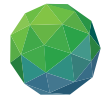




Food and Agriculture
Organization of the
United Nations



Government of the Republic of North Macedonia



GREEN
CLIMATE
FUND

Open Call for Project Ideas

for Green Climate Fund financial support
in the Republic of North Macedonia
(2019)

Open Call for Project Ideas for Green Climate Fund financial support in the Republic of North Macedonia (2019)

The Government of the Republic of North Macedonia represented by the Cabinet of the Deputy President of the Government in charge of Economic Affairs as a National Designated Authority (NDA) for the Green Climate Fund announces Open call for Submitting Project Ideas that address and respond to the challenge of climate change.

The Open Call aims to target Project Ideas with climate mitigation/adaption potential to be considered on a national level for submission to the Green Climate Fund (GCF) for financing.

1. Basic information on the Green Climate Fund

The Green Climate Fund (GCF) is a new global fund created by the United Nations Framework Convention on Climate Change (UNFCCC) that supports the efforts of developing countries to respond to the challenge of climate change (<https://www.greenclimate.fund/home>). The main principles of the GCF, as a global fund, is to promote a paradigm shift to low-emission and climate-resilient development.

GCF was created by 194 countries that are parties to the UNFCCC in 2010, as part of the Convention's Financial Mechanism. The Fund, guided by the Convention's principles and provisions, aims to equally split its resources between mitigation and adaptation measures. The total committed GCF financing currently is USD 10.3 billion and the mobilization of resources is ongoing.

The GCF finances low-emission (mitigation) and climate-resilient (adaptation) projects and programmes developed by the public and private sectors to contribute to countries' climate change priorities. Cross-cutting projects that deliver co-benefits in terms of both mitigation and adaptation are also eligible for funding by the GCF. Each proposed project or programme will have to demonstrate its climate rationale in terms of mitigation, adaptation or both and should identify to which defined strategic GCF impact areas it contributes (for an individual project or programme, several impact areas may apply).

The GCF identifies eight strategic impact areas where targeted GCF investment would have a greater impact; the so called "results areas" are a reference for engaging with the Fund and in this sense, according to country priorities, the project proposals should follow and align with the GCF strategic impact areas (presented in Figure 1).

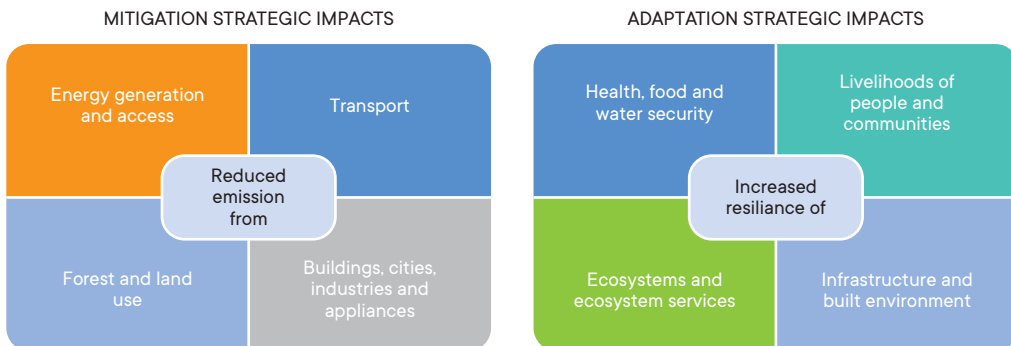


Figure 1: GCF Strategic impact areas

GCF offers grants, concession loans, guarantees and equity for funding projects, which range from micro (USD < 10 million) to large (USD > 250 million) in their size. Additionally, resources in the form of grants are available to support countries to prepare and improve their engagement with the Green Climate Fund, as well as to prepare project proposals.

Country ownership is a core principle of the GCF; in this sense, the Fund promotes the importance of ensuring a country-driven approach, strengthening the effective involvement of relevant institutions and stakeholders at national level.

2. Aim of the Open Call for Project Idea

The aim of this call is to encourage and to support all interested stakeholders to develop their project ideas with mitigation/adaptation (or both) potentials, as a first step in the project proposal development process.

3. Project idea endorsement

The project ideas submitted to the National Designated Authority (NDA) will be subject to eligibility and prioritization procedure in order to determine the possibility for the project idea to be included in the GCF Country Work Programme. The project idea needs to be in line with the mitigation and adaptation priority sectors, as described in the National strategic documents (Third National Communication on climate change - for adaptation priorities and the Second Biannual update Report on climate change - for mitigation priorities), as well as with the GCF strategic impact areas. All relevant documents are listed on the official web page: www.greendevopment.mk.

4. National priority sectors/mitigation and adaptation actions

The project idea should propose actions that belong to at least one priority sector of the national priority sectors with high mitigation/adaptation potential as presented in the following Table 1:

Table 1. National priority sectors with high mitigation/adaptation potential

Priority Sectors with high mitigation potential	Priority Sectors with high adaptation potential
Energy - Energy Industries	Water Resources
Energy - Manufacturing and Construction	
Energy - Transport	
Agriculture and Forestry and other land use (AFOLU) Livestock/Forestry/Land Use	Agriculture – General/viticulture/ livestock Production
Waste - Solid Waste Disposal	Biodiversity
	Human health
	Cultural heritage

The list of priority actions (mitigation and adaptation) is presented in ANNEX 2 of this Open Call for Project Ideas.

5. Eligibility Assessment of Project Ideas

Each project idea should fulfill all of these eligibility criteria:

- those of the national climate policy and strategies;
- national development indicators, enabling policy and institutional frameworks;
- GCF strategic result areas;
- and to describe how resilience/mitigation to climate change equally impacts men and women or ensures that woman equally benefit from project activities

Only project ideas that have passed the administrative check and eligibility assessment will be confirmed and further prioritized using the prioritization criteria established, after which the applicant will be notified. More information on the prioritization criteria is available in the Guidelines for applicants and in the national prioritization mechanism available at www.greendevlopment.mk/

6. Strategic Prioritization of Project Ideas

The following criteria will be used during strategic prioritization for all eligible project ideas:

- (coherence in describing the problem and climate rationale, project objectives and expected results);
- implementing entities (level of experience and skills of the implementing entities/ partners and similar projects implemented);
- duration (the timeframe indicating the proposed activities' duration);
- (Current status of the project idea);
- Number of EU benchmarks that the project is in line with);
- number of Sustainable Development Goals impacted or triggered by project implementation);
- coherence and alignment of the project objectives with priorities addressed already in the national climate policy and strategies)
- – (preliminary estimation of mitigation/adaptation potential as well as gender equity and impact potential to women and men separately as well as to vulnerable groups)

For detailed information on the prioritization criteria for project ideas, please refer to the Guidelines for applicants available at www.greendevopment.mk.

All eligible and prioritized project ideas will be confirmed and included in North Macedonia's GCF Country Work Programme. Applicants of confirmed Project ideas will be encouraged to contact Accredited Entities for further development of their Project idea into GCF Concept Notes/Full Project proposal in consultation and close cooperation with the NDA.

7. Who can apply?

This call is open for all interested stakeholders including academic institutions, national/local authorities, public and private companies, NGO and other legal persons, so, any legal entity is encouraged to develop a project idea.

8. How to apply?

Applicants should complete the Project idea template in English language by using the electronic template accessible at www.greendevopment.mk. For reference by applicants, the templates are also enclosed in ANNEX 1 to this Call but the project idea may be submitted electronically through the website by registered users only.

Before starting to develop their project idea, each applicant should register at www.greendevopment.mk/login, in order to access the project idea templates. The Project idea template should be completed with all required information, data and enclosed documents (e.g., map of project location; list with employees to be dedicated to project implementation and reference list with relevant data on previous similar experience, etc.). For detailed guidelines to complete the Project Idea template, please refer to the Guidebook for developing GCF project proposals, available at www.greendevopment.mk. Any other information about the work of the Green Climate Fund and the country mechanisms for working with the Fund are also available at the NDA website: www.greendevopment.mk.

NOTE: Fully completed Project idea template should not exceed a maximum of 5 pages, excluding annexes and, duly completed and signed, should be submitted electronically.

Any supporting document that needs to be submitted together with the Project idea template should be uploaded at the final stage of completing the online Application Form.

Applicants can opt to submit proposals for any of the three development stages: Project Idea, Concept Note and Full Project proposal; the templates of these documents are available on the NDA website.

In cases when the NDA receives a Concept Note or a Full Project Proposal (in GCF template) from a national institution or an International Accredited Entity (in response to a call for proposal or spontaneous submission), the NDA will conduct all the quality assurance phases according to this procedure, regardless of how advanced the development of the proposal is. Therefore, applicants must complete the Project Idea template online first, indicating the project's development status (Idea, Concept Note or Full Proposal), and upon receiving an endorsement letter from the NDA, applicants will be encouraged to submit their Concept Note or Project Idea developed accordingly.

9. Deadline for Submission of Project Ideas

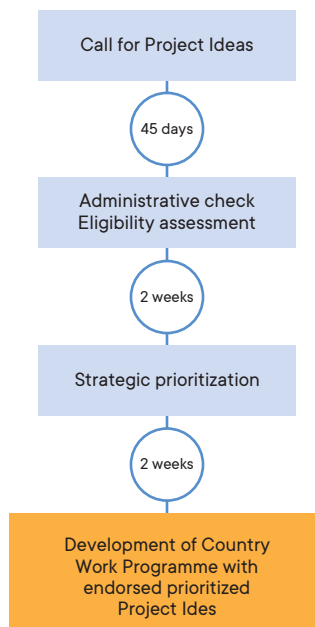
Applicants may submit the fully completed Project Idea Note not later than 15th of December 2019 (16:00 h).

Detailed guidelines on how to complete the Project Idea Template and other information regarding this call for project idea or the work of the Green Climate Fund are available at the NDA website: www.greendevlopment.mk.

All applicants will be informed if their project idea has been confirmed as eligible and if it becomes part of GCF Country Work Programme or, if the project idea has been rejected, they will receive comments for improvement. The GCF Country Work Programme will be a publicly available document.

10. Indicative Timetable for Assessing Project Ideas

The indicative timeframe for submission and assessment/prioritization of the project ideas is presented in the following flowchart.



11. Developing and Submitting a Concept Note/Full Project proposal to the GCF for Financial Support

Applicants should be aware that a partnership with an Accredited Entity (AE) must be established before submitting a Concept Note/Full Project proposal to the NDA; however, in cases where the applicant has not identified a suitable AE to work with, after their project idea has been confirmed to be eligible, the NDA will help project applicants identify the most appropriate AE according to the existing list of GCF accredited entities and their respective capacities; these AEs will develop partnership with the project applicant and the NDA, and will provide guidance on the GCF project cycle in order to develop the project idea into concept note/full project proposal.

The term 'Accredited' means that these entities went through the GCF accreditation process and meet the standards of the Fund (public, private or non-governmental institutions). Full list of accredited entities is available at the GCF webpage (<https://www.greenclimate.fund/how-we-work/tools/entity-directory>).

When the NDA has confirmed the eligibility of a Project Idea, the AE will develop and submit Concept notes/Full Project proposals to the GCF, in collaboration with national institutions/applicants. The AE should coordinate closely with the NDA on their project pipeline, endorsement of funding proposals and project implementation. To draft their Concept notes/Full project proposals, applicants should use the GCF templates (www.greenclimate.fund) that could be found also at the NDA website: www.greendevopment.mk.

The Concept Note developed by the Accredited Entity and applicants will be submitted to the NDA for **technical assessment** and should be accompanied by the following supporting documents:

1. Map indicating the location of the project/programme,
2. Diagram to describe the theory of change,
3. Economic and financial model with key assumptions and potential stressed scenarios,
4. Pre-feasibility study,
5. Evaluation report of previous projects (applicable to projects replicating previous investments),
6. Results of environmental and social risk screening analysis

Technical assessment of Concept Note/Full Project proposals will be performed by using the following key criteria:

- **Estimated mitigation/adaptation impacts, level of residual risks associated with the project and adequate mitigation measures defined to meet the Environmental and Social Standards (ESS) requirements**
- **Initiate policy changes, new strategic documents to be developed or new regulation, project opportunities for replication in several regions in RNM and degree of share of lessons learned and experiences gained from the project, degree of innovative elements and concept within the project activities**
- **Expected positive environmental, social and health, and economic co-benefits, including gender-sensitive development impact (e.g., type of improvements in environmental media and sectors, total number of jobs created (direct and in direct) by implementing the project, etc.) Relevance to country needs - % of socio-economic population to benefit from the project, specified actions for**

strengthening institutional and implementation capacity in RNM

- **Coherence and alignment of the project objectives with priorities addressed already in the national climate policy, regulation, legislation and strategies, project alignment with national development agenda, stakeholder engagement.**
- **Possibilities to combine various sources of funding, level of best practice technologies planned to be applied in the project and main benefits to be achieved.**

Further information on these criteria can be found at www.greendevopment.mk.

The No-objection procedure check is the final step of quality assurance, in order for the applicant to obtain **No-objection letter** from the NDA for submission to the GCF. The No-objection procedure is the key tool to ensure full ownership of the country with regards to the proposals, providing a view of the proposed investment's alignment with country priorities.

Quality assurance covers questions and evidence if the proposal received technical clearance, if all comments received during technical assessment have been addressed in the proposal, whether the AE presented the proposal to national authorities, whether the proposal is in the Country Work Programme, whether consultations with targeted stakeholders have been organized, etc..

If the proposal is endorsed by the Government of the Republic of North Macedonia, the NDA will issue the no-objection letter for the proposal accordingly and the Full Project proposal could be submitted to GCF for evaluation in order to receive financial support. Applicants must be aware that Funding Proposals not accompanied by the no-objection letter, duly signed by the NDA of the Republic of North Macedonia, will not be considered by the GCF Secretariat.

12. Q&A

In order to respond to any question arising during these phases of project development (project idea/concept note/full project proposal), regarding the preparation and fulfillment of application templates, deadlines, etc, please, refer to the Q&A section on NDA web-site: www.greendevopment.mk, or contact the NDA responsible persons. The Q&A section will be updated regularly as applicant questions arrive.

Annex 1: Project Idea Template

Project Idea

Title:

Project Idea Note

This project idea template may be used by Applicants that choose to submit a Project idea note for the consideration by the National Designated Authority, or Applicants interested in responding to a specific call for proposals launched by the NDA.

This Project idea will be reviewed by the NDA by using a set of already established eligibility criteria and only eligible project ideas will be endorsed and included as part of the Country Work Programme. Applicants will be sent a confirmation letter by the NDA to confirm either the endorsement of the idea, or to inform the applicant on the rejection of the project idea and to provide recommendations for improvement.

Applicants of endorsed Project ideas will be encouraged to further develop the idea into Concept Note according to GCF templates and in close consultation with NDA representatives. At the Concept note stage, an Accredited Entity to support the development and implementation of project proposals should be identified according to the area of activity and accreditation criteria of the particular accredited entity, including project size this entity is accredited to implement, area/sector of expertise and Category of Environmental and Social risk the entity is able to manage.

Applicants should use the electronic version of the Project Idea Note and they could fill it out online (Online application form) by using their own access password. After the registration process, the user will see a panel with a predefined question form (Project Idea Note). Following the submission of the Project Idea Note, the Applicant will receive an e-mail confirming that the Project Idea Note has been successfully submitted.

Detailed guidelines on how to complete this template and other information on the activity of the Green Climate Fund are available at: www.greendevdevelopment.mk

Project general information	
Project title:	
Project or Programme	<input type="checkbox"/> Project <input type="checkbox"/> Programme
Project Duration (<i>months</i>):	
Geographic Location of Project Activities (<i>please, enclose the map in the Annex</i>):	
Implementation Entity/ies (<i>title, type of organization, address, contact persons</i>) Please, provide in an Annex a List with employees dedicated to the project implementation (<i>disaggregate by sex and education</i>) for each entity	Title: Type of organization: Address: Contact person: Phone/E-mail address:
Previous experience in implementing similar projects (<i>similar complexity, costs and duration</i>)	<i>Please, list at least two finalized similar projects providing information on project costs, aim of the projects, main beneficiary and main results. You can provide Reference list as an Annex with more relevant data on previous similar experience</i>
Project Status:	<input type="checkbox"/> Full Project proposal <input type="checkbox"/> Concept note <input type="checkbox"/> Project idea note
Project climate focus and results areas	
Focus area of the project:	<input type="checkbox"/> Mitigation <input type="checkbox"/> Adaptation <input type="checkbox"/> Cross-cutting

<p>Green Climate Fund strategic results areas</p> <p><i>(Which of the following targeted GCF results areas does the proposed project address?)</i></p> <p><i>Please, mark the most relevant ones</i></p>	<p>Mitigation</p> <p>By reducing greenhouse gas emissions:</p> <p><input type="checkbox"/> Energy access and power generation</p> <p><i>(E.g. access to on-grid, micro-grid or off-grid, where power is generated by renewable energy sources, i.e. solar, wind, geothermal waters, etc.)</i></p> <p><input type="checkbox"/> Low emission transport</p> <p><i>(E.g. high-speed rail, rapid bus system, etc.)</i></p> <p><input type="checkbox"/> Buildings, cities and industries and appliances</p> <p><i>(E.g. new and retrofitted energy-efficient buildings, energy-efficient equipment for companies and supply chain management, etc.)</i></p> <p><input type="checkbox"/> Forestry and land use</p> <p><i>(E.g. forest conservation and management, agricultural irrigation, water treatment and management, etc.)</i></p> <p><u>Adaptation to climate change</u></p> <p>By increasing resilience in the following spheres:</p> <p><input type="checkbox"/> Most vulnerable people and communities</p> <p><i>(E.g. mitigation of adverse risks associated with climate change, developing early warning systems, developing insurance services system, etc.)</i></p> <p><input type="checkbox"/> Health and well-being and food and water security</p> <p><i>(E.g. providing clean drinking water to population, implementing water-saving technologies, etc.)</i></p> <p><input type="checkbox"/> Infrastructure and built environment</p> <p><i>(E.g. mudflow and avalanche protection infrastructures, air-conditioning systems, resilient road networks, etc.)</i></p> <p><input type="checkbox"/> Ecosystem and ecosystem services</p> <p><i>(E.g. ecosystem conservation and management, ecotourism, etc.)</i></p>
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Project description (max. 3 pages)	
Project goal:	
Project objectives	<i>(if possible, please define specific objectives related to gender and minority issues and climate change)</i>
Main project beneficiary (direct and indirect) disaggregated by type of vulnerability	
Brief project justification (coherence and alignment with the country's national climate priorities and development strategies as well as national SDGs)	
Briefly describe the Mitigation/Adaptation problem the proposal intends to address	<i>(please, specify the issues relevant for gender and vulnerable groups)</i>
List proposed project activities to address the above problems and identified barriers leading to the expected results	(Please, mention if the proposed activities/ processes or technologies are innovative. Also, explain how women, CSOs, academia, business and other stakeholders will be included during the project activities implementation)
Briefly describe expected outcomes and economic (in EUR), social climate/ environmental and gender aspects target results	(i.e. number of new jobs created, tons of reduced emissions of CO2 eq., estimated adaptation impact – number of direct/indirect beneficiaries as a percentage of total population, How will the project address gender and other vulnerable group issues?)
Indicate if there is potential for replicating project activities in other region(s) or neighboring country and describe the use of project results	

Explain why the project requires funding:	<i>(i.e. explain why this is not financed by domestic resources from the public and/or private sector(s))</i>
Financial aspects of the project	
Indicative total project cost (EUR):	
Indicative funding request from GCF (EUR):	
Estimated co-financing (if any) – EUR or % of the total project costs	
Type of financial instrument to be requested:	<input type="checkbox"/> Grant <input type="checkbox"/> Loan <input type="checkbox"/> Other _____
Other financing sources that will partially cover total project costs:	

Applicant information	
Name of the Applicant Organization/ Institution:	
Type of organization/institution: <i>(public (governmental), business, NGO, international organization, academic institution, etc.)</i>	
Address: <i>(street, number, postal code)</i>	
Contact Person:	
Position:	
Contact: <i>(telephone and e-mail):</i>	
Date of submission of the Project idea note for review by the NDA	

PROJECT IDEA NOTE supporting documents:

ANNEX 1

ANNEX 2

ANNEX 3

National strategic document

SECOND BIENNIAL UPDATE REPORT ON CLIMATE CHANGE (2017)

Link to the document

<http://klimatskiproment.mk/data/freet/file/download/554c445ec036a3de04f502b0d60e4fb04f522ac50e974f28811ef56ee77e5090.pdf>

Priority sectors

Mitigation objective

Description of mitigation action

Reducing losses in electricity and heat distribution networks	Operating and constructive measures necessary for loss reduction, implemented by distribution network operators.
Increasing the domestic generation capacity from renewable energy sources	Constructing new large hydro power plants
Increasing the domestic generation capacity from renewable energy sources	Constructing new small hydro power plants and introducing flexible feed-in premium tariffs to stimulate construction
Increasing the domestic generation capacity from renewable energy sources	Constructing solar power plants (larger than 10 kW) and introducing flexible feed-in premium tariffs to stimulate construction
Increasing the domestic generation capacity from renewable energy sources	Constructing solar rooftop power plant and introducing "net metering"
Increasing the domestic generation capacity from renewable energy sources	Constructing wind power plants and introducing flexible feed-in premium tariffs to stimulate construction
Increasing the domestic generation capacity from renewable energy sources	Constructing biogas power plants and introducing flexible feed-in premium tariffs to stimulate construction
Increasing the domestic generation capacity from renewable energy sources	Constructing biomass power plants (CHP optional) and introducing flexible feed-in premium tariffs to stimulate construction
Utilizing the waste heat from TPP Bitola	Constructing central heating system in Bitola and utilizing the waste heat from TPP Bitola
Reducing import dependency and fully utilizing the gas pipeline system	Constructing natural gas power plants (CHP)
Meeting the targets set in the Energy Efficiency Action Plan and the Renewable Energy Sources Action Plan	Installing solar thermal collectors for hot water
Penetration of higher efficiency appliances (classes A+, A+, A, B) and meeting the target set in the Energy Efficiency Action Plan	Labeling electric appliances and equipment to provide relevant information on product energy consumption.
Making more efficient use of electricity to meet the target set in the Energy Efficiency Action Plan	Phasing out heating devices with resistive heaters and replacing them with EU Climate and Energy Policy-compliant heat pumps

Energy - Energy industries

National strategic document		
Link to the document	http://climateactionmenline.gov.mk/rest/1/files/download/552c445fbc1336e3ab0492726c0db0c0e0b04572ee50e507d288171ef165ee677c5090.pdf	
Priority sectors	Mitigation objective	Description of mitigation action
Energy - Energy industries	Raising public awareness about the importance and benefits from buying and using higher efficiency class appliances to meet the target set in the Energy Efficiency Action Plan.	Establishing EE info centers in local self-governments or Centers of the planning regions, in which energy advisors will operate and share free advice with interested citizens about the prospects of saving energy and money in their homes
	Retrofitting existing residential buildings to meet the target set in the Energy Efficiency Action Plan	Reconstructing residential buildings including window replacement, initiated by the owners and/or supported by commercial banks and funds existing in the Republic of North Macedonia
	Retrofitting existing public buildings to meet the target set in the Energy Efficiency Action Plan	Reconstructing existing public buildings (including windows replacement) under jurisdiction of the central government or local self-government.
	Retrofitting existing commercial buildings to meet the target set in the Energy Efficiency Action Plan	Reconstructing existing commercial buildings including windows replacement, initiated by the owners and/or supported by commercial banks and funds existing in the Republic of North Macedonia
	Constructing new buildings to meet the target set in the Energy Efficiency Action Plan	Constructing new buildings in compliance with the Rulebook on Buildings Energy Performance.
	Meeting the requirement of EU Directive 2010/31/EU that all buildings constructed after 31 st December 2020 should be nearly zero-energy buildings	Constructing new passive residential buildings in compliance with EU Directive 2010/31/EU.
	Meeting the target set in the Energy Efficiency Action Plan	Replacing incandescent light bulbs with halogen ones (at the beginning) and later with compact fluorescent (CFL) and LED
	Replacing existing lamps with sodium and LED lamps	Replacing existing lamps with sodium and LED lamps
	Applying energy efficiency criteria ("greening") in public procurement procedures	Intensifying activities to ensure public sector entities gain legal and technical knowledge and skills to include and evaluate energy efficiency requirements in public procurement procedures by applying criteria of most economically advantageous tender
	Enabling access to a new fuel type in residential and commercial and public sector	Gasifying residential, commercial and public sectors by constructing gasification network
Reducing local pollution	Increasing the use of existing district heating systems by information campaigns for connecting new consumers, including those who have been disconnected from the system in the past	
Obtaining sanitary hot water by utilizing the heating system in combination with solar collectors	Obtaining sanitary hot water by utilizing the heating system in combination with solar collectors	

National strategic document

SECOND BIENNIAL UPDATE REPORT ON CLIMATE CHANGE (2017)

Link to the document	http://klimatekproment.mk/data/freet/file/download/554c445ec03663de04502b0db60e4fb04522ae50e97428811ef56ee77e5090.pdf	
Priority sectors	Mitigation objective	Description of mitigation action
Energy - Manufacturing and construction	Implementing mandatory energy audits in manufacturing industries and implementing the ISO 50001 standard	Implementing mandatory energy audits in manufacturing industries and implementing the ISO 50001 standard
	Introducing efficient electric motors in manufacturing industries	Introducing efficient electric motors in manufacturing industries
	Meeting the targets set in the Renewable Energy Action Plan (5 % share of biofuels by 2020)	5% share of biofuels by 2020
	Meeting the targets set in the Renewable Energy Action Plan (10 % share of biofuels by 2020)	10% share of biofuels by 2020
	Increasing the use of the railway by raising awareness to use the railway for long-distance traveling and by improving the conditions of transport companies	Increasing use of the railway by raising awareness to use the railway for long-distance traveling and by improving the conditions of transport companies
	Successfully organized and well-planned steps to faster renew the vehicle fleet	Successfully organized and well-planned steps to faster renew the vehicle fleet
Energy Transport	Introducing a regulation to renew the vehicle fleet with light duty and heavy goods vehicles and buses	Introducing a regulation to renew the vehicle fleet with light duty and heavy goods vehicles and buses
	Conducting campaigns/providing subsidies and systems for using new or rented bicycles, walking, and introducing parking policies to reduce the use of cars in the city area	Conducting campaigns/providing subsidies and systems for using new or rented bicycles, walking, and introducing parking policies to reduce the use of cars in the city area
	Connecting the Republic of North Macedonia to the Republic of Bulgaria and extending exports to external markets, not just in neighboring countries but in Southeast Europe and Turkey region by using railway transport	Constructing railway to the Republic of Bulgaria
	Successfully organized and well-planned steps to faster renew the vehicle fleet, by introducing electric vehicles	Successfully organized and well-planned steps to faster renew the vehicle fleet, by introducing electric vehicles

National strategic document		
Link to the document	http://climate.kuromen.unsj.govt.jp/rest/files/download/552c445fac0330e33ab0492726c0db00e0db04f522ee50e9749288171ef1f50e677c5090.pdf	
Priority sectors	Mitigation objective	Description of mitigation action
Agriculture, Forestry and Other Land Use - Livestock	Decreasing CH ₄ emission levels from enteric fermentation in highly productive dairy cows	By modifying feed composition and nutrition practice in dairy cows, CH ₄ emissions can be reduced by 20% as a result of enteric fermentation.
	Decreasing NO ₂ emission level from manure management in highly productive dairy cows	By modifying manure management in dairy cows, NO ₂ emission can be reduced up to 30%.
	Decreasing NO _x emission level from manure management in highly productive swine farms	By modifying manure management in swine farms, NO _x emission can be reduced up to 50%.
Agriculture, Forestry and Other Land Use - Forestry	Protecting forest areas by preventing forest fires and damages resulting from forest fires	Protecting forest areas by preventing forest fires and damages resulting from forest fires
	Improving the quality of forests by afforesting transitive forest land with higher quality tree species: coniferous, deciduous and mixed forests	Improving the quality of forests by afforesting transitive forest land with higher quality tree species: coniferous, deciduous and mixed forests
Agriculture, Forestry and Other Land Use - Land Use	Reducing the intensity of soil erosion and loss of soil organic matter	Cultivating land on sloped terrain causes intensive soil erosion and mineralization of soil organic matter.
	Reducing erosion of top soil and conserving soil organic matter	Cultivating downslope cropland usually causes intensive processes of soil erosion
	Reducing soil erosion and increasing SOM in vineyards and orchards on sloped terrains (5–15% slope)	In vineyards and orchards on downslope-oriented locations, intensive classical system of cultivation results in intensive soil erosion and depletion of SOM occurs, which leads to intensive soil carbon emissions

National strategic document

SECOND BIENNIAL UPDATE REPORT ON CLIMATE CHANGE (2017)

<p>Link to the document</p>	<p>http://klimatskiproment.mk/data/frest/file/download/554c445ec036a3de04f502b0db60eafb04522ee50e97d28811ef56eac77e5090.pdf</p>	
<p>Priority sectors</p>	<p>Mitigation objective</p> <p>Protecting the environment and meeting the highest European standards</p>	<p>Description of mitigation action</p> <p>Rehabilitating existing landfills and illegal ("wild") dumpsites with very high, high and medium risk in each of the five waste management regions. Closing existing landfills</p>
<p>Waste - Solid Waste Disposal</p>	<p>Protecting the environment and meeting the highest European standards</p>	<p>Opening new regional landfills in all waste management regions with installed systems for mechanical and biological treatment and composting. Mechanical and biological treatment (MBT) in new composting landfills</p>
	<p>Installing containers for selected waste collection, mainly paper</p>	<p>Installing containers for selected waste collection, mainly paper. Sorting waste paper</p>

Priority vulnerable sectors with high adaptation potential

<p>National strategic document</p>	<p>THIRD NATIONAL COMMUNICATION ON CLIMATE CHANGE (2013)</p>	
<p>Link to the document</p>	<p>http://urffccc.ora.mk/content/Documents/TNP_ANG_FINAL_web.pdf</p>	
<p>Priority sectors</p>	<p>Description of adaptation action</p>	
	<p>Modifying existing water supply and irrigation systems to decrease water losses (drip, microspray, low-energy, measuring devices)</p>	
	<p>Implementing water re-use technology (municipal, drainage, waste water)</p>	
	<p>Inventory and GIS mapping the existing wells for groundwater use</p>	
<p>Water Resources</p>	<p>Constructing inter-basin water transfer system</p>	
	<p>Developing river basin management plan, including conjunctive surface and groundwater supply</p>	
	<p>GIS hazard events mapping and risk management (drought and flood)</p>	
	<p>Monitoring network improvement (surface water, groundwater, water use, water quality)</p>	
	<p>Developing flood action plan and introducing Early Flood Warning System</p>	

National strategic document	THIRD NATIONAL COMMUNICATION ON CLIMATE CHANGE (2013)	
Link to the document	http://unfccc.org/mb/content/Documents/TMP_ANG_FINAL_web.pdf	
Priority sectors	Description of adaptation action	
Agriculture – General	Establishing a national fund for testing adaptive measures and introducing drought resistant species	
	Subsidizing adaptation measures for professional farmers	
	Developing new crop varieties selection and experimenting programme to increase crop adaptation to adverse climate change impacts	
	Establishing a National center for drought and yield forecasting	
	Developing techniques and procedures for cultivation, fertilizer utilization and soil reclamation of key crops in CC affected areas	
	Developing different tillage practices to promote sustainable agricultural practices.	
	Developing irrigation techniques and water supply	
	Implementing the "Policy for Biofuels in Macedonia", to consider using biofuels as alternative to fossil fuels in agricultural machinery.	
	Establishing a national network for long-term monitoring of agro-climatic and agro-edaphic parameters as a prerequisite for efficient planning and implementation of adaptive measures	
	Developing criteria and identification of LUT and AEZ	
Establishing 15–20 phenological fields and long-term financing programme		
Including CC adaptation measures into rural development schemes		
Increased organic farming		
Increasing planting depth		

<p>National strategic document</p>	<p>THIRD NATIONAL COMMUNICATION ON CLIMATE CHANGE (2013)</p>	
<p>Link to the document</p>	<p>https://riscs.eu/ml/content/Documents/TNP_ANG_FINAL_web.pdf</p>	
<p>Priority sectors</p>	<p>Description of adaptation action</p>	
	<p>Strengthening and structurally changing Water User Associations and Corporations.</p>	
	<p>Supporting Water communities and changing the system of irrigation water charge (per m³).</p>	
	<p>Developing criteria and identifying and delineating localities with specific climatic and soil characteristics for certain varieties (terroir)</p>	
	<p>Establishing facilities for processing bio residues of biofuels</p>	
	<p>Establishing an early warning system (network of meteorological stations) for improved pest control and water use efficiency</p>	
	<p>Supporting the research and innovation for developing and spreading new production systems and measures</p>	
<p>Agriculture - viticulture</p>	<p>Implementing new training systems, especially in table grape varieties (sun burns protection in grapes) and implementing integrated viticulture production (optimizing pest control and fertilizer use efficiency)</p>	
	<p>Supporting the establishing of facilities and logistics for producing certified seedlings and varieties more resistant to climatic stress.</p>	
	<p>Establishing phenological fields in each sub-region of Povardarie region and long-term financing programme</p>	
	<p>Financially supporting modern adaptation measures, e.g. UV nets, cover crops, sprinkler irrigation</p>	
	<p>Financially supporting methods and techniques for increasing water use efficiency, e.g. pressurized irrigation systems, control systems for efficient irrigation scheduling, etc.</p>	
	<p>Long-term investments in reconstructing and extending dams and irrigation schemes.</p>	
	<p>Financially supporting the dislocation of vineyards on a higher altitude and more appropriate/resistant varieties to frosts.</p>	
	<p>Financially supporting the intensification of establishing new vineyards (only 2% of vineyards are renewed every year), to improve the age structure of vineyards</p>	

National strategic document	THIRD NATIONAL COMMUNICATION ON CLIMATE CHANGE (2013)	
Link to the document	http://unfccc.org/mk/content/Documents/TMP_AWS_FINAL_web.pdf	
Priority sectors	Description of adaptation action	
Agriculture - livestock production	Introducing genetically heat-tolerant breeding animals	
	Adopting special feed and feeding techniques in periods of excessive heat	
	Improving housing conditions by adopting proper ventilation, in-house conditioning and installing cooling systems	
	Introducing continuous monitoring of farm productivity that can be then correlated with heat waves and high temperatures to ensure precise loss calculations	

<p>National strategic document</p>	<p>THIRD NATIONAL COMMUNICATION ON CLIMATE CHANGE (2013)</p>	
<p>Link to the document</p>	<p>https://unfccc.org/ml/Content/Document/THP_ANG_FINAL_web.pdf</p>	
<p>Priority sectors</p>	<p>Description of adaptation action</p>	
	<p>Monitoring the status of alien (and invasive) plant species</p>	
	<p>Monitoring the status of animal species-vectors of diseases</p>	
	<p>Elaborating a list of species for which "exitifil" conservation is necessary</p>	
	<p>Adopting policy instruments for implementing corridors management plans into national and regional spatial planning</p>	
	<p>Carrying out a case study on implementing the ecological network concept in regional planning based on inter-sectoral approach</p>	
	<p>Adapting forestry management plans in main forested bio-corridors to provide their better functionality in terms of CC impacts</p>	
<p>Biodiversity</p>	<p>Carrying out a cost-benefit study on the impact of energy production systems based on using alternative energy sources (hydrological systems, solar power, wind) on biodiversity</p>	
	<p>Defining possible routes (bio-corridors) for moving and migrating CC-threatened plant and animal species</p>	
	<p>Determining ecological minimum for mountain water ecosystems</p>	
	<p>Carrying out a hydrologic study on the vulnerability of lowland marshes, mountain mires and glacial lakes</p>	
	<p>Assessing the impact of periodic natural and induced hydrological fluctuations on biodiversity of glacial lakes in CC context</p>	
	<p>Assessing the impact of periodic natural and induced hydrological fluctuations on biodiversity of mountain bogs and springs in CC context</p>	

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Priority sectors	Description of adaptation action	
Biodiversity	Assessing the impact of periodic natural and induced hydrological fluctuations on biodiversity of lowland marshes and bogs in CC context	
	Assessing the impact of induced floods on Tamaris shrublands, willow woodlands with poplar and Periploca in the Gevgelija region	
	Carrying out a study on the historical and present timber line and modelling future climate-induced changes	
	Detailed mapping and modeling of the changes of some mountain pasture types as a CC pilot study	
	Detailed revision of the Macedonian protected area system related to CC adaptation.	
Establishing an intersectoral body among the administrations responsible for managing water resources and biodiversity, with an activity strategy		

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<p>Link to the document</p>	<p>http://urifccc.org.mk/content/Document/TNP_ANG_FINAL_web.pdf</p>	
<p>Priority sectors</p>	<p>Description of adaptation action</p>	
	<p>Preparing and establishing Regional CC Health Adaptation Strategy</p>	
	<p>Establishing SE Regional Intersectoral Committee monitoring CC adaptation</p>	
	<p>Enhancing the ongoing regional public health activities</p>	
	<p>Educating and training health professionals for dealing with/managing CC impacts and Capacity building adaptation measures in the health sector</p>	
	<p>Creating information and data collection research on regional CC health effects emphasized in this study, including studies with limited or no data</p>	
<p>Human health</p>	<p>Carrying out research studies on cost of damages and health effects and on the benefit of the Capacity building adaptation measures;</p>	
	<p>Establishing integrated CC early warning and monitoring health information system including establishing air pollution monitoring + creating and maintaining a CC health database</p>	
	<p>Preventing effects or reducing risks – establishing adaptation and resilience plans in health care institutions + building resilience: To be an upgrade of existing Hospital safety index and disaster contingency plans</p>	
	<p>Improving drinking water quality (and quantity) especially in rural areas</p>	
	<p>Establishing/enhancing an efficient food safety control system and implementing the HACCP in all levels of food production, transport and marketing, including a transparent and regularly updated regional food safety database</p>	

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Priority sectors	Description of adaptation action	
Cultural heritage		Improving the understanding of adverse impacts of climate change on cultural heritage
		Assessing the vulnerability of built and archaeological heritage as well as historical cultural landscapes by rapid impact assessment
		Establishing a monitoring programme for damages on built and archaeological heritage and historic-cultural landscapes for short-term extreme weather events and long-term climate change
		Identifying tools and adaptation measures for the main categories of cultural heritage
		Limiting damages by implementing long-term management strategies related to adapting CC impacts on heritage