The transparency of the actions was mainly ensured through meetings organized via ZOOM. The initiators, presidents and directors of the community-based foundations, as well as (more often) interested representatives from the business sector (Chamber of Commerce and Industry) were invited to these events. Meetings were also held in a number of rural communities.

Under the Paris Agreement, the INDC of Armenia envisages a special action to ensure "transparency", which attaches particular importance to the creation of internal (national) system of "Measuring, Reporting and Verification" (MRV). An attempt was made to set up a monitoring group of schoolchildren within the framework of the energy saving project under the Lchashen Community Climate Civil Revolving Investment Fund established in the village of Lchashen.

The need for an MRV was presented and explained at a meeting of the board of trustees of the "Mets Parni Community" Climate Civil Revolving Investment Fund in the village of Mets Parni. In addition, it was noted that Mets Parni Foundation, which already has a high capacity to implement various climate change mitigation projects, can be an exemplary organization for implementing and demonstrating moderation.

The scheme of "Climate Civil Revolving Investment Fund" was also presented to the Working Group 3 of the EaP CSF Armenian National Platform.

Two most important obstacles

1) As a result of the process of "enlargement of communities", many rural communities were deprived not only of administrative levers of self-governance, but also of the right to community ownership. As a result, uncertainty arose about the establishment and operation of civil revolving investment funds in those communities;

2) The creation of the Pan-Armenian “Climate Civil Revolving Investment Fund” envisaged by the INDC of Armenia for 2018, was suspended by the RA new Government. This significantly hampered the introduction of the financial mechanism set by INDC in the Armenian communities.

Summary of proposals

- Taking into account that the RA Government has resumed the “enlargement of communities”, to organize an awareness-raising process for the establishment of civil revolving investment funds in the settlements.
- Establish inter-village clusters as 2nd level self-governing structures at the initiative of rural civil revolving investment funds.
- Continue lobbying for All-Armenian Climate Civil Revolving Investment Fund (capital) creation under INDC.
- Establish a Public-Private Partnership (PPP) platform using INDC technology and financial mechanisms involving community funds and regional commercial-industrial chambers.
- Initiate the EU assistance measures under CEPA to develop and strengthen capacity in rural areas under the UNFCCC and the Paris Agreement.
- Collaborate with the boards of trustees of relevant foundations and municipalities to support the formation of community foundations and operational capacity building;
- Establish a platform for monitoring and controlling the progress of investment projects and the return of investments. To create an e-portal for that purpose.
- Accompany the above-mentioned and other activities with informing through media, involvement of other organizations (including potential donors) and mobilization of resources.

The main problems and possible solutions

The practice of introducing the above-mentioned mechanism of self-organization has shown that the majority of the people is not ready to take the initiative and has no confidence in the innovative approach of self-organization to solve collective problems. Another issue is the lack of ability to shape the needs of the community and to turn these needs into investment project packages.

To address these issues, steps have been taken to unite and create an environment of cooperation between the civil society stakeholders - mainly the communities and the business community. As a scheme of cooperation, steps have been taken to organize a “public-private partnership”. Here, the self-organized community acts as the client in the form of Climate Civil Revolving

Investment Funds, which allocate their resources, and the business sector acts as a contractor, which meets the needs requested by the community through its services.

The most important guarantee for the widespread introduction of the described mechanism of self-organization of the society is the perception and support of the scheme by the general public.

However, the biggest obstacle that accompanied the whole project was the pandemic, during which a “state of emergency” was declared, which did not allow sufficient direct contact with the rural population and, of course, the war situation and the declared martial law.

CONCLUSION

This analysis was important in order to understand where the obstacles are in order to overcome them.

To that end, it was useful to refer to the realized, unrealized and failed projects initiated by the CDM of Kyoto Protocol. The analyses of these projects showed an obstacle, which is largely systemic and common for all. An attempt is being made to overcome this obstacle by creating an innovative institutional system and tool.

In other words, each CDM project has its own set of obstacles, yet the origin of all of them is due to a common systemic circumstance. The thing is that the real beneficiary of these projects, i.e. the civilian population, is not involved in the process. The private sector is only interested in the profitability of the project. They are almost not interested in the environmental, health or social impact. This is particularly true of small hydropower plants, the Lusakert Biogas Plant. The municipality of Yerevan is not interested in the ecologically preferable investment either, and is satisfied by simply removing the garbage “out of sight”, transporting and accumulating it in a landfill. The same goes for wastewater disposal. The real beneficiary, the population, is excluded and alienated from these processes. The public hearings and discussions are just a formality, which create the illusion of participation, as they have no practical implications.

What is interesting is that even the beneficiary residents do not seem to be interested in their engagement in the process. This relates to the initiatives of the private sector, as well as the initiatives and actions of the municipalities and village councils.

Analyses show that the local self-governance electoral system is not based on the real, practical interests of the voters. After the election, the residents are deprived of the opportunity to interfere in the process.

We see the fundamental solution to the problem in giving real investment power and leverage to the people, when the residents themselves manage the public funds, acting as the client, whereas the municipalities and village municipalities, as well as the private sector become the contractors. This will be the real “public-private partnership”. Such a cooperation scheme is envisaged by the

financial component of the INDC of Armenia and is being piloted in several villages in Armenia under the UNDP Small Grants Program. At the initiative of the residents of the villages, “Climate Civil Revolving Investment Funds” are being established, the beneficiaries of which are all the residents of the village with equal investment rights. At their suggestion, the highest governing body of the foundation is formed: the board of trustees and the administration. The ownership belongs to the foundation and is inalienable.

The European Union can play an important role in this, and we believe that the EaP CSF, with its national platforms, is the best platform for testing and implementing the provisions of Article 6 of the Paris Agreement. The states with all the UNFCCC statuses, members to UNFCCC and Paris Agreement are on that platform (“Annex 1”, “Non Annex 1”, “Annex 2”, “Transition Economy Annex 1”).

Armenia can become a test country, as CEPA, in fact, provides approaches that are in line with the provisions of Article 6 of the Paris Agreement (common but differentiated obligations between countries with different statuses).

Appendix

Excerpt from Armenia INDC (Protocol Decree N42 of the Government of the Republic of Armenia of September 10, 2015)

6.	Finance	<p>Develop an appropriate legislative and institutional framework for adequate financial assistance. For this purpose a targeted financial mechanism consisting of two components should be created to finance climate change mitigation and adaptation projects:</p> <ol style="list-style-type: none">1) The first – internal (domestic) climate revolving investment civil fund, to be replenished on permanent basis by allocations from environmental fees, ecosystem service fees, including “carbon taxing”.2) The second – external (international) financial mechanisms with resource provision on the principle of additionality, such as the Green Climate Fund, the Adaptation Fund, the Global Environmental Facility, bilateral and multilateral funds and other sources. <p>The emerging financial mechanism will:</p> <ol style="list-style-type: none">a. create realistic and operational grounds for the establishment and development of a reliable public-private partnership (PPP);b. ensure the right of future generations to “use climate resources”.
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