INTERNATIONAL FINANCIAL, TECHNOLOGICAL, TECHNICAL AND CAPACITY-BUILDING SUPPORT RECEIVED AND DOMESTIC FINANCIAL FLOWS FOR CLIMATE CHANGE RESPONSE ACTIONS IN THE REPUBLIC OF NORTH MACEDONIA IN THE PERIOD 2018 – 2019

- Draft Summary Report -

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This document is prepared within the project "Macedonia's Fourth National Communication and Third Biennial Update Report on Climate Change under the UNFCCC" implemented with financial and technical support from the Global Environmental Facility and the United Nations Development Programme.

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Abstract

Accurate assessment of climate finance is the most difficult problem facing all non-Annex I countries reporting to the UNFCCC. In this respect, the Republic of North Macedonia is no exception. Most non-Annex I countries do not present any information on climate finance in their biennial reports that are officially published despite the commitment to the Convention set out in FCCC / CP / 2002/7 / Add.2 and Dec.2 / CP. 17 Annex III. The Republic of North Macedonia is one of the few countries that has presented a climate finance assessment in BUR1 and BUR2, and in the third BUR it intends to present a climate finance assessment using the OECD DAC Rio Climate Marker methodology in the field of public climate finance.

The Republic of North Macedonia as a non-Annex I country of the Convention is obliged to report on international support for climate activities obtained from bilateral and multilateral sources. This requirement of the Convention is aimed at measuring the realization of the commitment of developed countries to allocate US $ 100 billion annually to underdeveloped non-Annex I countries, thereby achieving the principle of " Common but differentiated responsibilities and respective capabilities". According to the requirements of the convention, it is also necessary to report on the domestic resources that the country spends on climate activities.

The synthesized data on financial, technological, technical and capacity building support obtained from international sources show that in the period 2018 and 2019 there were a total of 38 climate related projects funded with international support. Support to the Republic of North Macedonia committed / received in the two-year period 2018 - 2019 is estimated at US $ 25.14 million. Of these, 21 are climate-specific projects and account for as much as US $ 15.6 million, which is 62% of the total. The remaining 17 projects totaling US $ 9.5 million or 38% are climate change relevant.

The Republic of North Macedonia also received non-monetary support in the form of technical support, technological support and capacity building support. There are 14 projects registered in this category.

At the national level, we were unable to provide adequate data for a precise assessment of own resources spent on climate change (our own climate finance) of the Government, line ministries, government agencies and the other government public sector.

In terms of national climate action resources, the assessment has been carried out at the level of the state capital - Skopje, which has shown a strong commitment in recent years to combating climate change. In the analyzed period 2018-2019, the City of Skopje implemented a total of 37 climate change projects. The total amount of own source funds invested in these projects was US $ 8,928,109. By applying the OECD Rio methodology, the projects were evaluated in terms of climate relevance and appropriately weighted. According to this methodology, the total amount of climate finance of the City of Skopje for 2018 and 2019 is estimated at US $ 5,608,527. Climate finance in 2018 amounted to US $ 2,302,659 and represents 4.65% of total spending in its own budget. Whereas, in 2019, climate finance had a significant absolute increase of US $ 1 million, amounting to US $ 3,305,869, accounting for 5.17% of total budget expenditures.

1. Introduction

Climate change is one of the most pressing threats to development today. Addressing climate change requires that countries transform their economies and grow in a different way — climate and development planning must be integrated so that policies and actions across multiple sectors and scales lower greenhouse gas emissions, reduce vulnerability to climate shocks and deliver poverty reduction gains.

Acording to Swedish International Development Cooperation Agency (SIDA), the overall environmental situation in North Macedonia is very poor. This is largely because environmental and climate issues are not prioritised, which leads to weak environmental management and lack of compliance with the environmental protection regulations that do exist. Public awareness of climate and environmental issues is low, and pollution of air, water and soil is commonplace. In many places air pollution is among the worst in Europe[1].

The awareness of climate change and its negative effects on the economic and social sphere and the overall quality of life in the Republic of North Macedonia has been increasing in recent years. Greenhouse gas mitigation and climate change adaptation initiatives are becoming increasingly important. North Macedonia, as a country that is underdeveloped and faces major economic problems, has a severe shortage of domestic climate resources. Support from bilateral and multilateral international sources plays a major role. There are available funds from the convention's financial mechanism (GEF, GCF and their associated entities) which Macedonia unfortunately uses very poorly. Namely, greater accountability is needed, in particular the development of climate initiatives by public sector entities (municipalities and ministries) to apply for projects and receive substantial sums from these main financial mechanisms of the convention. However, the influx of foreign aid to finance climate activities that has taken place in the period 2018 - 2019 is of great importance to our developing country.

Climate finance are considered all resources that finance the cost of transition to a lower-carbon and climate resilient economy and society. This covers both climate-specific and climate relevant financial resources, public and private, domestic and international. This includes: financial resources that go towards reducing emissions and enhancing sinks of greenhouse gases; reducing vulnerability, maintaining and increasing the resilience of human and ecological systems to negative climate change impacts; climate-resilient and low-emission strategies, plans and policies; climate research and climate monitoring systems; as well as climate change capacity-building and technology. Much detailed definitions of climate finance are provided in Box 1, according to OECD DAC Rio Markers.

Climate finance sources for North Macedonia can be classified into four different categories:

- bilateral finance, comes from one donor country in different forms: through individual donors, through donor agencies, directly in the form of Official Development Assistance (ODA) and through bilateral finance institutions.
- multilateral finance, if more than one country/entity provides the support and it is channelled through one donor agency
- domestic public finance and
- private sector finance

The Republic of Macedonia is a non-Annex I country to the UNFCCC (developing country) without quantified commitments for reducing the GHG emissions. At the same time, it has a status of a candidate country for European Union (EU) membership, having thus to adhere to the EU Climate and Energy Policy, which actually takes in commitments of the Annex I countries. The Republic of North Macedonia, on voluntary basis endeavors to integrate as

[1] https://www.sida.se/English/where-we-work/Europe/north-macedonia2/our-work-in-north-macedonia/

much as possible both aspects (UNFCCC and EU) in its national reports on climate change. In this regard, climate finance assessment in North Macedonia should be carried out using the OECD DAC methodology of Rio Markers which is accepted and applied by EU Member States. Also, with the entry of North Macedonia into the EU, it will automatically become a part of Annex I and Annex II countries that provide climate action support to underdeveloped countries and will therefore have to apply stricter convention criteria.

BOX 1. Definitions of climate finance

Definition of climate finance: Climate finance aims at reducing emissions, and enhancing sinks of greenhouse gases and aims at reducing the vulnerability of, and maintaining and increasing the resilience of, human and ecological systems to negative climate change impacts (adapted from the UNFCCC Standing Committee on Finance's definition of climate finance).

Definition of mitigation activities: An activity should be considered as climate change mitigation related if it contributes to the objective of stabilisation of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system by promoting efforts to reduce or limit GHG emissions or to enhance GHG sequestration (adapted from the operational definition and criteria for eligibility used in the OECD-DAC Policy Markers).

Definition of adaptation activities: An activity should be considered as adaptation related if it intends to reduce the vulnerability of human or natural systems to the impacts of climate change and climate-related risks, by maintaining or increasing adaptive capacity and resilience. This encompasses a range of activities from information and knowledge generation, to capacity development, planning and the implementation of climate change adaptation actions (adapted from the operational definition and criteria for eligibility used in the OECD-DAC Policy Markers).

Definition of climate relevant technology development and transfer: a broad set of processes covering the flows of know-how, experience and equipment for mitigating and adapting to climate change amongst different stakeholders such as governments, private sector institutions. The broad and inclusive term "transfer" comprises the process of learning to understand, utilize and replicate the technology, including the capacity to choose and adapt to local conditions and integrate it with indigenous technologies (adapted from the IPCC definition of climate relevant technology transfer).

Definition of climate relevant capacity building: capacity-building is a process which seeks to build, develop, strengthen, enhance and improve existing scientific and technical skills, capabilities and institutions particularly in developing countries, to enable them to assess, adapt, manage and develop technologies. Capacity building must be country-driven, addressing specific needs and conditions of developing countries and reflecting their national sustainable development strategies, priorities and initiatives (adapted from the UNFCCC definition of capacity building activities).

This report is structured as follows:

- Section 2 deals with the reporting obligations on climate finance that North Macedonia has as a non-Annex I country.

- Section 3 addresses the problems of identification and precise quantification of climate finance in the Republic of North Macedonia whose knowledge is necessary for further precise quantification of climate finance.

- The need to provide sufficient funding for climate activities for underdeveloped countries by Annex I countries is recognized by the Convention. Thus, the Convention has established mechanisms to provide international financial, technical, technological and capacity building support. The financial mechanism of the Convention available to our country is presented in section 4.

- But many countries in the world, not only developed but also less developed countries, have established their own financial mechanisms through which they allocate national funds to finance climate activities. They are presented in section 5.

- Section 6 provides an in-depth analysis of climate finance in the Republic of North Macedonia for the period 2018 - 2019. The international support applied during this period as well as the national resources invested are presented separately. Here special emphasis is given to climate finance from the state capital - the City of Skopje.

- Section 7 provides conclusions and recommendations for future action.

2. Reporting Obligation

The reporting obligations to the Convention of the non-Annex I countries are defined under FCCC/CP/2002/7/Add.2 and Dec.2/CP. 17 Annex III:

Non-Annex I Parties should provide information on financial resources and technical support for the preparation of their national communications provided by themselves, as well as those received from the Global Environment Facility (GEF), Annex II Parties or bilateral and multilateral institutions.

Non-Annex I Parties should also provide information on financial resources and technical support provided by themselves and by the GEF, Annex II Parties or bilateral and multilateral institutions, for activities relating to climate change.

and under Dec.2/CP.17 Annex III:

Non-Annex I Parties should also provide updated information on financial resources, technology transfer, capacity-building and technical support received from the Global Environment Facility, Parties included in Annex II to the Convention and other developed country Parties, the Green Climate Fund and multilateral institutions for activities relating to climate change, including for the preparation of the current biennial update report.

With regard to the development and transfer of technology, non-Annex I Parties should provide information on technology needs, which must be nationally determined, and on technology support received.

3. Problems and Challenges for the Identification and Precise Quantification of Climate Finance in the Republic of North Macedonia

How to identify and precisely quantify climate finance in the Republic of North Macedonia? How do the other Non-Annex I parties? These are the first questions to be answered.

The process of collecting climate finance data in North Macedonia is extremely difficult. In terms of the quantification of international support for climate activities that has been obtained, this involves identifying all relevant state institutions and NGOs and other stakeholders that may possibly use international support for financing climate activities. The quantification of climate finance is one of the biggest problems we face in preparing the BUR. In fact, this problem is identical for all non-Annex I countries.

For the purposes of this analysis, a comprehensive observation of the bi-annual climate change reports published by countries, in particular Non-Annex I countries, has been made. It is understood that the issue of climate finance is least addressed, and most countries report nothing on climate finance at all.

It suggests that the UNFCCC should invest much more in the future in unifying its methodology, approach and data collection process. Countries that have included climate finance information do so on the basis of gathering data on support received through a survey of potential beneficiaries, researching their websites, especially those on aid providers' websites, etc. Estimated amounts are at the level of commitment and / or support received for a particular project, as it is not possible to estimate precisely how much of the project budget is spent during the reporting period. There are also projects that started before and ended in the reporting period, as well as projects that started in the reporting period, and have not yet been completed. There are also announced projects, which have been contracted with an international donor / creditor, but as of the moment of data collection the money has not yet been received by the beneficiary.

Estimating domestic public climate finance, ie own funds from public and private sources, which are spent on climate activities, is an even more difficult process, given that they are a multidimensional issue. In essence, activities that may be related to climate change (either mitigation or adaptation) can be identified, but most of them have been undertaken for another principal or significant target (eg. environmental protection, energy efficiency and other purposes), but not for climate change as a major or significant target. It implies that the actual application of world methodologies such as the Rio marker methodology is currently limited. In order to be able to apply any methodology for identifying climate activities in the area of public finance (either the Rio methodology or the Multilateral Development Banks methodology) it is necessary to prioritize each activity as a climate activity (at the level of major or significant) in budget programs. More specifically, it would mean a **major change in the budgeting process at national and local level.**

When programming any activity in the budgets of public sector entities (especially municipalities, ministries of economy, agriculture, environment, etc.) the item envisaged in the budget for next year should be given an indication of climate activity, whether major if it is entirely dedicated to climate activity, or significant if it is intended for another purpose, but contributed to climate action. To make this operational in practice, it is necessary **to raise awareness of climate finance**.

The first step is to **train** relevant individuals from public sector entities, in particular those who are specialists in finance and budgeting, to gain a thorough understanding of climate change. Climate actions are more dimensional. Their recognition requires a thorough knowledge of greenhouse gas issues, which causes them, reduces them, eliminates them. It also requires a thorough understanding of how the adaptation process and climate change resilience work. Only if individuals in public sector entities have a good understanding of climate action (whether those aimed at mitigation or adaptation) will a climate-budgeting and climate-reporting base be established.

Further, public sector entities would be required to complete a **Climate Finance Form** that would be submitted to a central unit (eg either the MoEPP or the Ministry of Finance) that would synthesize all that data. Here, there should be a few individuals who would be employed and devoted to compiling, refining and synthesizing data. A process of their analysis would follow.

However, as there may be gaps in reporting as an alternative to this process, a better solution is the approach of identifying climate actions from the submitted realized budgets at the level of project and activity presentation. Out of the projected budgets delivered at project or activity level, individuals specializing in climate finance need to go from activity to activity and extract only those activities that they consider to be climate-related. These individuals with strong capacities in the area of finance, in particular climate change, will be able to: 1) clearly determine whether the identified climate action activity is aimed at principal or significant; 2) Decide appropriately what weight to give to the activity (100%, 40% or 0).

In any case, the climate budgeting process is the best approach for establishing a permanent basis for identifying climate actions. This is further elaborated in the document "*Criteria for determination of climate change related programmes/ projects/ activities, and the most adequate methodology for regular collection of data and information on national/ local resources allocated for climate change*".

4. Sources of International Support for Non-Annex I Parties

4.1. Climate Finance Mechanism of the Convention[2]

The contribution of countries to climate change, and their capacity to prevent and cope with its consequences, varies enormously. The Convention and the Protocol therefore foresee financial assistance from Parties with more resources to those less endowed and more vulnerable. Developed country Parties (Annex II Parties) shall provide financial resources to assist developing country Parties in implementing the Convention. To facilitate this, the Convention established a Financial Mechanism to provide funds to developing country Parties.

The Convention, under its Article 11, states that the operation of the Financial Mechanism is entrusted to one or more existing international entities. The operation of the Financial Mechanism is partly entrusted to the Global Environment Facility (GEF). At COP 17 Parties decided to designate the Green Climate Fund (GCF) as an operating entity of the Financial Mechanism of the Convention, in accordance with Article 11 of the Convention. The Financial Mechanism is accountable to the COP, which decides on its climate change policies, programme priorities and eligibility criteria for funding.

[2] https://unfccc.int/topics/climate-finance/the-big-picture/climate-finance-in-the-negotiations

The Kyoto Protocol also recognizes, under its Article 11, the need for the Financial Mechanism to fund activities by developing country Parties.

In addition to providing guidance to the GEF, Parties have established four special funds: the Special Climate Change Fund (SCCF), the Least Developed Countries Fund (LDCF), both managed by the GEF, and the GCF under the Convention; and the Adaptation Fund (AF) under the Kyoto Protocol.

At COP 16 Parties decided to establish the Standing Committee on Finance to assist the COP in exercising its functions in relation to the Financial Mechanism of the Convention.

Launched at COP 17 and extended for one year at COP 18, the work programme on long-term finance concluded its work at COP 19 in Warsaw. COP 19, in decision 3/CP.19, included activities on long-term climate finance for the period 2014-2020. These include biennial submissions by developed country Parties on their strategies and approaches for scaling up climate finance from 2014 to 2020, in-session workshops to facilitate deliberations on long-term climate finance and biennial high level ministerial dialogues on climate finance starting in 2014.

Funding for climate change actvities is also available through bilateral, regional and multilateral channels.

4.2. Bilateral and Multilateral Funding

Article 11.5 of the Convention states that the developed country Parties may also provide and developing country Parties avail themselves of, financial resources related to the implementation of the Convention through bilateral, regional and other multilateral channels. The following are of the programmes and projects on climate change of multilateral financial institutions and bilateral development agencies:

MULTILATERAL FINANCIAL INSTITUTIONS	Facility
African Development Bank (AfDB)	Climate Change
Asian Development Bank (ADB)	ADB and Climate Change Mitigation ADB and Climate Change Adaptation Clean Energy Program Energy for All Initiative Funds and Partnerships Water Financing Program Poverty and Environment Program
Caribbean Development Bank (CDB)	Disaster Risk Management and Climate Change
Central American Bank of Economic Integration (BCIE)	
European Investment Bank (EIB)	Climate Action
Inter-American Development Bank	
International Bank for Reconstruction and Development (The World Bank)	Climate Change Climate Investment Funds Partnerships Projects and Operations Carbon Funds and Facilities
International Finance Corporation (IFC)	Clean Technologies Sustainable Energy

	Carbon Finance
Islamic Development Bank (IDB)	

Bilateral development cooperation agencies

Australia	Australian Aid Overview of Australia's assistance for climate change Climate change and environment initiatives
Austria	Austrian Development Cooperation (ADC)
Belgium	Belgian Development Cooperation (Foreign Affairs, Foreign Trade and Development Cooperation)
Canada	Canadian International Development Agency (CIDA)
Denmark	Danish Development Agency (DANIDA) Industrialization Fund for Developing Countries (IFU)
European Commission	Climate Action Global Climate Change Alliance
Finland	Ministry for Foreign Affairs (climate change - global policy and cooperation)
France	Agence francaise de developpement (AfD) Department for International Cooperation Fond Francaise pour l'Environnement Mondial (FFEM)
Germany	Federal Ministry for Economic Cooperation and Development (BMZ) Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH Kreditanstalt fuer Wiederaufbau (KFW) Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)
Greece	Ministry of Foreign Affairs
Ireland	Department of Foreign Affairs and Trade (Irish Aid)
Italy	Ministry of Foreign Affairs
Japan	Ministry of Foreign Affairs (MOFA) Japan Bank for International Cooperation (JBIC) Japan International Cooperation Agency (JICA)
Luxembourg	Lux-Development
Netherlands	Netherlands Development Cooperation
New Zealand	New Zealand Aid Programme (NZAID)
Norway	Ministry of Foreign Affairs (ODIN) Norwegian Agency for Development Cooperation (NORAD)
Portugal	Ministry of Foreign Affairs Portuguese Cooperation Institute
Spain	Ministerio de asuntos exteriores y de cooperation
Sweden	Swedish International Development Cooperation Agency (SIDA)
Switzerland	Swiss Agency for Development and Cooperation (SDC) State Secretariat for Economic Affairs (SECO)
United Kingdom	Department for International Development (DFID)
United States of America	United States Agency for International Development (USAID)

4.3. Climate Finance in the Paris Agreement

Article 9 of the Paris Agreement stipulates that developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention. Other Parties are encouraged to provide or continue to provide such support voluntarily.

Furthermore, as part of a global effort, developed country Parties should continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments and channels, noting the significant role of public funds, through a variety of actions, including supporting country-driven strategies, and taking into account the needs and priorities of developing country Parties. Such mobilization of climate finance should represent a progression beyond previous efforts.

In addition, Article 9 states that the provision of scaled-up financial resources should aim to achieve a balance between adaptation and mitigation, taking into account country-driven strategies, and the priorities and needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the least developed countries and small island developing States, considering the need for public and grant-based resources for adaptation.

With regard to ex-ante communication of information, developed country Parties shall biennially communicate indicative quantitative and qualitative information related to paragraphs 1 and 3 of Article 9, as applicable, including, as available, projected levels of public financial resources to be provided to developing country Parties. Other Parties providing resources are encouraged to communicate biennially such information on a voluntary basis.

The global stocktake referred to in Article 14 of the Agreement shall take into account the relevant information provided by developed country Parties and/or Agreement bodies on efforts related to climate finance.

With regard to the issue of transparency of support, developed country Parties shall provide transparent and consistent information on support for developing country Parties provided and mobilized through public interventions biennially. Other Parties are encouraged to do so.

The Financial Mechanism of the Convention, including its operating entities, and the Standing Committee on Finance, shall serve as the financial mechanism of this Agreement. In addition, Article 9 stipulates that the institutions serving this Agreement, including the operating entities, shall aim to ensure efficient access to financial resources through simplified approval procedures and enhanced readiness support for developing country Parties, in particular for the least developed countries and small island developing States, in the context of their national climate strategies and plans.

At COP 21, it was also decided that developed countries intend to continue their existing collective mobilization goal through 2025 in the context of meaningful mitigation actions and transparency on implementation, and that prior to 2025 the Conference of the Parties serving as the meeting of the Parties (CMA) to the Paris Agreement shall set a new collective quantified goal from a floor of USD 100 billion per year, taking into account the needs and priorities of developing countries.

Furthermore, the COP resolved to enhance the provision of urgent and adequate finance, technology and capacity-building support by developed country Parties in order to enhance the level of ambition of pre-2020 action by Parties, and in this regard strongly urges developed country Parties to scale up their level of financial support, with a concrete roadmap to achieve the goal of jointly providing USD 100 billion annually by 2020 for mitigation and adaptation

while significantly increasing adaptation finance from current levels and to further provide appropriate technology and capacity-building support. Parties also decided to conduct a facilitative dialogue in conjunction with the twenty-second session of the Conference of the Parties to assess the progress in implementing decision 1/CP.19, paragraphs 3 and 4, and identify relevant opportunities to enhance the provision of financial resources, including for technology development and transfer and capacity-building support, with a view to identifying ways to enhance the ambition of mitigation efforts by all Parties, including identifying relevant opportunities to enhance the provision and mobilization of support and enabling environments.

5. The Need to Establish Domestic Sources of Climate Finance

Implementing climate projects and activities requires clear funding strategies that involve mobilizing resources from both the public and private sectors. International climate change financing will play a key role in this and will be most effective when harmonized within the domestic budget and used catalytically to leverage additional private funding. A strong, performance-oriented domestic budget that integrates climate risk and reduces greenhouse gas emissions will allow for harmonization of international and private financial flows. In terms of climate change adaptation, most climate activities will need to be managed by national and local authorities through their domestic budgets. Strong oversight and accountability are essential to ensure effective management of climate change-related resources to build sustainable, resilient and equitable societies.

In order to provide a wide range and variety of climate activities, providing a sufficient amount of financial resources to finance them is crucial. Countries that take decisive steps to combat climate change have developed mechanisms that specialize in financing climate activities. In addition to their own budget funds earmarked for financing climate activities, national and local authorities need to establish new mechanisms following the example of countries in the world. In this regard, we will highlight two key mechanisms:

- Establishment of a National Green Climate Fund
- National and Local Climate and Green Finance Instruments

In addition to these two, there are other specialized mechanisms in the different countries of the world that provide funding for climate activities, eg. Energy Efficiency and Demand Management Fund.

5.1. National Climate Fund

An important tool for countries to manage climate finance is a National Climate Fund. NCFs are nationally-driven and nationally-owned funds that help countries to collect climate "nance from a variety of sources, coordinate them, blend them together and account for them. In this way, countries are in the driving seat and can make informed choices for how direct resources toward activities that deliver results on the ground.

The Government of many countries, usually through the Ministry of Environmental Affairs has set up a Green Fund / Climate Fund, to support the transition to a low carbon, resource efficient and climate resilient development path delivering high impact economic, environmental and social benefits. The allocation of funds from national / local budgets represents the initial resources available for disbursement by the Green Fund / Climate Fund. Usually, the National Development Bank is appointed the as the implementing agent of the Green Fund.

One tool that can help countries respond to these challenges is a National Climate Fund (NCF). An NCF is a mechanism that supports countries to manage their engagement with climate finance by facilitating the collection, blending, coordination of, and accounting for climate finance. NCFs provide a countrydriven system that can support climate change goal setting and strategic programming, oversee climate change project approval, measure project implementation and performance, o#er policy assurance and financial control of climate change funds and assist with partnership management. NCFs help countries to blend various resources together at the national level, providing a mechanism for shifting power away from traditional top-down fund management to country-level management. A country's climate change objectives are managed and supported from the inside out, not the other way around.

Designing an NCF requires carefully considering its objectives and then crafting a structure that supports the achievement of these objectives. Many NCFs deliver a common set of services, however the exact components and structures to deliver the services vary greatly according to national circumstances and priorities. In other words, the way in which the fund's components are designed shapes how the NCF delivers its support. For example, an NCF capitalized by international and national public finance will collect and blend resources diferently that an NCF that relies only on private finance. Tailored fiscal tools and mechanisms will be required to access and channel public and private sources efectively. Further, depending on its capitalization modalities, an NCF may aim to strengthen capacities of national stakeholders, including for direct access to climate finance.

5.1.1. Key Goals of a National Climate Fund

The Green Fund / Climate Fund aims to provide catalytic finance to facilitate investment in green initiatives that will support poverty reduction and job creation. Importantly, the Fund will only support initiatives which would not have been implemented without its support. The Green Fund is additional and complementary to existing fiscal allocations supporting the transitioning of the economy to a low-carbon, resource efficient and climate resilient growth path.

Due to its focus on innovative projects, unless a strong case is made for the coverage of a funding or financing gap, the Green Fund / Climate Fund will not support such projects.

The Green Fund/ Climate Fund will respond to market weaknesses currently hampering transition to a green economy by:

- promoting innovative and high impact green programmes and projects
- reinforcing climate policy objectives through green interventions
- building an evidence base for the expansion of the green economy, and
- attracting additional resources to support green economy development.

The key goals of a National Climate Fund are:

- Collect sources of funds and direct them toward climate change activities that promote national priorities
- Blend finance from public, private, multilateral and bilateral sources to maximize a country's ability to advance national climate priorities
- Coordinate country-wide climate change activities to ensure that climate change priorities are efectively implemented
- Strengthen capacities for national ownership and management of climate finance, including for "direct access" to funds

5.1.2. Common Functions of a National Climate Fund

Once a country decides to establish an NCF, stakeholders must identify the specific and necessary functions of the NCF. Functions should build upon existing mechanisms and systems that support action on climate change. They can include goal setting, strategic programming, capitalization, partnership management, project approval, policy assurance, financial control and performance measurement. Each should be considered carefully. The functions of an NCF influence its components and services. An NCF with ill-designed functions runs the risk of not only failing to reach its goals, but of undermining progress toward low-emission, climate-resilient development.

In the world experience, there are a number of core functions that are common to any funding mechanism, including NCFs. First, an NCF should enhance or provide a system that supports **goal setting and the development of programmatic strategies** on climate change. By setting in place a process that aligns and supports existing general goals and strategic programmes, the NCF can provide a coordinated supporting structure to a country's national climate and development priorities. Further, by facilitating regular discussions and stakeholder engagement on national climate issues, an NCF can serve as a central body for discussion and decision-making about how the NCF will support national action.

An NCF should provide for **fundraising** toward climate priorities. Indeed, the capitalization of the NCF — its ability to collect and raise funds — is one of the core functions that make an NCF a useful tool for implementing low-emission, climate-resilient development. Capitalization can take a variety of forms and can utilize public, private, multilateral, bilateral and innovative sources of finance.

An NCF can provide a mechanism for **managing partnerships** by clearly defining and coordinating the roles of various climate change stakeholders. The NCF can complement and support the management of relationships with other financing mechanisms, such as those under the UNFCCC or with other multilateral, bilateral, public and private sources. It can also ensure the clear management of the responsibilities of stakeholders at all levels and across climate change initiatives.

NCFs can provide a coordinated **project approval and implementation structure** for climate change programming. Uniform project cycle guidelines that clearly outline the technical and eligibility requirements support streamlined operations. Well-conceived guidelines can facilitate the transparent approval process of NCF climate change initiatives.

Moreover, an NCF can supply systems to ensure that quality standards are met throughout its operations. NCFs other **policy assurance** through social and environmental safeguards, **financial controls** that ensure fiscal monitoring and reporting and **performance measurement** that outlines specific performance criteria and then evaluates projects and programmes to ensure that the NCF delivers effectively and efficiently.

The NCF can become an important source of **knowledge and information management** that consolidates and disseminates lessons from climate change projects and programmes. The exchange of such information can build capacity, help projects implement good practices and spur innovative solutions to implement country-driven priorities on climate change.

Building on the fund's objectives, a country should consider the types of resources that would best capitalize the fund. Indeed, deciding where the funds will come from is one of the most important choices that will shape the NCF. Many sources of "nance — including international, national, public and private — can be delivered through an NCF, but they must build on

existing frameworks and be supported by appropriate structures to access and channel funding efficiently.

Generally, if a fund has a broad set of objectives, it usually blends together a broader array of sources than more targeted NCFs. An NCF with wide objectives — for example, supporting all of the activities under a low-emission, climate-resilient development strategy — may aim to collect funds from international and national sources so that a wide variety of activities can be covered. A fund with a more targeted mission will often only focus on a single source, such as those from one bilateral partner.

A country may also want to consider the use of innovative financing mechanisms to provide capital for an NCF. In this case, an NCF is designed to collect resources from non-traditional sources of finance such as levies on oil or coal production, fees from polluting companies or proceeds from carbon markets. Revenues from these sources are collected by an NCF and then directed toward the programmes and projects that fulfill the goals of the NCF. For example, the Brazil National Fund on Climate Change collects funds from revenue from the oil production industry and channels them toward climate change mitigation and adaptation activities.

5.1.3. Key Decision in Establishing NCF

The establishment of the NCF is considered to be a complex procedure and requires making right decisions in it appropriate designing. There is no common formula, the right decisions are determined of the national circumstances. Given the diversity of design options, there are a number of key decisions that must be made in order to ensure that an appropriate and effective NCF structure is established that maximizes the delivery of climate finance to support national priorities. Those key decisions referees to the following key aspects:

- Key Decision: Defning the Objectives
- Key Decision: Identifying Capitalization
- Key Decision: Instilling Effective Governance
- Key Decision: Ensuring Sound Fiduciary Management
- Key Decision: Supporting Efficient Implementation Arrangements
- Key Decision: Facilitating Effective Monitoring, Reporting and Verification

The establishment of the NCF requires undertaking compete study by the Government of the Republic of North Macedonia, where all above key aspect and determinants will be designed in a most appropriate way.

Case example: China Clean Development Mechanism Fund (CCDMF)

Established by the Ministry of Finance and the National Development and Reform Commission in 2007, the China CDM Fund is an innovative finance mechanism that collects resources from revenues generated from CDM projects in China, earnings from CDM business operations, grants and other types of cooperation and support from multilateral development institutions. The fund provides grants and investments for initiatives that address climate change and promote social and economic sustainable development. It also provides preferential loans to energy-saving and renewable energy projects. The fund expects to have $1.5 billion for renewable energy.

Case example: Brazilian National Fund on Climate Change

The fund was created to allocate a portion of the government's revenue from oil production to mitigate the impact of oil production and combat climate change. The fund was established by a law adopted in December 2009 and provides grants and loans to adaptation and mitigation initiatives. The resources from the fund can also be used to leverage international public finance and private finance in pursuit of the fund's mandate. The fund is overseen by the Ministry of Environment and operated by the National Social and Economic Development Bank.

Case example: Green Climate Fund in South Africa

The Green Fund in South Africa has identified three (3) thematic funding windows which will contribute to the transition to green economy.

- ***Green Cities and Towns (GCT)***

Local government, through public sector procurement and alignment of spending on infrastructure and services, with environment performance indicators, can play a significant role in generating the demand for green products and services. This in turn can create greater localisation of green technologies. By assisting in implementation at local government, the Green Fund can play a role in catalysing significant levels of both public and private sector investment in the green economy.

The vision of the GCT window is to strive for well run, compact and efficient cities and towns that deliver essential services to their residents, utilising available natural resources efficiently and sustainably.

Focus areas:

- Sustainable transport
- Sustainable Waste management & recycling
- Renewable energy, including off grid and mini grid
- Sustainable water management
- Energy Efficiency & Demand Side Management
- Sustainable human settlements, the built environment and green buildings
- Ecosystem services

Eligible applicants: this window is open to proposals from municipalities, municipal entities, suppliers to municipalities and small and medium enterprises. For private sector applicants, confirmation of support from municipality must be provided in the application.

- ***Low Carbon Economy (LCE)***

The decoupling of economic growth from its impact on natural resources will be driven by private sector efforts to lower environmental impact and resource consumption. This can be achieved through clean production methods and other climate change mitigation and adaptation measures. These include interventions targeting industrial efficiency and the carbon intensity of the economy including energy efficiency, reducing pollution from industrial processes, waste management and reuse of by-products.

The vision of the LCE window is to strive towards a low carbon growth trajectory in line with national climate change policy principles.

Focus Areas:

- Energy efficiency
- Renewable energy
- Rural energy including off grid and mini grid
- Biogas and biofuels
- Sustainable transport
- Industrial cleaner production and consumption projects

Eligible applicants: this window is open to proposals from the private sector (including small and medium enterprises), research and non-governmental organisations.

Exclusions: The fund will not consider proposals from large Renewable Energy Independent Power Producers, nor from bio-fuels projects that utilise invasive plants and food sources as feedstock.

- ***Environmental and Natural Resource Management (NRM)***

The protection of biodiversity and securing the sustainable delivery of ecosystem services is the primary focus of this Window. These include interventions targeting ecosystem based adaptation to climate change that could drive rural development models. Managing and reducing the impact of agriculture and land use changes through demand management and resource conservation will be supported.

The vision of the NRM window is to strive for protected and conserved resources for sustained ecosystem services to support South Africa's development path.

Focus areas:

- Payment for Ecosystem Services (PES) projects
- Biodiversity Benefiting businesses, including sustainable farming
- Land use management and models
- Rural adaptation projects and plans

Eligible applicants: this window is open to proposals from the private sector (including small medium enterprises), non-governmental organisations, universities and research institutions, and community based organisations.

Exclusions: For private sector applicants, cost of conversion from conventional agriculture to sustainable agriculture will not be supported.

5.2. National and Local Climate and Green Finance Instruments

Green Bond is a fixed income financial product that is earmarked to be used in a climate and or environmental project. Climate Bond as a financial term has appeared relatively recently and often can be used interchangeably with the term Green Bond, that has been used longer. Green Bonds are especially designed to finance sustainable project, and those that are either environment-neutral or aim to improve environment. Hence, the Green Bonds are used to finance projects improving energy efficiency, pollution prevention, waste management, sustainable agriculture, fishery and forestry, the protection of aquatic and terrestrial ecosystems, clean transportation, sustainable water management and the cultivation of

environmentally friendly technologies. Green/climate bonds are interesting for investors as they not only are seen as responsible investment, but also provide some tax incentives and credits. Green Bonds may give certain tax advantages which may be helpful in designing the investment portfolio.

Green Bond market is one of the fastest growing financial markets. For instance, in 2012, only USD 2.6 billion of Green Bonds were issued, whilst it is estimated that in 2019, USD 200 billion mark will be passed, which makes the growth of almost 100 times.[3] From 2007 to 2018, over USD 521 billion of green bonds were issued, with over USD 167 billion issued in 2018 alone (see: Climate Bond Initiative, 2019). The US have topped the table with USD34 billion, followed by China with USD 31 billion. France was third with USD 14 billion, Germany fourth with USD 7.6 billion, and Netherlands with USD 7.4 billion green bonds issued was fifth (see: Climate Bond Initiative, 2019).

One of the major issuers of green bonds is the World Bank[4] that uses the issues to finance some of the major infrastructure projects in developing nations. However, as we have seen, China, the US and EU are other major players in the market. Chinese interest in Green Bond has been growing with an exponential pace. Currently, the Chinese issued bonds account for over 1/3 of the total issue.

Despite growth the size of the Green Bond market is relatively small, hence influencing the liquidity of the instruments. Classical bond market is by far more liquid. As the green bond market is still relatively new, mispricing and lack of fundamental research are another challenge that may make this investment more risky. In principle, Green Bonds may have lower yield than the classical bond, and like other bonds may be subjected to some speculative actions (interest rate fixing, or even money laundering). Green Bond regulation is still not robust and many systemic challenges remain. For instance, some of the nuclear power companies have issued Green Bond, but one may question as to whether nuclear power is really – green.

The Nordic region (Denmark, Finland, Norway, Sweden and the Baltic states – Estonia, Latvia and Lithuania) is an important issuer of Green/Climate Bonds. In fact, in the Nordic countries sub-national governments are an important player. In 2016, local governments have issued 11 per cent of green bonds, whilst municipally or state owned corporations issued 13 per cent of the total. Local government financing agencies (or MDF) have participate in the total with 23 per cent. In other words, local governments and local government related institutions (like the municipal corporations) have participated with almost 50 per cent of the total issue on the Nordic (Public) Green Bond Market (see: Climate Bond Initiative, 2018). Many of the bonds are however issued and are trading in other jurisdictions, like London Stock Exchange (LSE).

The structure of green investment in Sweden has shown that in 2018 finances have used towards toxin-free urban environments, clean seas and protection of drinking water, investment in solar-cells, fossil-free transport and travel, sustainable bio-fuels, green-industry leap, and climate leap (see: Climate Bond Initiative, 2018). Climate leap programme focuses on the reduction of greenhouse gas emissions supporting the projects put forward by local government, municipal corporations and other entities. Green Industry Leap is a policy initiative by the government where the new industries will be more 'green' compliant, and there will be a support to reduce greenhouse gasses to zero by 2040. The annual budget is about

[3] See: https://www.moodys.com/research/Moodys-Green-bond-market-poised-to-hit-200-billion-in--PBC_1159526?showPdf=true
[4] Closely followed by EIB, AfDB, ADB and EBRD

EUR30 million per year from 2018 to 2040. There are also many local and regional government programmes that are supported by the central government, and these can be used for co-financing. Local governments amount for about 2 per cent of the total green bonds issued in Sweden and 82 per cent of those have been issues in local currency (Swedish krona – SEK). Green bonds make 24 per cent of total municipal bonds issued, with the outstanding value of EUR1.9 billion (21 per cent of the total outstanding debt). Municipal bonds in Sweden, have outstanding value of EUR9.1 billion.

It is notices in Sweden that stronger municipalities are directly approaching banks and are issuing bonds, whilst the smaller and financially weaker ones are still borrowing from *Kommuninvest*.[5] However, in the portfolio of loans, municipalities represent 40 per cent, municipal housing companies make 30 per cent and other municipal companies participate with 22 per cent.[6] Bank loans are declining, with the growth in bond issuance. Also, green bonds are still relatively underrepresented, but with are strongly supported by the different government promotion policies and initiatives and will certainly grow in the near future.

The first green bond in Sweden was issued by the City of Gothenburg in 2016. Gothenburg has also acquired the Moody's Green Bond rating (GB1), the first city in Sweden to get it. Until now the City has two issues of green bond. At present eight Swedish municipalities have issued green bond and three of them (Gothenburg, Malmö and Stockholm's Läns Landsting[7]) have had their bond listed on LSE. Municipal owned companies have also started being active in the green bond market, mainly issuing bonds in SEK and on the local market. In some cases the fact that they did not report using IFRS[8], made them unsuitable to raise the funds on the international market. All the outstanding green bonds issued by municipal corporations were with the maturity of five years and related to the property – either municipal housing corporations or municipal real estate management company.

A number of Swedish municipalities have issued vanilla bonds[9], and may be considered to have potential to issue green bonds in the near future. The large Swedish municipalities (with debt over EUR600 million) have mainly focused on raising funds through the bond issue, with very little resorting to *Kommuninvest* and/or bank loans (less than 25 per cent of total debt incurred). For instance, many of these municipalities have invested heavily in improving health and transport infrastructure and both areas of intervention may be suitable for the green bond issue. For instance, the renovation of hospitals has attracted the green bond issues in Switzerland (especially the Cantone Genève).

Municipal housing corporations have already experimented with the green bond issues and at present three of them have financed housing expansion and renovation through the green bond of total value of EUR327 million. Investment in water, low-carbon project and wind energy have been in the past financed by vanilla bonds, but qualify to be financed by green bonds. In Norway, for instance, municipalities have been the most active in issuing green bonds, focusing the interventions that clearly meet the 'green' standards – transportation, energy, and greenhouse gas emission management. Norwegian municipalities, similar to the Swedish one have issued green bond on the domestic market, in domestic currency,

[5] *Kommuninvest* is a Swedish local government financing agency that was set up in 1986, with a task to provide finance to the municipalities, but raising funds in the domestic and international market. It is a triple A rated and has until now raised more than USD5 billion, in various currencies – Swedish krona, US Dollar, EURO, Japanese Yen. (see: https://kommuninvest.se)
[6] See: https://kommuninvest.se/en/
[7] i.e. Stockholm County Council
[8] International Financial Reporting Standards (previously, the International Accounting Standards – ISA)
[9] A (Plain) *Vanilla Bond* is a *bond* without any unusual features; it is one of the simplest forms of *bond* with a fixed coupon and a defined maturity and is usually issued and redeemed at the face value. Plain vanilla bond is also known as a 'straight' or 'bullet' bond.

Norwegian krona – NOK. In Norway, over 30 per cent of the government debt is in bonds, the largest proportion amongst the Nordic countries. Oslo is the biggest issuer of bonds (EUR8.4 billion), whilst Bergen is leading in issuing the green bonds (EUR147.5 million). Energy companies are the major issuer of green bonds, especially those in oil sector.

In Finland, municipalities' participation in the bond market is less than 4 per cent, whilst they amount for almost 88 per cent of the loans to the public sector. Finnish commercial bond issue was EUR113.6 billion in 2017. *MuniFin* [10] is a major lender to the municipalities and local government associations. MuniFin bonds are the first choice, as there is no need to consult or seek prior approval from MoF. In the case of bonds, municipalities and local government associations have to enter fairly lengthy procedure, before they are allowed to issue and actually issue bonds. Notwithstanding the challenges a number of Finnish municipalities have issued bonds (ten of them)[11], and more are considering the bond financing option. Municipal owned corporations[12] have been active in bond financing, but have not yet engaged seriously in issuing green bonds.

However, not all green/climate bonds meet 'green' criteria in full. For instance, in 2018, USD 167.6 billion has met the criteria, whilst over USD21.7 billion (of supposedly 'green bonds') have not (see: Climate Bond Initiative, 2019). This is why there is a movement to have green bonds certified. In principle, the green bond label can be applied to any debt format, including private placement, securitisation, covered bond, and *Sukuk*[13], as well as labelled green loans which comply with the Green Bond Principles (GBP) or the Green Loan Principles (GLP).[14] The issuers are encouraged to apply for bond certification, ensuring that the issue meet Climate Bonds Standard and Sector Criteria.[15] Independent approved verifiers provide a third-party assessment that the use of proceeds complies with the objective of capping global warming at 2°C (see: Climate Bond Initiative, 2019).

Local governments are still relatively small issuer, as the central government agencies and state-linked corporations are major public sector issuer. However, local government are fast growing issuer, especially in the Asia-Pacific region. And, increasingly the local governments are seeking the green bond certification, either international or national (for instance in Malaysia). As green bonds can be issued for almost any investment that contributes to sustainability and climate action, they are attractive to proactive local governments, especially for infrastructure and housing projects. Local governments are major issuer of green bonds in the up to 10 years of maturity market segment, and they will probably increase their share of the market in years to come. Increasingly local governments in developing countries are interested in issuing certified green/climate bonds, as the western investors are increasingly more interested in the environmental protection. [16]

In the emerging market it may be necessary first to develop the classical bond market, and then focus on the green bond segment market. However, although this may be a logical

[10] *MuniFin*, i.e. the Municipality Finance Plc. Is a public sector own credit institution specialised in the financing and financial risk management of the Finnish public sector – municipalities, state-owned corporations (including the companies where the public sector has a majority share), and not-for-profit housing corporations and associations. The owners are municipalities, the Finnish State, public corporations, including *Keva*, the Finnish national public sector pension fund. (see: https://www.munifin.fi)
[11] The issue range from EUR25 million to EUR50 million, with an average of EUR38 million. As these are fairly modest issues, they have been accommodated on the national bond market. No Finnish municipality has accessed the international market, as yet.
[12] In Finland, there are currently 120 municipal owned corporations
[13] An Islamic Bond-like instrument
[14] See: Green Loan Principles, LMA, Mar 2018: https://www.lma.eu.com/news-publications/press-releases?id=146
[15] See: https://www.climatebonds.net/standards/about
[16] Sky CEO, saving the environment 'good business' , 23rd October, 2019 (see: https://uk.finance.yahoo.com/news/sky-jeremy-darroch-ocean-rescue-good-business-plastic-103842473.html)

sequence of steps, it is also possible to focus on the green bond market segment, almost at the same time, as the vanilla bonds market is developing. The environmentally responsible investors may not be interested in the standard bond issue, especially in the developing countries, but rather being more social responsible may consider investment in the green bond in emerging countries not only environmentally, but also socially responsible investment.

6. Climate Finance in the Republic of North Macedonia in the Period 2018 - 2019

Providing funding for climate activities on a consistent basis is essential. In this regard, international support for financing climate activities is crucial for North Macedonia as a developing country and recognizes the enormous benefits of the inflow of foreign resources. As a non-Annex I country to the Convention, North Macedonia is a recipient of international support and is therefore required to report the amount of support received in the subsequent two-year period. In the last two-year period, the bilateral support from the European Union has the highest contribution to financing climate activities. In particular, the Instrument for Pre-Accession Assistance has enabled many municipalities, NGOs and ministries to implement projects, especially in the field of energy efficiency, and thus contribute to the global fight to reduce greenhouse gas emissions and mitigate the adverse effects of climate change. people's lives. In fact, much of the support that has been received has been used to finance projects predominantly to mitigate the effects of climate change. But it must be emphasized that the amount of support we receive is far from sufficient to meet the needs of undertaking other significant mitigation and adaptation activities, which is a commitment to greater engagement in the future.

Also, as a developing country, North Macedonia allocates a considerable amount of its own budget funds for financing climate activities, which is still below the required level. The adverse effects of climate change are becoming an almost everyday topic that is increasingly awakening to the need for proactive action, implementing change and allocating as many resources as possible for climate action.

This biennial report provides an overview of the support received in 2018 and 2019 in updating information from the previous Second Biennial Climate Change Report. The following text gives an overview of the support received in many respects, the channels through which it has been received (bilateral, multilateral or other), the type of funding (grant, credit, capital, etc.), the sectoral structure in which the assistance is targeted, the purpose of funding (mitigation, adaptation or mixing), and how much is climate-specific (CS) or climate-relevant (CR). CSs are those projects that are fully climate-targeted projects, while CRs are those that are not labeled as climate, but with their implementation have significant climate benefits either for mitigation or adaptation.

In particular, the domestic public climate finance from the sectoral ministries and the City of Skopje will be elaborated to the extent that we have been able to obtain analysis data.

Here, it is recognized that there is no assessment of private climate finance, which is the most complex information to collect. Monitoring private climate finance will remain a commitment in the preparation of future biennial update reports.

6.1. Estimation of International Financial Support Received

6.1.1. Methodology for Monitoring Financial, Technical, Technological and Capacity Building Support

Given that there is no single centralized system for automatic data collection of received support, amount of support and source i.e. provider of it, the biggest chalenge is the way to obtain relevant, reliable and comprehensive data so that accurate support assessment can be made. The approach used to collect data on international support received was through a survey that was sent to all potential support users (government institutions, line ministries, municipalities, NGOs, etc.). As usual, some of the respondents did not respond. Therefore, much of the data was collected from research on the websites of beneficiaries of the international support, and in particular from the websites of funders (donors and lenders). Most of the support received was in the form of project financing, so support for climate activities was assessed at project level. All amounts are expressed in US dollars. In fact, this approach of assessing the climate finance from support received, is used by all countries that have already published a third BUR, although many of those do not report anything about climate finance.

In our survey, entities were required to provide more detailed information on projects, including the purpose of the project, the description of the project, the organization implementing it, especially the amount of the total budget, and separately how much was spent in 2018 and 2019. Not all respondents provided complete data on the amount of funds spent by years, so the assessment was conducted as a combination of committed / received funds, according to the data provided. An even bigger problem in the assessment was that there are projects that started before 2018 and that have not yet been completed, but also projects that were started in 2018 or 2019 and will continue after 2019.

All of the information provided in this report covers all active and ongoing projects, most by the amounts received and spent in this two-year reporting period, whereas where we did not have such information, the committed amount was taken. North Macedonia is a beneficiary of significant amounts of funds from the EU Instrument for Pre-Accession Assistance, especially in the area of cross-border cooperation. For these EU IPA funded projects, which relate to funding two or more countries, we managed to extract and allocate only the amount committed / spent in North Macedonia for each project. All those projects where only the committed amount was reported, but without any realization in this two year period, were excluded. For some of the projects, where there is only a contract with the funder (donor or lender), with a commitment to the amount, but for which funds have not yet been received in the analyzed period. They have been excluded and will be shown in the next biennial report if implemented.

Closer specification of climate relevance and weighting of amounts by climate relevance was almost impossible given the quality of the data provided. In this sense, in order to apply appropriate weighting, such as the OECD DAC Rio Methodology (100%, 40% or 0%), it is necessary to break down projects in depth into activity level, which in this case is impossible.

6.1.2. OECD Statistics on External Development Finance Targeting Environmental Objectives Including the Rio Conventions

The DAC[17] is monitoring external development finance targeting environmental objectives through its Creditor Reporting System (CRS) using “policy markers”: donors are requested to indicate for each development co-operation activity they report to the OECD whether or not it

[17] The OECD Development Assistance Committee is a unique international forum of many of the largest providers of aid, including 30 members. See: http://www.oecd.org/dac/development-assistance-committee/

targets environmental objectives. **The OECD DAC measures and monitors bilateral development finance targeting climate change objectives using two Rio markers.** The following table gives an overview of the support received by the Republic of North Macedonia from the DAC countries in 2016-2017 on a bilateral basis, for which there are recent statistics in the OECD database.

(in US Dollar, Millions)

Score	Principal		Significant		Screened, not targeted		Not screened	
Years	2016	2017	2016	2017	2016	2017	2016	2017
Marker								
Biodiversity	0.11	8.68	3.47	4.99	125.28	150.20	4.36	2.60
Climate Change Mitigation	0.13	8.47	5.57	12.94	123.61	142.86	3.91	2.19
Climate Change Adaptation	0.09	8.69	9.01	14.45	120.17	141.10	3.95	2.22
Desertification	…	8.22	0.02	1.60	102.71	129.35	30.48	27.29
Environment	14.92	33.70	14.34	31.95	100.94	98.48	3.02	2.33

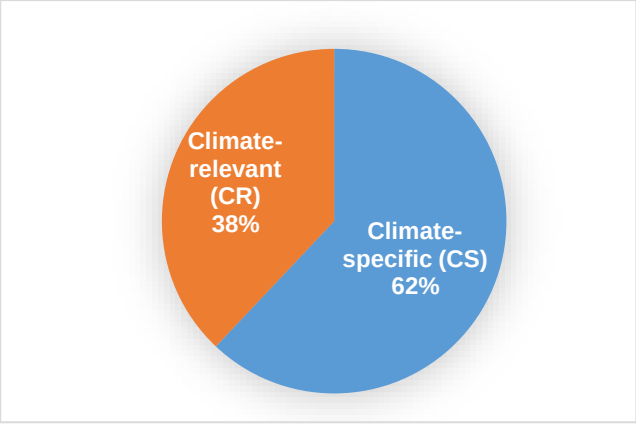
Given that there are no statistics in the OECD database for the period 2018-2019, in the following section we estimate the overall support received from international bilateral and multilateral sources, in total without using rio markers, given the lack of complete data.

6.1.3. Summary of Donor Funds Committed to Climate Change Projects in North Macedonia for the Reporting Period 2018-2019

In the period 2018 and 2019, we registered a total of 38 climate-related projects that are funded with international support. A detailed overview of all projects is given in *Annex I. International financial support received*. The support to the Republic of North Macedonia committed / received during this period is estimated at US $ 25.14 million. Of these, 21 projects are climate specific (CS) projects, accounting for as much as US $ 15.6 million, which is 62% of the total support received. The remaining US $ 9.5 million, or 38%, relates to climate relevant (CR) projects.

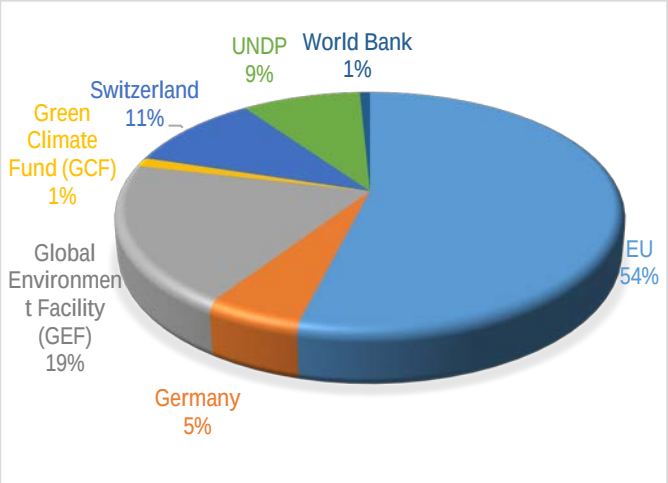
Climate-specific (CS) or Climate-relevant (CR)

Climate relevance	Amount (in US$)
Climate-specific (CS)	15,602,294
Climate-relevant (CR)	9,543,118
Total	**25,145,413**



Regarding the source of funding, most of the support has been received from the European Union. The largest share of 54%, according to the sources, is the support received from IPA cross-border cooperation funds. The second largest support provider is the Global Environment Facility (GEF) of 19%.

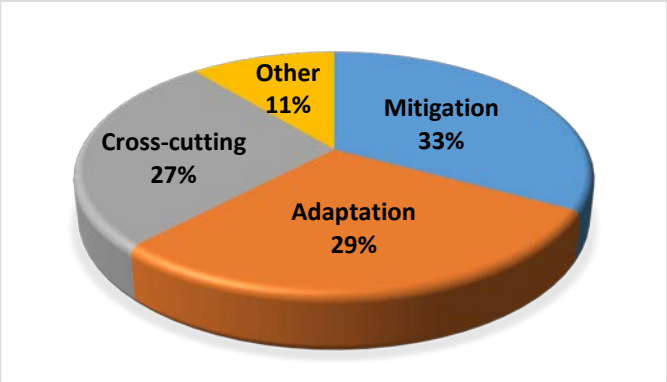
Funder	Amount (in US$)
EU	13,566,181
Germany	1,355,824
Global Environment Facility (GEF)	4,858,638
Green Climate Fund (GCF)	300,000
Switzerland	2,614,360
UNDP	2,258,990
World Bank	191,419
Total	**25,145,413**



Almost the entire amount, or more specifically 98.8% of the support received, is in the form of grants (US $ 24.8 million) and only 1.2% (US $ 0.3 million) is in the form of loans. Here we point out that JSC Power Plants of North Macedonia has contracted two large loans with the German KfW Bank to finance two major energy projects that will greatly contribute to climate change mitigation: i) Project: District Heating of Bitola, Mogila and Novaci - first stage, total budget 46.3 mil. EUR (EUR 39 million from KfW and EUR 7.3 million own funds), and ii) Extension of the Wind Park – Bogdanci, phase II, with a total budget of EUR 21 million. EUR (EUR 18 million from KfW and EUR 3 million own funds). Despite the signed loan agreement, the projects have not yet started in this two-year period we are reporting on, and therefore have not been included. If this report include this committed amount, it would unrealistically overestimate the amount of support received, although under the contract this amount will be relevant and if realized, will be shown in the following report.

According to the purpose of the financing (mitigation, adaptation, cross-cutting), there is almost an equal division between them. One third of the aid received relates to mitigation activities that would have a global impact.

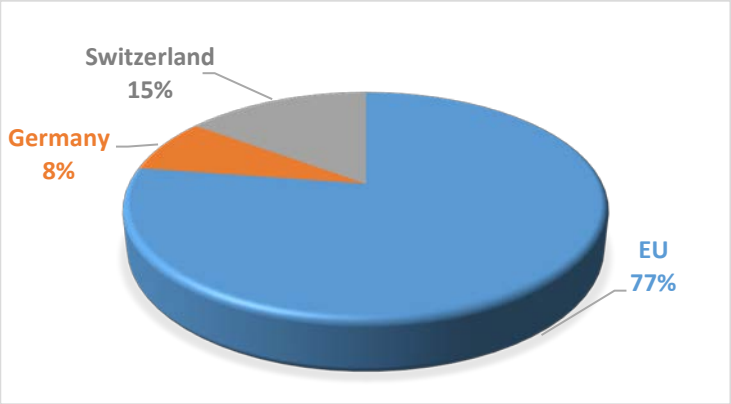
Purpose of funding	Amount (in US$)
Mitigation	8,289,508
Adaptation	7,328,659
Cross-cutting	6,778,944
Other	2,748,302
Total	**25,145,413**



The analysis, in terms of bilateral or multilateral support received in the reporting period 2018 - 2019, shows that the majority is bilateral support, amounting to US $ 17.5 million which is 70%. The remaining 30% is multilateral support of 7.6 million US $.

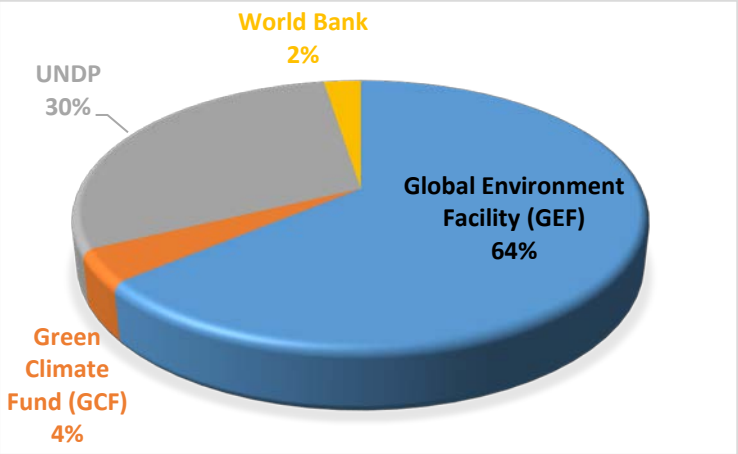
Bilateral support committed / received

Funder	Amount (in US$)
EU	13,566,181
Germany	1,355,824
Switzerland	2,614,360
Total	**17,536,366**



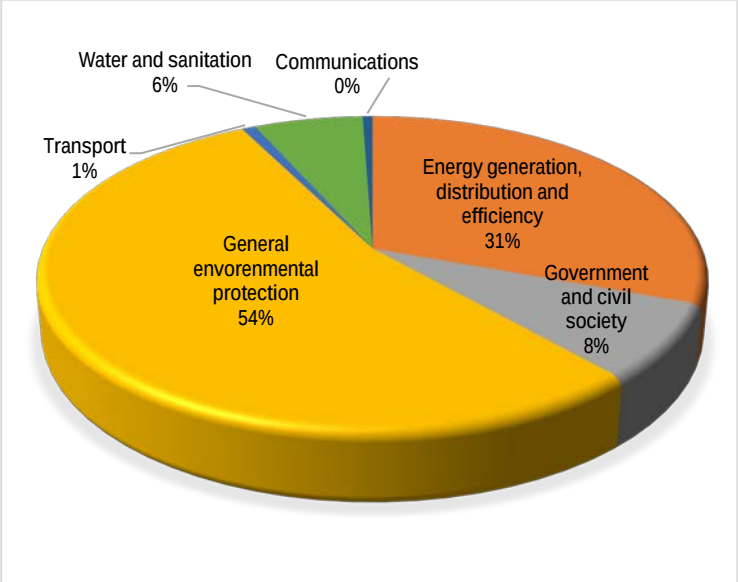
Multilateral support committed / received

Funder	Amount (in US$)
Global Environment Facility (GEF)	4,858,638
Green Climate Fund (GCF)	300,000
UNDP	2,258,990
World Bank	191,419
Total	**7,609,047**



The structure of the distribution of the international support according to the sectors is shown in the following chart. The sector definition used in this analysis is according to the OECD DAC Rio Markers methodology. Analysis of the sector structure shows that most of the international support received is in the sector - General envorenmental protection, followed by the sector Energy generation, distribution and efficiency. In fact, a great deal of emphasis is now being placed on strengthening energy efficiency in the Republic of North Macedonia.

Sector	Amount (in US$)
Communications	138,935
Energy generation, distribution and efficiency	7,685,864
General envorenmental protection	13,604,286
Government and civil society	1,970,255
Transport	191,419
Water and sanitation	1,554,654
Total	**25,145,413**



6.1.4. Non-monetised Support Received

The Republic of North Macedonia also received non-monetary support in the form of capacity building, technical support and technology. There are 14 projects registered in this category. The summary of non-monetary international climate support received for the period 2018-2019 is shown in the following Table.

Table: Non-monetised support received in the Republic of North Macedonia in 2018 – 2019

INFORMATION ABOUT THE PROJECT						PURPOSE OF FUNDING					
Type of funding	Donor	Implementing organization	Project name	Description of the project (Specific purpose of funding)	Implementation period / Start and closing date	Mitigation	Adaptation	Capacity Building	Technical Support	Technology support	General
Technical assistance	EBRD	Ministry of Economy	Review of primary Energy Efficiency Law and Article 7 policy support	Review of primary Energy Efficiency Law and Article 7 policy support	2018/2019				X		
Technical assistance	EBRD	Ministry of Economy	ESCO Project Pipeline preparation in the public sector in th western balkan countries, except Croatia	In oreder to meet requirements as defined in Article 18 of the Directive on energy efficiency for promotion of the enrgy services market, it was developed energy service contract. Additionaly the muinicipalities will engage ESCO companies for public lighting and district heating services trough open tenders.	2019/2020			X	X		
Technical Cooperation	Food and Agriculture Organization (FAO)	Ministry of Agriculture, Forestry and Water Economy	Assessment of agriculture production through NAEZ and LRIMS and scenario development in the Republic of North Macedonia	The main goal of the project TCP/MCD/3602 is to improve agricultural production and increase the adaptive capacity of the Republic of North Macedonia, by establishing National Agro-Ecological Zoning (NAEZ), a Land Resources Information Management System (LRIMS) and Scenario Development to better inform policy at national level, and reduce climate risk through adaptation at local level.	2019		X		X		

Technical assistance	GIZ	Ministry of Economy	Open Regional Fund for South-East Europe - Energy Efficiency	Development of the forth National Energy Efficiency Action Plan	2019/2020		X			X		
Technical assistance	GIZ	Ministry of Economy	Open Regional Fund for South-East Europe - Energy Efficiency	Development of the National Energy and Climate Plan	2019/2020		X			X		
Technical assistance	GIZ	Ministry of Economy	Open Regional Fund for South-East Europe - Energy Efficiency	Development of the Rulebook for MVP and organizing trainings for the municipalities in order to meet requirements as defined in the Directive on energy efficiency	2019/2020					X		
Technical Cooperation	Japan International Cooperation Agency (JICA)	Crisis Management Center Public Enterprise Macedonian Forests Ministry of Agriculture, Forestry and Water Economy	The Project on Capacity Building for Ecosystem Based Disaster Risk Reduction through Sustainable Forest Management in North Macedonia	By Eco-system based Disaster Risk Reduction (Eco-DRR) measures and activities in synergy with sustainable forest management, disaster risk of floods, landslides, soil erosion and forest fire on a long-term basis is reduced in North Macedonia.	2017 - 2022			X		X		
Technical assistance	UK Embassy	Ministry of Economy	Strategy for Energy Developement of the Republic of North Macedonia until 2040	Development of the Strategy for Energy Developement of the Republic of North Macedonia until 2040	2019		X			X		
Technical assistance	UNIDO	Ministry of Economy	Overview and Policy Recommendations for Transposition of Articles 8 and 16 EED	Development of the Energy Efficiency Law	2018/2019					X		
Technical assistance	USAID	Ministry of Economy	USAID Energy Sector Legal Reform Project	Development of the Energy Efficiency Law	2018/2019					X		
Technical assistance	USAID	Ministry of Economy	USAID Energy Sector Legal Reform Project	Development of the Energy Law	2018/2019					X		
Technical assistance	USAID	Ministry of Economy	USAID Energy Sector Legal Reform Project	Development of the Renewables energy sources bylaws	2018/2019					X		
Technical assistance	USAID	Ministry of Economy	USAID Energy Sector Legal Reform Project	Development of the tender procedures for PV and off taker	2019					X		
Technical assistance	USAID	Ministry of Economy	USAID Energy Sector Legal Reform Project	Development of the bylows for NEMO designation	2019					X		

6.2. Domestic Financial Flow for Climate Change Response Actions

6.2.1. Methodology for Tracking the Provision of Own Financial Resources and Technical Support Provided by Themselves

For the monitoring of public climate finance provided from own sources, national and municipal budgets, the methodology of OECD/DAC "Rio Marker definitions for climate change adaptation and climate change mitigation" is appled.

Data collection on the climate markers is based on a scoring system with three values:

- principal objective (2);
- significant objective (1);
- not targeted to the policy objective (0).

An activity can be marked as **"principal"** when the objective (climate change mitigation or climate change adaptation) is explicitly stated as fundamental in the design of, or the motivation for, the activity. Promoting the objective will thus be stated in the activity documentation to be one of the principal reasons for undertaking the activity. In other words, the activity would not have been funded (or designed that way) but for that objective.

An activity can be marked as **"significant"** when the objective (climate change mitigation, climate change adaptation, biodiversity, combating desertification) is explicitly stated but is not the fundamental driver or motivation for undertaking and designing the activity. The activity has other prime objectives but has been formulated or adjusted to help meet the relevant environmental concerns.

The score **"not targeted"** ("0") means that the activity was examined but found not to target the objective in any significant way. For activities that have not been assessed with the Rio markers in mind, the "0" value should not be used, but rather the marker field should be left empty. This way, there is no confusion between activities that do not target the objective (score ="0"), and activities for which the answer is not known (score="null"). This important distinction has implications for statistical presentations of Rio marker data.

For most activities (projects/programmes), the OECD/DAC Rio Markers are used to provide an approximate quantification of domestic climate finance:

- If an activity is marked as "principal" for mitigation or adaptation, 100% of the support is considered and reported as climate finance.
- If an activity is marked as "significant" for mitigation or adaptation, 40% of the support is considered and reported as climate finance. Together with other donors, we consider this percentage to be a reasonable estimate of the average climate contribution by projects that have climate change adaptation or mitigation as a significant objective.

If more than one climate Rio Marker is assigned to an activity, double counting is avoided as follows:

- If an activity has 2 "principal" markers, both are counted for 50%.
- If an activity has 2 "significant" markers, both are counted for 20%.
- If an activity has 1 "principal" and 1 "significant" marker, the "principal" marker is counted for 60% and the "significant" marker for 40%.

6.2.2. Climate Finance of the City of Skopje

6.2.2.1 Climate Change Strategy - Resilient Skopje

The capital of the Republic of North Macedonia, the City of Skopje, has in recent years placed more emphasis on investing in environmental protection, with special emphasis on investments in tackling and adapting to the adverse effects of climate change. For this purpose, each subsequent year allocates an increasing amount of funds in its own budget for the implementation of climate activities. The UNDP Office in Skopje has a particularly important role to play in supporting and identifying and implementing a range of climate activities.

The City of Skopje, in its Environmental Protection Program, recognizes that protecting and enhancing the quality of life of Skopje citizens by implementing sustainable development, helping citizens and institutions prepare for the consequences of climate change and extreme weather conditions and perceptions climate change mitigation activities is one of the most important. Climate change is the biggest global threat of the 21st century. They are reality and inevitability of the way the developed world works. The consequences of climate change are unpredictable, and certainly large, devastating and fatal. Urban areas have the greatest impact, with the highest concentration of people and the biggest contributors to climate change. Only cities that succeed in planning their climate change activities will have a prosperous future. The City of Skopje in cooperation with UNDP has developed a *Climate Change Strategy - Resilient Skopje*. The implementation of the measures foreseen in the Strategy is phased, by years. These activities are aimed at achieving multiple benefits: i) increasing the green fund; ii) air purification; iii) a decrease in summer temperatures; iv) bringing freshness into the space created by the green mass; v) public awareness raising; vi) an aesthetic element.

6.2.3. Assessment of Climate Finance of the City of Skopje

The City of Skopje shows a high level of transparency regarding its financial statements. Quarterly reports are presented both by budget spending function and project / activity level presentation. This is the only case so far, which in this way contributes to a much clearer overview of the money spent on functional item levels, by programs and by projects. Moreover, the Environment Sector Budget 2018 is prepared by activities / projects where each activity / project has a detailed explication and a clear indication of the purpose and purpose of the funds. This is particularly important because the consistent application of Rio's climate finance methodology requires that the activity be pre-designated for climate change (mitigation or adaptation) either as principal or significant to be eligible for climate finance. Promoting the objective is to be stated in the activity documentation to be one of the principal reasons for undertaking the activity.The quarterly reports of the realized budget are publicly available on the City of Skopje website, and the Department of Finance and Budget has also fully met our needs to obtain the necessary climate finance assessment data.

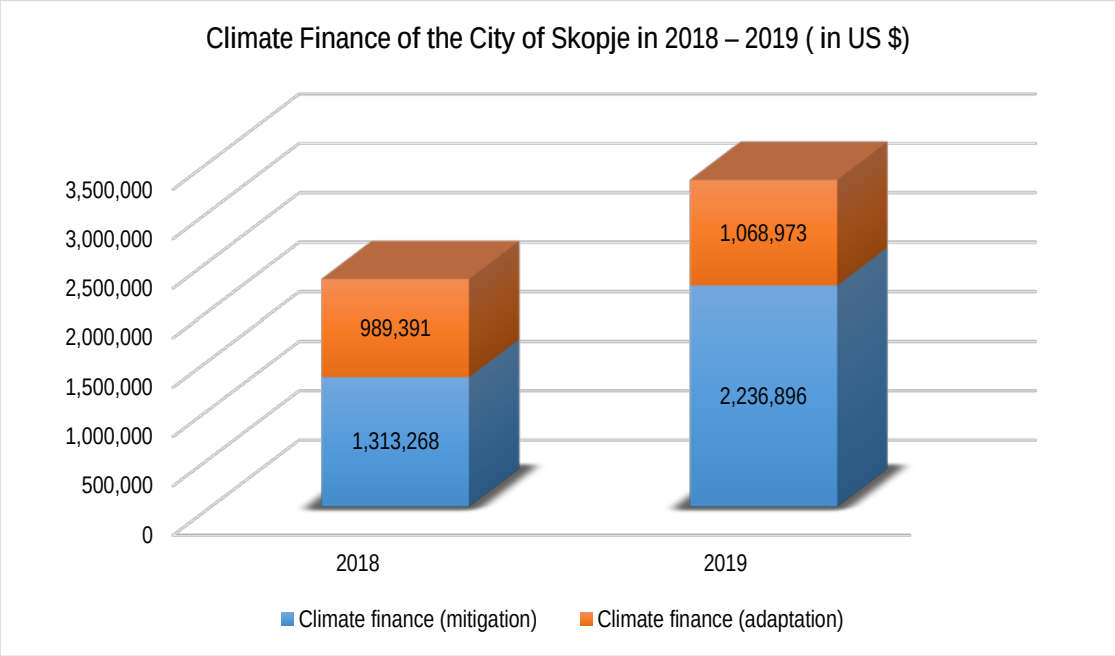
In the analyzed period, the City of Skopje has implemented 37 climate related projects, 17 projects in 2018 and 20 projects in 2019. The total amount of own source funds alocated in these projects was US $ 8,928,109. By applying the Rio methodology the projects were evaluated in terms of climate relevance and weighted accordingly. According to this methodology, the total amount of climate finance of the City of Skopje for 2018 and 2019 is estimated at US $ 5,608,527. Climate finance in 2018 amounted to US $ 2,302,659 and represents 4.65% of total budget expenditure in that year. Whereas, in 2019, climate finance had a significant absolute increase of US $ 1 million, amounting to US $ 3,305,869, representing 5.17% of total spending in its own budget. This high growth, in the scope of

projects and activities, in the $ amount and in the percentage of own budget, indicates the strong commitment of the City of Skopje in the fight against climate change. The following table gives a clear overview of the City of Skopje climate finance for 2018 and 2019, in total, and separately by mitigation and climate change adaptation finance. It is obvious that the amount of climate finance mitigation is higher in both years and is 57% in 2018 and 68% in 2019.

Climate Finance of the City of Skopje in 2018 – 2019 (in US $)

Climate Finance of the City of Skopje	2018	2019	TOTAL
Climate finance (mitigation)	1,313,268	2,236,896	**3,550,164**
Climate finance (adaptation)	989,391	1,068,973	**2,058,363**
TOTAL	**2,302,659**	**3,305,869**	**5,608,527**

The following chart shows the climate finance movement of the City of Skopje for the two consecutive years analyzed.



Most of the climate finance is implemented through two programs: the parks and greenery program and the environmental protection program. The following is an overview of climate finance by individual programs for the two years separately and in total.

Climate Finance of the City of Skopje in 2018 (in US $)

Budget program title	Climate finance	
	Mitigation	Adaptation
Supporting local economic development	966	0
Parks and greenery (capital expenditure)	531,367	487,329
Education (capital expenditure)	331,502	0
Environmental protection	449,433	502,062
TOTAL	**1,313,268**	**989,391**

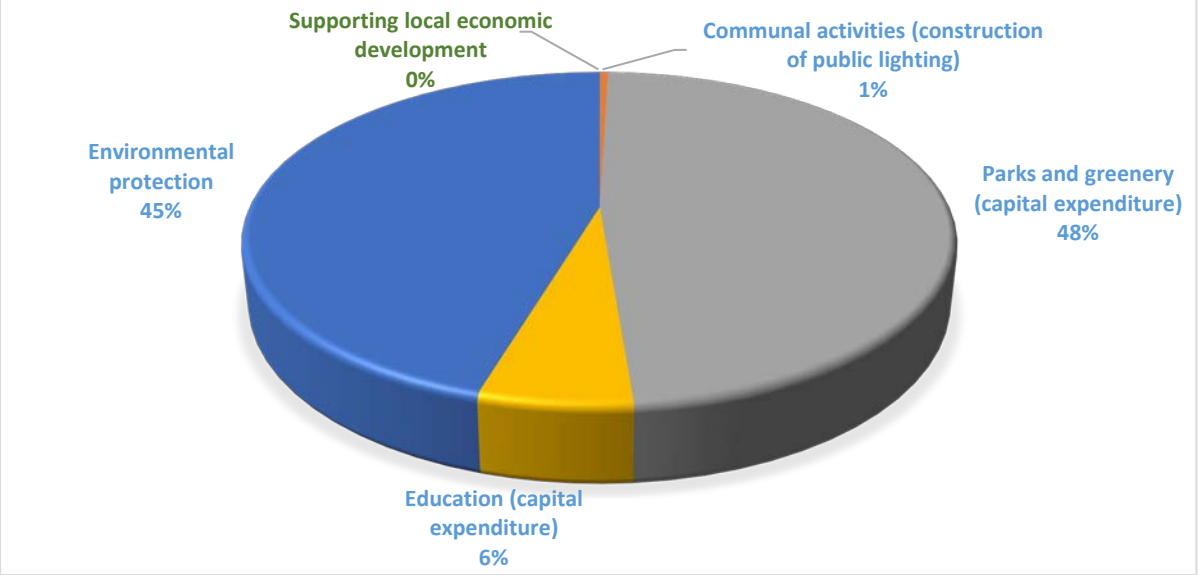
Climate Finance of the City of Skopje in 2019 (in US $)

Budget program title	Climate finance	
	Mitigation	Adaptation
Communal activities (construction of public lighting)	23.860	0
Parks and greenery (capital expenditure)	1.172.657	516.750
Environmental protection	1.040.379	552.223
ВКУПНО	**2.236.896**	**1.068.973**

Climate Finance of the City of Skopje in 2018 – 2019 (in US $)

Budget program title	Climate finance	
	Mitigation	Adaptation
Supporting local economic development	966	0
Communal activities (construction of public lighting)	23.860	0
Parks and greenery (capital expenditure)	1.704.024	1.004.079
Education (capital expenditure)	331.502	0
Environmental protection	1.489.812	1.054.284
ВКУПНО	**3.550.164**	**2.058.363**

Sectoral structure of the climate finance of the City of Skopje for 2018 – 2019



6.2.4. Climate Finance Provided by the National Budget

At the national level, we were unable to provide adequate data to carry out a precise and relevant climate finance assessment.

The Ministry of Environment and Physical Planning provided incomplete information, which could not accurately quantify the amount of own resources it has spent on climate change activities. But in the table in Annex I, it can be seen that this ministry is one of the largest implementers of climate change projects at national level funded by international bilateral and multilateral support.

Annex I. International Financial Support Received

Project name	Description of the project (Specific purpose of funding)	Donor	Implementation period / Start and closing date	Amount USD	Type of funding	Implementing organization
1	**2**	**3**	**4**	**5**	**6**	**7**
Communities Communicating Climate Change (CCCC)	The proposed action is contributing to the specific objective of the call by strengthening the impact and involvement of civil society in decision-making processes and key reforms for support of the eu accession process. Objectives: to establish a nationwide climate change coalition for enhanced involvement in the creation of public opinion, increased influence in policy development to raise awareness of North Macedonian citizens about the importance of tackling climate change issues	EU	2018-2020	468.255	Grant	ECO- Svest, Skopje
Municipal services improvement project	Installing photovoltaic systems solar panels on the muinicipalities public buildings	EU	2018/2019	1.800.000	Grant	Ministry of Finance

Preparation of long-term Strategy and the Law on Climate Action	To carry out the necessary analyses of the current situation and conditions in the Beneficiary country and assessments in preparation of the long-term Strategy and the Law on Climate Action, and in support of the adoption and implementation. To establish a strong and sustainable framework for coordinating climate action by development the national strategic and legal framework for climate action through the long-term Strategy and Law on Climate Action (Law), including the Action Plan for the initial phase of implementation. To establish the monitoring mechanism of GHG emissions in line with the EU Monitoring Mechanism Regulation No 525/2013 and its implementing provisions. To strengthen the administrative capacity in line with EU accession in achieving low carbon competitive economy and climate resilient society/economy. To raise awareness on climate action, support the stakeholders' consultations and facilitate inter-ministerial and inter-sectoral cooperation on the Strategy and Law.	EU	15.02.2019 - 15.08.2020	1.287.780	Grant	Ministry of Environment and Physical Planning
Development of Environmental Monitoring and Information System	The purpose of the Operation is to strengthen capacities for monitoring, data collection, data management and reporting through establishment of national environmental information system and monitoring network structure. The main activities of the project are: • Development of Macedonian National Environmental Information System (MNEIS) • Development of National Environmental Monitoring Network (NEMN) • Strengthening the capacity for implementation of MNES and National Environmental Monitoring Network;	EU	2019 - ongoing	1.615.479	Grant	Ministry of Environment and Physical planning

Supply of appropriate equipment to exchange and manage information and monitoring for water, waste, air management, nature and climate change (Lot 4 - Air Quality Management)	Supply, delivery, unloading, installation, putting into operation, testing and training of equipment to exchange and manage information and monitoring for water, waste, air management and nature for the Ministry of Environment and Physical Planning and National Hydro-meteorological Service - LOT 4 - Air quality management	EU	2017-2018	219.534	Grant	Ministry of Environment and Physical Planning (MoEPP); National Hydro-meteorological Service (HMI)
Supply of appropriate equipment to exchange and manage information and monitoring for water, waste, air management, nature and climate change (Lot 2 - Vehicles)	Supply, delivery, unloading, installation, putting into operation, testing and training of equipment to exchange and manage information and monitoring for water, waste, air management and nature for the Ministry of Environment and Physical Planning and National Hydro-meteorological Service - LOT 2	EU	2016-2018	34.692	Grant	Ministry of Environment and Physical Planning (MoEPP); National Hydro-meteorological Service (HMI)
Integration of Green Transport in Cities	The main project's objective is to design and apply an energy-efficient, regional intelligent transportation system-ITS that will support the efficient realization of both the tourist promotion of the cross-border area, the student's daily transport and the facilitation of residents in their daily transport.	EU	01/07/2019–30/06/2021	692.031	Grant	Munic. of Bitola, Munic. of Resen, Mun. Enterprise of Prespa

Building ENergy Efficiency ImprovemenT: Demonstration for public buildings	Project aims to address the demanding requirement to increase the energy-efficiency of public buildings and stimulate their retrofit towards Nearly Zero Energy Buildings. The main common cross-border challenge of BENEFIT is to tackle the insufficient capacities of public administrations in this area to develop reliable cost-effective energy efficiency action plans for their public buildings' stock, the lack of expertise to apply advanced energy modelling methodologies, the difficulty in the collection of buildings' energy data, the lack of specific methodology to categorize them in typologies and the lack of specific decision-support system for planning energy retrofits.	EU	01/11/2018 – 31/10/2020	631.828	Grant	Municipality of Bitola Public enterprise for urban planning, architectural design and engineering Bitola
Zero-waste-energy-efficient agricultural communities in the Greece- Republic of North Macedonia crossborder area	By implementing pilot installations for bio-gas production, indirect interventions will be made in the segments of environmental protection, better air quality, increased food safety, more efficient use of available resources and renewable energy sources. The increased use of bio-waste as a resource for energy production, at the expense of the use of fossil fuels, will lead to a cleaner and healthier environment.	EU	2018 - 2020	497.789	Grant	Municipality of Dojran

Sustainable management of cross-border water resources	The common need that triggered the need for this project is the protection of the water resources of Axios-Vardar River, the sustainability of the ecosysteme and the ptotection of its habitats. The AQUA-M II Project idea was formulated by the common understanding of all Partners, of the environmental problems that Axios – Vardar River is facing. Axios/Vardar River represents one of the main aquatic resources of the cross-border area of Greece.These sensors will be establish in the river's water nearby their sewage treatment plants. This equipment will monitor and provide essential data for water quality in a continuous way (24h/7d) and in real time. It will be able to detect abnormalities in water physicochemical parameters and toxicity levels even in very low consentrations. More over the Laboratory Equipment for the PP3 can analyse water samples from the river and detect the majority of pollutants (like pesticites, pharmaceuticals, organic and inorganic pollutants).	EU	2018-2020	755.562	Grant	Municipality of Gevgelija Public Communal Enterprise of Gevgelija Aristotle
Energy Efficiency in the cross border area as an indicative factor for environmental policy	The main objective of the project is to highlight the importance of the energy efficiency as a factor of the protection of the environment, in two axis; 1st: Public spaces, 2nd: Private spaces. Each axis is supported with the following outputs that improve the energy efficiency factor of the cross border area, with the decrease of GHG (in precise tons of CO2/year) and decrease of annual consumption (in KWh/year)	EU	25/05/2018 - 24/05/2020	475.208	Grant	Municipality of Negotino, Secondary Municipal School “St.Kiril and Metodij”-Negotino

Agrowaste supply chains for sustainable growth	Agricultural residues such as straw, bank canes and trees pruning constitute a significant load of green waste in rural areas from both sides of the borders. Those wastes are poorly managed causing severe environmental impacts. At the same time local authorities use expensive fossil fuel for space heating of public buildings, and due to the current economic recession, very often the amount of heat generated cannot satisfy the real needs of the building users. The sustainable management of the green waste can offer a real solution in both of the above problems.	EU	29/05/2018-28/05/2020	315.077	Grant	Municipality of Novaci , National Extension Agency
Development of an Action Plan for the Management of Bio-wastes at the Cross-Border Region	The overall objective of LESS-WASTE-II is waste prevention through the joint development and implementation of actions for the better management of bio-wastes in the cross-border area. The project directly contributes to the Programme's objective for the sustainable management of waste, which contributes to: the conservation and protection of the natural environment, the improvement of the quality of life in the cooperation area and the sustainable development of the area in general. The project' s activities relate directly to the application of relevant European policies in the field of waste management, specifically waste prevention with the aim to minimise waste going to landfill and management of food waste, as they are adopted in the official Regional and Local Waste Management Plans of the areas involved	EU	2018-2020	275.583	Grant	Municipality of Resen, Public Communal Enterprise "Proleter"
Evaluating Energy Efficiency Measurements	The overall objective of the project "3Em" is implementation of energy efficiency measures in the public buildings run by the local government units in the border region of both countries. The overall objective is closely linked and directly contributes towards Priority Axis 2. Protection of Environment-Transportation, the Programme's Specific objective 2.1 Upgrade public infrastructure to improve road travel time, safe border crossing and promote energy efficiency towards green transport.	EU	22.06.2018 – 21.02.2020	798.545	Grant	Municipality of Valandovo

Zletovica Project: Electricity Production and Irrigation Components	Construction of small hydroelectric power plants.The Zletovica project will contribute to the social and economic development in the region by providing new employment and reducing poverty. Irrigation will encourage agricultural development through increased product quantity and quality. The production of hydroelectricity will increase renewable energy supply, so reducing CO2 emission of the country, and contributing to actions mitigating climate change.	EU	2015-ongoing	1.180.000	Grant	Public Enterprise HS Zletovica
Symbiotic Networks of Bio-Waste Sustainable Management	The project's main objective is to set up an integrated, sustainable, bio-waste management and trading scheme between the partner regions of Western Macedonia in Greece (former Prefecture of Florina) and the municipality areas of Bitola and Novaci in the former Yugoslav Republic of Macedonia, following the Industrial Symbiosis concept.	EU	09/05/2018-08/05/2020	188.162	Grant	Public Enterprise KOMUNALEC Bitola
EU Floods Recovery Programme	The goal of the EU Floods Recovery Programme was to assist the country's recovery efforts in the aftermath of the floods that occurred in early 2015 by reconstructing damaged transport and water/flood control infrastructure. The "building back better" approach was applied to maximize resilience to future floods and mitigate the risk of floods in the most sensitive regions throughout the country.	EU	2018	2.330.656	Grant	UNDP
Open Regional Fund for South-East Europe - Energy Efficiency	Strengthening regional stakeholders' cooperation in the area of energy and climate, hence supporting the process of achieving the national climate and energy efficiency targets in the Western Balkan Countries	Germany	04.2017 - 03.2020	400.000	Grant	GIZ (with Ministry of Economy, Cabinet of the DPM, Energy Agency, City of Skopje and Municipalities)
Adaptation to Climate Change through Transboundary Flood Risk Management in the Western Balkans	Strenghtening transboundary flood risk management with regard to climate change in the Drin Basin. Project outputs: Output 1: Implementation of the EU Floods Directive. Output 2: Partner institutions have the tools, capacity and processes for early warning. Output 3: Capacities of the partner institutions are strengthened.	Germany	10.2018 - 09.2021	460.000	Grant	GIZ and Ministry of Environment and Physical Planning (MOEPP); Hydrometeorological Service;

Consultancy services for post-construction avian & bat monitoring for the wind park Bogdanci	Consultancy services for post-construction avian & bat monitoring for the wind park Bogdanci	Germany	2017-2019	198.218	Grant	JSC ESM
Consultancy services for Preparatory Phase Bogdanci	Updating an environmental impact assessment study and securing other consulting services for an expansion of the Bogdanci wind farm	Germany	2019-2020	188.959	Grant	JSC ESM
District Heating of Bitola, Mogila and Novaci - first stage	Heating system by using the heating energy from REK Bitola. The benefits are reduction of emissions from combustion of wood, household and coal fuel in small domestic stoves as well as in furnaces of public and commercial buildings, SOx, NOx, CO, etc. ; Reduction of CO2 emissions at the level of R. Macedonia; Improving the quality of ambient air; Improving the quality of the agricultural arable land; etc.	Germany	2017/2022	108.647	Loan	JSC ESM
Reduction of the CO2 emission in the Municipal Primary School Goce Delcev in Bosilovo by replacing fossil fuel with biomass	Reduction of the greenhouse gases in in the school building in the village of Bosilovo by instaling heating stations using biomass (pellet) and Training to raise the public awareness on greater usage of the renewable energy sources.	Global Environment Facility (GEF)	01.01.2017 - 31.12.2017	28.750	Grant	Association CEOR, Bosilovo
Improving of the energy efficiency of Municipality of Mavrovo and Rostushe	The aim of the project is to create conditions for reducing climate change in the rural municipalities of Polog – Municipality of Mavrovo and Rostushe through improved energy efficiency in street lighting, awareness raising and capacity building of stakeholders involved in issues related to energy efficiency	Global Environment Facility (GEF)	01.01.2017 - 31.03.2018	49.440	Grant	Association for Local and rural Development ZLRR, Tetovo

Promoting the protection of plant diversity, energy efficiency and education in the Botanical Garden at the Faculty of Natural Sciences and Mathematics	The project objective: the reconstruction of the stagnated Botanical garden in Skopje (established in 1948) within the Department of Botany at the Institute of Biology, integral to the Faculty of Mathematics and Natural Sciences. The project provided adequate conditions for the survival and further development of the subtropical domestic autochthonous plant species that have been conserved for years and improved the thermal insulation and reduce the losses of thermal energy. Forecasted reduction in emissions of greenhouse gases by at least 1.709 tones of CO2/annually and reduced heating costs for app 800 USD/annually	Global Environment Facility (GEF)	01.09.2017 - 01.03.2019	49.866	Grant	Macedonian Biological Society /Makedonsko Biolosko Drustvo MBD, Skopje
Catalyzing market transformation for industrial energy efficiency and accelerate investments in best available practices and technologies in the Former Yugoslav Republic of Macedonia	The project contributes to accelerating the transformation of the Macedonian market for industrial energy efficiency towards the increased use of, and demand for, best available practices and technologies such as energy management systems in line with ISO 50001, and a greater offer in terms of related consultancy services. During the project lifetime, annual GHG emissions reductions of 133,000 tonnes of CO2eq are anticipated.	Global Environment Facility (GEF)	31.12.2014 - 31.01.2019	560.042	Grant	Ministry of Environment and Physical Planning, Ministry of Economy, Energy Agency of the Republic of Macedonia
CO2 reduction as a result of the replacement of the street lighting	This project offers new technology for the generation and storage of low-carbon energy, supplying of economical street lamps that through their use reduces greenhouse gases, generate new revenue through energy savings and dramatically reduces maintenance costs.	Global Environment Facility (GEF)	2017-2018	26.540	Grant	Municipality of Vasilevo

Stabilizing GHG Emissions from Road Transport through doubling of Global Vehicle Fuel Economy	To support the development of national fuel economy policies in 20 countries, 6 countries through GEF-5 STAR Allocations and 14 without GEF funding, using existing tools developed with GEF-4 support (examples are the fuel economy baseline calculation methodology and online GFEI toolkit). In addition, to support coordination of the 20 country projects at the regional level to ensure that results are disseminated to other countries within the region. This will result in reduced vehicle fleet CO2 emissions in these 20 countries inline with the Global Fuel Economy Initiative's target of a 50% improvement of the overall global fleet fuel economy by 2050.	Global Environment Facility (GEF)	May 2015 - June 2018	212.000	Grant	REC
Strengthening Institutional and Technical Macedonian Capacities to Enhance Transparency in the Framework of the Paris Agreement	To meet enhanced transparency requirements as defined in Article 13 of the Paris Agreement by strengthening institutional and technical capacity for measuring and reporting on emissions, mitigation and adaptation activities, and support received.	Global Environment Facility (GEF)	12.06.2019 - 15.04.2022	2.730.000	Grant	UNDP and Ministry of Environment and Physical Planning (MOEPP)
Fourth National Communication and Third Biennial Update Report on Climate Change under the UNFCCC	Assist the Macedonian Government to prepare the Fourth National Communication and the Third Biennial Update Report on Climate Change for the fulfilment of its obligations towards the United Nations Framework Convention on Climate Change (UNFCCC)	Global Environment Facility (GEF)	11.05.2018 -	1.202.000	Grant	United Nations Development Programme
Support for the management of an effective national coordinative mechanism regarding the Green Climate Fund	Establishing and strengthening national designated authorities or focal points. The project aim was to support the country in developing its capacities to engage with the GCF with focus on strengthening the institutional capacities of the NDA/ NFP to effectively fulfil its roles and responsibilities related with the Fund and to start discussions with national stakeholders to engage them into the process and to start preparation of Country program.	Green Climate Fund (GCF)	31.07.2018-30.10.2019	300.000	Grant	FAO and the Cabinet of the Deputy President of the Government for economic affairs

Improvement of the Solid Waste Management Services in the Polog Region, Phase 1	The first phase of the project will support preparation of local and regional waste management plans, preparation of designs and tender documents for short term measures and setting up the organisational and financial scheme for regional solid waste management services. The overall objective of the project (phase 1 and 2) is to contribute to the protection of human health and environment, as well as to the responsible utilisation of natural resources in the Polog region.	Switzerland	2017 - 2019	1.090.909	Grant	Center for Development of the Polog Planning Region
Improving Resilience to Floods in the Polog Region	The project's ambitious goal is to instigate transformational change in managing flood risk in the region, accelerating the shift from purely reactive responses to floods to integrated systems to manage hazards, vulnerabilities and exposure of communities and assets to prevent/mitigate losses and alleviate the impact of future floods.	Switzerland	2018-2019	1.523.451	Grant	Ministry for Environment and Physical Planning
Resilient Skopje: Scaling-up for Sustainability, Innovation and Climate Change	UNDP assists the City of Skopje to become more resilient to climate change and other environmental threats, and to work with the public administration to help it design and deliver better services for its citizens. The project will pursue these aims by assisting the City of Skopje in implementing a set of priority measures identified in the Climate Change Strategy – Resilient Skopje and the Skopje Innovation Framework.	UNDP	2018-2020	1.020.369	Grant	City of Skopje
Restoration of Strumica River Basin	The overall objective of this project is to introduce a set of comprehensive measures that will help restore Strumica River Basin's socio-ecological functions and its overall resilience against the complex pressures resulting from human activities and global changes. Aligned with the key principles of the EU Water Framework and Floods Directives and the underlying concept of Integrated Water Resources Management, this project aims at addressing the main types of pressures in the Basin (point source and diffuse pollution, as well as hydro-morphological modifications), maximizing at the same time the possibilities for mitigating flooding risk.	UNDP	2018-2019	867.514	Grant	Ministry for Environment and Physical Planning

Reducing Flood Risk in Kumanovo and Lipkovo Municipalities	UNDP supports efforts to significantly reduce flood risk in communities along Lipkovska River in the City of Kumanovo and central parts of Lipkovo.	UNDP	2018	232.172	Grant	Ministry for Environment and Physical Planning
ICT for Urban Resilience	The risk of disaster are increasing throughout the world as more people than ever before live in urban areas. At the same time, new technologies are revolutionizing social behaviour and entire industries. Unfortunately, city planning and development have given little consideration to the consequences of earthquakes, hydro-meteorological risks and other disasters. The main objective of this project is to help build greater disaster and climate resilience in Skopje by increasing institutional capacity, mobilizing knowledge and transferring appropriate best-practice innovation technologies.	UNDP	2018-2019	138.935	Grant	UNDP
Technical assistance for preparation of climate resilience design guidelines for the public enterprise for state roads	These guidelines and the associated methodology statement have been produced for PESR to enable the organisation to better understand the impacts of climate related events on North Macedonia's road network, the appropriate courses of action that are available and the priorities in terms of investment. The guidelines have been designed as a series of linked documents, each of which is targeted at a different audience within PESR and North Macedonia's road sector organisations. The main purpose of these Guidelines is through their application PESR to advance the overall design process at all stages of the project management. The resilient designs of the new and the roads to be reconstructed, need to be informed by the climate effects as well as be adopted to the international best practices.	World Bank	19.10.2018 - 15.08.2019	191.419	Loan	Public Enterprise for State Roads