

Improving resilience to floods in the Polog region

Mid-Term Evaluation

30.06.2023 – Final Report



Bogovinska River rehabilitation – May 2023

EVALUATION TEAM

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Acronyms and abbreviations

Acronyms	Full Name
BIRC	Balkan Institute for Regional Cooperation
CCA	Climate Change Adaptation
CMC	Crisis Management Centre
CSPM	Conflict Sensitive Project Management
CTA	Chief Technical Advisor
DPR	Directorate for Protection and Rescue
DRR	Disaster Risk Reduction
DRM	Disaster Risk Management
DUP	Detailed Urban Plan
EE	Energy Efficiency
EU	European Union
EWS	Early Warning System
FRM	Flood Risk Management
FRMP	Flood Risk Management Plan
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit – German society for International Cooperation
GUP	General Urban Plan
HEC-HMS	Hydrologic Engineering Center's Hydrologic Modeling System
HEC-RAS	Hydrologic Engineering Center's River Analysis System
HMS	Hydrometeorological Services
HR	Human Resources
IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
LIDAR	Light Detection and Ranging
MoEPP	Ministry of Environment and Physical Planning
MoF	Ministry of Finance
MSB	Swedish Civil Contingencies Agency
MTE	Mid-Term Evaluation
NCP	Nature Conservation Programme
NGOs	Non-Governmental Organizations
OECD / DAC	Organization for Economic Co-operation and Development / Development Assistance Committee
PB	Project Board
PENF = PE Nacionalni Sumi	Public Enterprise National Forests

PM	Project Manager
PMU	Project Management Unit
ProDoc	Project Document
RBMP	River Basin Management Plan
SDC	Swiss Agency for Development and Cooperation
SDGs	Sustainable Development Goals
SECO	Swiss State Secretariat for Economic Affairs
SCP	Swiss Cooperation Programme
ToR	Terms of Reference
ToT	Training of Trainers
TTX	Table Top Exercise
UNDP	United Nations Development Programme
UNDP CO	United Nations Development Programme- Country Office

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Executive summary

North Macedonia is particularly vulnerable to flood hazards, due to the mountainous topography. With climate change conditions, but also rapid urbanization and change of land use practices, both frequency and magnitude of extreme flood events increased in recent years causing considerable damages and losses, especially in Polog region during the dramatic floods of February 2015, August 2015 and August 2016.

To address the deficiencies observed in the overall flood management system, UNDP Macedonia drafted and submitted to SDC and SECO a common programme “Improving Resilience to Floods in the Polog region” in 2017. This project includes a comprehensive set of complementary mitigation and resilience building measures, based on existing and new flood risk assessments. It aims to shift the flood risk management in the Polog Region from a reactive response to a more integrated approach including prevention and preparedness measures.

The programme evaluation has to provide tangible information to assess the results of Phase 1 of the programme implementation from 20 November 2017 to 31 December 2023 in the Polog region.

The evaluation will be the basis to advise and provide to SDC and SECO recommendations for further development of the Swiss engagement in flood management and DRR in North Macedonia.

More specifically, the programme evaluation provides qualitative and quantitative information on:

- Main achievements and lessons learnt according to the outputs and outcomes indicators in the programme log frame.
- Steering programme, to inform and advise SDC and SECO for further development of DRM in North Macedonia,
- Accountability of the stakeholders and funders: effectiveness and efficiency of the implementation process

The evaluation is providing information on relevance, coherence, effectiveness, efficiency, impact, and sustainability, guided by the OECD/DAC criteria to assess each of the component of the evaluation and provide answers to the questions mentioned in Annex 1 - chapter 3.4.

The details of the findings of the evaluation are reported in chapter 4 of this Mid-term evaluation report. The final evaluation by application of the DAC criteria is presented below:

RELEVANCE

Rating	Satisfactory (S)
Observations	<p>The project is relevant to the local context, tackling complementary components of Flood risk management at central, regional, and local levels through SDC and SECO components.</p> <p>The project interventions are relevant regarding the needs and the vulnerability of the local population after the floods of 2015 and 2016 in Polog region, the low technical and financial capacities of the municipalities and the lack of coordinated river basin management.</p> <p>The integrated approach of the Flood risk management plan developed in the programme is aligned with the EU directives which is a priority of the MoEPP.</p> <p>A discrepancy exists between the project design and the implementation. As the project design was considering a participatory and inclusive approach, the implementation shows a lack of inclusion of the civil society and communities. Some interventions are partially not responding as far to the needs of civil society in terms of awareness raising and results of the mitigation measures (Shipkovica, Senokos-Lomnica, Staro Selo)</p>

COHERENCE

Rating	Highly Satisfactory (HS)
Observations	<p>The programme is highly coherent with the Switzerland's international cooperation strategy 2021-2024, considering Eastern Europe Countries as geographical priority and Climate Change (including risk reduction) as one of the four thematic priorities. The programme is also aligned with the SCP of North Macedonia 2021-2024, as part of Outcome 3 - -Environment and sustainable public utility services and contributing to democratic governance and sustainable economic development. Complementary with other programmes of SDC supporting Water supply, Waste management and Nature conservation, the DRR approach of the programme is aligned with Sendai Framework and the SDC DRR guidelines, promoting prevention and preparedness and integrated risk management. This programme is a successful innovative experience of combining SDC and SECO components.</p> <p>Externally, the interventions of the programme are not duplicating the programme of other donors in North Macedonia in the field of DRM. Synergies could be developed as followed:</p> <ul style="list-style-type: none"> - Harmonization of hazard mapping methodologies (GIZ, JICA), - EWS (EU, JICA and GIZ), - Harmonization of the FRMP approach to include in RBMP (EU -IPA Project) - Afforestation (JICA) - Nature-based solutions (JICA, IUCN) - Insurance model (EuropaRe),

EFFECTIVENESS

Rating	Unsatisfactory (U)
Observations	<p>The effectiveness of the programme is unsatisfactory.</p> <p>The approaches/strategies during implementation are not including civil society and communities in a participatory and inclusive approach. The interventions are individually all relevant and effective but scattered in the region and separating the hard and the soft components. The capacity development and awareness raising essential to build local governance on flood risk management were postponed at the end of the implementation and are still insufficient until now.</p> <p>At the moment of the evaluation 2/3 of the indicators are achieved and many activities are now on track but some still out of the timeline (Vardar River rehabilitation in Gostivar and Jegunovce) and would need additional time to be completed.</p> <p>Constraints due to the lack of a dynamic and operational DRR platform reduce the chance of an approval of the National FRM and Action Plan during Phase 1. A lack of ownership and political sensitivity would also limit the opportunity to implement the road map for risk financing and risk transfer and insurance.</p> <p>Transversal themes as gender are not mainstreamed in the project but implemented as specific topic after the implementation of the activities.</p>

EFFICIENCY

Rating	Unsatisfactory (U)
Observations	<p>The efficiency of the programme is unsatisfactory.</p> <p>The interventions are not necessarily cost-efficient. The implementation relies heavily on national and international consultancies to achieve the results. Some activities should be implemented by capacitated local stakeholders with less subcontractors.</p> <p>The efficiency of the mitigation measures/landslide stabilization is not proven (Staro Selo, Senokos Lomnica) but it was chosen to implement those measures. Technical optimizations of the mitigation measures including nature-based solutions are possible to reduce the investment costs (Bogovinjska river).</p> <p>The energy efficiency measures implemented in 2022-2023 are not all efficient regarding the change of the context, with the energy crisis (price of pellets, price of electricity).</p> <p>Regarding the timeline, many disruptions were observed during all the implementation delays due to construction permits, miscommunication and coordination, high turnover of the PMU staff members with long periods without PM and slow implementation, delays in construction works.</p> <p>Regarding the management of the project, the monitoring of the risks is not sufficient to allow a quick and adapted reaction to mitigate the risks. The high turnover of staff in PMU was not handled quickly and had repercussions on the workplan, Project board meetings were not organized to make decisions and inform the main stakeholders, a lack of reactivity is also observed in the field in construction works to solve the issues with the communities. The reporting in progress reports is not aligned with the indicators and financial details were provided by outcomes before 2022. Now a more transparent financial reporting is available after 31.12.2021.</p>

IMPACT

Rating	Satisfactory (S)
Observations	<p>The impact of the programme is satisfactory.</p> <p>Some interventions are expected to provide higher level effects:</p> <p>The guidelines developed on DRR mainstreaming in urban and development planning are valuable and could be up-scaled at the national level for further implementation in the country.</p> <p>FRMP as part of the RBMP and aligned with the national FRM strategy developed for North Macedonia could be replicated once approved by MoEPP.</p> <p>Hazard and risk maps have to be shared with other stakeholders in the Polog region and afforestation works could be replicated to mitigate erosion and landslides based on erosion and landslide maps.</p> <p>Finally, Nature-based solutions concepts developed in Polog region could have a great impact at the national level with application on other mitigation measures.</p>

SUSTAINABILITY

Rating	Unsatisfactory (U)
Observations	<p>The sustainability of the programme is unsatisfactory.</p> <p>The stakeholders are motivated to continue activities but need to have a specific capacity building to be able to manage similar activities. During the first phase of implementation until now, the partners were involved more as beneficiaries than as leaders. Their ownership is expected to increase after the capacity building.</p> <p>The lack of financial resources is variable from one municipality to another and will be a key element to tackle during the end of the phase to allow the sustainability of the programme. MoEPP is also concerned by low financial capacities and is advocating to MoF to reach additional budgets. A hope exists to have more budgets allocated to Centre of regional development from MoF in the next years (modification of the law).</p>

1. Introduction

A chain of disastrous flood events affected North Macedonia in 2015 and 2016 which lead to enormous economic losses and loss of lives which was not the case in other past flood events. The sequence of historical events revealed that Polog Region is particularly more often exposed to torrential floods and landslides. The need to switch the pure disaster management concept to an integrated system of managing hazards and mitigating the risk of floods triggered the initiation of the Programme « Improving Disaster Resilience to Floods in Polog Region ». A programme which is fully aligned with Sendai Framework for Action 2015-2030, EU Flood Directive, Global Sustainable Goals and Swiss Cooperation Programme 2021-2024.

The Programme is financed by SECO and SDC and implemented by UNDP Country Office in North Macedonia. The duration of the Programme was planned to be 01.10.2017 - 31.12.2021. Due to several unforeseen issues the programme extended the duration of implementation with and without cost extension until 31.12.2023.

The Mid-Term Evaluation process is initiated in order to provide insights of following aspects:

- 1) learning (what works, what does not and why),
- 2) steering (inform and guide further development of the Swiss engagement in flood management and DRR in North Macedonia; and
- 3) accountability to stakeholders and funders.

Moreover, will provide insights into the programme's effectiveness, efficiency, relevance, coherence, impact and sustainability in the frame of set targets.

In order to support the evaluation of the programme it has been specified that the team of evaluators must be comprised of by the International Consultant and one local consultant with clear roles and responsibilities specified in the ToR. The evaluation is set to be done with desk review of the available baseline documents and documents/reports which were drafted in the frame of the Programme, followed by interviewing key beneficiaries, partners and donors of the programme. The review process also consisted of site visits of the infrastructural and Energy Efficiency measures which were implemented in the frame of the DRR Programme.

Upon contract award, the Mid-Term Review of the « Improving Disaster Resilience to Floods in Polog Region » is smoothly implemented following the ToR and is technically supported when needed by the SDC office in Skopje and the Programme management unit of UNDP North Macedonia.

2. Summary description of the programme

An unique (for the region) and comprehensive project document is drafted by UNDP North Macedonia following several unfortunately fatal flood events which affected North Macedonia in 2015 and 2016. The Project Document addresses the gaps identified in the central and local level disaster management institutions as well as municipality administrations. The entire ProDoc is aligned with global and European standards in DRR such as: Sendai Framework for Action 2015-2030, Sustainable Development Goals and EU Flood Directive. Additionally, it is in compliance with Swiss Cooperation Strategy Macedonia 2017-2020 and Swiss Cooperation Programme North Macedonia 2021-2024.

The project document as it is designed was intended to ensure following results:

- a) an improved knowledge of region's flood risk, causes and appropriate responses among authorities and other stakeholders;
- b) an inclusive approach to flood risk management planning in line with EU legislation that is sensitive to the specific needs of different vulnerable social groups;
- c) a better preparedness for flood risks and strengthened recovery capacity thanks to improved governance;
- d) progress toward flood risk-based urban and economic development;
- e) a reduction in the adverse consequences of future floods in high-risk areas through the repair or construction, as demonstration projects, of flood control infrastructure in line with contemporary approaches and techniques;
- f) creation of a flash-flood early warning and public-alert system; and

g) progress in the adoption of the objectives and principles of the EU Floods Directive and the Sendai Framework for Disaster Risk Reduction.

Finally, the successful implementation of the project would ensure community resilience in Polog region, strengthened disaster management institutions and advanced EWS through strengthened Hydrometeorological Service.

The Project is designed to be implemented in partnership with key stakeholders such as: Ministry of Environment and Physical Planning, local administrations in Polog Region, the Centre of Development of the Polog Planning Region, Hydrometeorological Service, water management institutions and local communities.

Taking into consideration that the whole country of North Macedonia is affected by floods the project is designed to offer many possibilities of scaling-up and replicating flood protective measures in other flood risk areas of the country. Involvement of Swiss experts, companies and universities in the implementation phase of the project is foreseen to develop new innovative and environmentally friendly approaches for integrated flood management which could be scaled-up internationally and not only at country level.

The implementation of the project is assigned to the Project Management Unit, which quality assurance is provided by the Head of the UNDP Environment Unit, SDC National Programme Officer and MoEPP Head of Water Department. The Project Board consisted by the Minister of the MoEPP, Swiss Embassy and Rotational Mayor from Polog Region is a decision-making body entitled to approve Annual Work Plans, make decisions on requirements addressed by the Project Manager, approve any deviations from original Prodoc plans/activities.

3. Evaluation methodology

The evaluation was made following the methodology detailed in the ToR (Anne 1) and following the process presented below:

Desk study – Inception phase (01.04.2023 to 30.05.2023)

All relevant documentation regarding the program was collected from SDC-SECO and UNDP for a first analysis to prepare the meetings and interviews with the key stakeholders.

More specifically, the evaluators analysed in detail the Entry proposals, Credit Proposals, Extension of the Credit proposal, Project Document (the original and the updated version), Contractual documents, Project narrative and financial reports prepared by UNDP, Project Boards' meeting documents.

Following this first analysis, the local consultant organized the field mission, requesting, preparing, and organizing the meetings with the main stakeholders, data collection and field visits in Polog region. All the key stakeholders were considered to plan the field visits.

Field mission (02.05.2023 – 12.05.2023)

A briefing with the Swiss Embassy in Skopje was organized at the beginning of the field mission to explain in detail the workplan of the field mission, the meetings planned and the way to proceed the interviews and to collect data.

The evaluation team proceeded to the meetings/interviews first with the implementer (UNDP) and then with the relevant key stakeholders following the agenda in Annex 3. The evaluation team visited both urban and remote mountainous areas in Polog region to assess the results of the activities in the field with local DRR stakeholders and consulted the beneficiaries.

At the end of the field mission, a debriefing workshop at the Swiss Embassy was organized to share the first results and findings.

Data analysis and preparation of Draft Evaluation Report (12.05.2023 – 04.06.2023)

Based on the information collected during the field mission and the document analysis made during the desk study, the evaluator fills in the assessment grid with DAC criteria and prepare the draft mid-term evaluation report.

The local consultant helps the evaluator to provide insights regarding the local DRM stakeholders network, their involvement in the program implementation and the analysis of the local context.

Draft Evaluation Report (04.06.2023)

The draft of the mid-term evaluation report is delivered by the evaluator including all the data collected and the findings, conclusions, and recommendations and the assessment grid with DAC criteria.

As mentioned in the ToR, the evaluator provides a report with the findings and recommendations for DRR further development in North Macedonia.

Feedback on the Draft Evaluation Report by the evaluation manager and reference group (09.06.2023)

Comments on the draft mid-term evaluation report will be provided by the Swiss Embassy to the evaluator team after a 3-week delay after the delivery of the draft report.

Final Evaluation Report (30.06.2023)

The evaluator team will review the draft Evaluation report according to the comments received from the Swiss Embassy and provide answers to each comment to transparently document the adjustments and modification made on the draft evaluation report.

The final Evaluation report will be delivered 2 weeks after the reception of the Swiss Embassy's comments.

Swiss Embassy's Management Response and Final Evaluation report dissemination (18.08.2023)

After the delivery of the Final evaluation report, the Swiss Embassy will be in charge to provide the adapted management response and disseminate the final report to the persons in charge.

4. Findings

This section provides the main facts identified during the evaluation exercise based on data collected. The Evaluation paid attention to cross-verification of the evaluative evidence using multiple sources of information to avoid, as far as possible, over-reliance on opinions obtained during the interviews.

4.1 Project Design/Formulation

The programme is based on a project document developed by UNDP in 2017, combining SDC and SECO components as a unique programme, following the call of complementarity of the Dispatch 2017-2020 in transition countries in the field of Disaster Risk Reduction:

Organization	SDC	SECO
Dispatch reference	5.3.3 Promotion of integrated river basin management 2.2.2.2 Disaster preparedness and reconstruction	4.3.4: WZ4/ Aktionslinie 1: Integrated urban development/ reduction of disaster 5.3.3 Solid public urban infrastructure services & Sustainable urban development
Key words	early warning system, farming techniques, crisis management, public awareness, legislative and institutional framework	urban resilience, urban planning capacities, infrastructure financing, effective and efficient public infrastructure services.

Source: SDC- Entry Proposal – 31.08.2017

While SDC is focusing on the national-level and regulatory framework (Output 4.1), improves flood preparedness and early warning system (Outputs 2.1 & 2.2) and nature-based solutions for flood mitigation measures in rural and remote areas (Output 3.2), SECO's interventions aim to build a comprehensive long-term flood risk management planning including DRR mainstreaming in urban and development planning (Outputs 1.1 and 1.2), to finance infrastructure mitigation measures (Output 3.1), and to develop risk financing and risk transfer mechanisms (Output 4.2). Both are contributing to knowledge sharing (Output 5.1).

As SECO is prioritizing urban resilience, SDC is acting in complementarity in rural and remote areas targeting the most vulnerable people threatened by floods in the communities, following a same river basin approach for flood integrated risk management.

Regarding the international cooperation strategy 2021-2024, North Macedonia as part of Eastern Europe countries is still a geographical priority for SDC/SECO and Climate Change (including risk reduction) is one of the four thematic priorities.

The integrated risk management approach proposed in the programme and the importance given to prevention and preparedness are key elements of the SDC guidelines on Disaster Risk Reduction.

Aligned with the priorities of the North Macedonian government, the Sendai Framework on DRR and the Flood EU directives, the Swiss Cooperation Programme North Macedonia 2021-2024 prioritize resilience building in the communities and among vulnerable populations exposed to climate-induced natural hazards, through a better understanding of disaster risks, risk-informed mitigation measures and improved risk management and response capacities of local and central level authorities. The programme is part of the Swiss Portfolio Outcome 3 “*Improved inclusive public utility services, enhanced resilience to natural hazards and sustainable management of natural resources*” and corresponds to one of the priority themes of the Strategy “*Climate, environment and disaster risk reduction integration*”.

- ➔ The design of the programme is **aligned with the Sendai framework on DRR**, working on the four priorities of the framework.
- ➔ The programme is **aligned with the needs in Polog Region** after the flood disasters of 2015 and 2016 and the low capacities of local stakeholders to manage flood risks and aligned with the **national priority** to harmonize the existing water management with the objectives of EU Flood directive to move from emergency response actions to an integrated risk informed flood risk management.
- ➔ With the **combining of SDC and SECO components**, the programme proposed **an innovative relevant and adapted approach** to reach the goals of integrated flood risk management and providing a complementarity of the DRR actions to enhance local resilience in Polog region and potential impacts.

The project is perceived as one unique Swiss funded programme by the stakeholders which is evidence of the relevance of this combined approach.

- ➔ The design of the programme follows the **targets of the Switzerland’s International Cooperation Strategy 2021-2024**.
- ➔ The design of the programme is **aligned with the SDC DRR strategy**, promoting prevention and preparedness, local governance based on integrated risk management and **with SECO priorities** on risk financing and insurance and infrastructure financing in urban areas.

The review of the Project Log frame confirms that this project is well aligned with local, national, regional, and global priorities and its logic is appropriate to address clear national, regional, and global needs/priorities.

The project document is well structured and comprehensive regarding the implementation participatory and inclusive approach, the outcomes, outputs, and indicators description. However, the following observations can be made:

- The outputs and indicators mentioned for a 4-year implementation period need to have an effective Project Management Unit including a strong DRM experienced expert to make the link between the different DRM components and with a CSPM specialist to facilitate the implementation and constantly reschedule the activities’ implementation regarding the constraints and opportunities of the context.

The set up and the chapter on resources needed for the project implementation didn’t mention any DRR/DRM/Flood expert inside the PMU. Dr. Markus Zimmermann was added as CTA of the PMU, but his role and responsibilities were not stable during all the duration of the programme implementation, changing with the turnover of PM, from advisor to mandatory technical approval referent (cf Chap. 4.11).

- During the interviews, it was mentioned by different UNDP Implementation Unit’s members that the programme as designed is innovative, complex, and ambitious, whereas the project document was elaborated by UNDP and submitted to SDC/SECO for contribution.
- The project document didn’t detail the timeline of the programme which could have helped to assess the plausibility of the programme implementation in the duration of 4 years:
- The implementation approach based on participatory and inclusive approach presented in the project document corresponds to the expectations of SDC/SECO combining capacity building to hard components and including the relevant stakeholders in decision making processes so that

they can progressively enhance their capacities and ownership essential for the sustainability of the programme.

The role of each stakeholder is well described regarding the different outcomes and outputs of the programme.

- The Sustainability and up-scaling approach are also well described for each output so that the sustainability is considered right the beginning of the implementation in the project document.

4.2 Partnership

National level

MoEPP is the main partner and co-financing authority of the project. It is the leading entity in country for water management and other water related issues. The Water Department, despite lack of staff and financial resources operate successfully and manage to support local municipalities in obtaining permits for riverbed rehabilitations and other measures related to rivers. Its main priorities are water supply, wastewater treatment and waste management. Nevertheless, in the future in partnership with Ministry of Agriculture and Ministry of Finance possibilities for risk financing and insurance mechanisms for floods should be investigated and initiated. MoEPP is the key stakeholder who can ensure scaling-up and replications of the FRMP approach. Nevertheless, the inclusion of MoEPP in overall implementation of the project was insufficient, in terms of regular communication and coordination. As a cost-sharing authority and a Project Board executive member, MoEPP was not regularly updated by UNDP PMU about the progress of project implementation.

CMC is the key national stakeholder in disaster risk reduction and management. Their presence in regional level strengthens the EWS for all natural hazards. The existing capacities in GIS, e-risk assessments, 112 – emergency number, position the institution on the top of DRM chain. CMC's priorities are information and data sharing, harmonization of hazards mapping methodology and capacity building guidelines. Even though, one of the main actors in DRM, CMC at the central level was not involved in project implementation between 2020 and 2022.

MoF is incorporated in the DRM activities only in damage assessment and compensation of the losses caused by the natural disaster. Indirectly is involved as a partner for mandatory insurance and is responsible for increasing the regional budgets for DRR local interventions.

Involvement of **Ministry of Agriculture** in projects implementation is very limited. It is foreseen that in the future in activities related to insurance the entry should be done as a continuation of the process of insuring crops.

The **Public Enterprise National Forests** has capacity to make awareness raising and maintenance of the forest after afforestation. The cooperation with UNDP project has been limited to providing specific plants for afforestation in Sharr Mountain and Bogovinje municipality. The involvement of the public enterprise National Forests ensures replications possibilities and scaling-up in other at-risk sites in the country.

The **Academia** has been a crucial partner to the project implementation by providing assessment report related to risk of floods, erosion, afforestation, design, etc. There is a possibility of building capacity and exchange of experience with Swiss and regional universities. Beside the universities also the Chamber of Licenced Architects and Civil Engineers can be a suitable partner to work with in building capacities of local experts in nature-based solutions for riverbed rehabilitation, etc.

The **Directorate for Protection and Rescue** at central level support their representatives in local level in emergency management and response.

Hydrometeorological Services have been strengthened throughout the project implementation as the key stakeholder for flood EWS. It lacks capacities in staff and budget.

Regional Level

Centre of Regional Development in Polog Region is legally established institution which represents 9 municipalities of Polog Region. It is not a member of the Resilient Polog Network and sporadically invited to some meetings as auditor, even though its offices are based in South Easter European University in Tetovo. Despite the lack of staffing, it has capacities in GIS which can be a great asset to the Resilient Polog Network. MoF is planning in the future to increase the budgets of all Centres of regional

development in North Macedonia which should increase also the leadership of those structures to manage and implement development measures.

Representatives of civil society at the regional level, as National Park Sharr Mountain and BIRC are absent of the Resilient Polog Network meetings, according to the interviews carried out and to the list of attendees received from UNDP regarding meetings 8th and 9th of the Network.

It's highly recommended to include representatives of the civil society in the decision-making process with Resilient Polog Network, enlarging the ownership and leadership on DRM outside the political circle. This would help to create a system less sensitive to local political competition issues and to tackle communities' expectations without the intermediate of the municipalities.

For instance, representatives of **National Park Sharr Mountain** should be consulted on the afforestation activities and on the nature-based mitigation measures. **Local NGOs such as BIRC** should be also associated to the network to ensure public awareness raising of the community about flood risks and protection of afforestation measures.

Similarly, **it is highly recommended to include regional offices of CMC and DPR in Gostivar and Tetovo** in the activities of Resilient Polog Network, in accordance with their roles and responsibilities. As far, they were sporadically involved in some workshops of Resilient Polog Network, on subject they are not responsible for (DRR mainstreaming in urban planning) and not involved in Bogovinje TTX (DPR and CMC Gostivar) whereas it would have been aligned and relevant regarding their responsibilities.

Local level

Municipalities: Municipalities benefiting from the project, big and small ones have discrepancy in receiving support from the project. Larger municipalities such as Gostivar, Tetovo and Bogovinje have the largest number of projects which were supported by the project. To overcome this, in future it is proposed that the Network takes the responsibility of selecting projects based on the cost benefit analysis, vulnerability and number of beneficiaries (population).

4.3 Project results

The results for each output and outcome regarding the indicators mentioned in the logframe are detailed in Annex 5.

The main findings are highlighted here:

Output 1.1: Flood risk management plan, hazard and risk maps:

The FRMP was established in 2018 and was updated twice in 2021 and 2022. The **integration of social vulnerability** as mentioned in the social research and in the FRMP 2018 is not part of the 2 updates and **is still missing in the document**. In absence of additional documentation, it is concluded that no specific process to target the most vulnerable population of the river basin was considered to choose the location of the mitigation measures implemented in urban and rural areas (outputs 3.1, 3.2).

Hazard maps are established with a **high resolution**, integrating **LIDAR data**, and using HEC-HMS and HEC-RAS 2D modelling software. The **sediment study** made in the frame of the project was not included afterwards in the hydraulic model. It is especially important in Vardar River, with a high sediment transportation and flat areas, and in the foot of the mountains as in Poroj where mudflows are the most important phenomena threatening the population.

FRMP, hazard and risk maps established in this output are not shared and disseminated to the stakeholders (national, regional, and local levels).

Output 1.2: DRR mainstreaming in urban and development plans.

The results obtained in this activity are valuable and of good quality, providing practical workshop to the stakeholders and guidelines to replicate the methodology in other areas. DUP Kamenjane was developed, and GUP is planned in Tetovo in 2023. The legal process is long, and this activity could be uncompleted at the end of first phase of the programme. A specific follow up from the PMU is needed for this activity with the municipality and ministries.

Municipal Flood Defense Plans developed in 2020 were not updated, because a specific Bylaw has to be developed to include FRMP and Sendai Framework in the Municipal Flood Defense Plans. The existing plans don't include actions plan in line with the FRMP but a risk assessment at the scale of the municipalities.

Output 2.1: Functional EWS

A study elaborated in 2021 by GHI was not aligned with the North Macedonian context and abandoned. A new concept was developed in March 2023 by a national consultant and will be now implemented.

Hydrological and Meteorological Network has been enhanced by the equipment of new stations. The additional equipment proposed is relevant to enhance rainfall and hydrological data and develop an effective EWS for Polog region. Nevertheless, the new data are only shared now with CMC and DPR national offices and not with the local stakeholders (CMC, DPR regional offices and Municipalities)

Output 2.2: Awareness raising of the communities – preparedness and EWS

The awareness raising campaigns are not yet implemented because they depend on the results of the EWS. This activity is part of the capacity development plan and is planned in Q3 2023. The drills realised in the frame of the project until now are reference exercises to assess the capacities and knowledge before the EWS implementation. The drills are more focused on preparedness and emergency response than on EWS.

Output 3.1 – Flood risk mitigation measures in urban areas

The mitigation measures in urban areas are useful, effective, and efficient. The process to choose the mitigation measures and the criteria considered is not documented. A cost benefit analysis based on a standard methodology would be useful to compare the efficiency of the measures and to prioritize the investments in the whole Polog region. It would help also to have an equity of treatment for all the requests of the 8 municipalities in the river basin.

A participative and inclusive approach is needed for all the duration of the development of the rehabilitation projects from design project to the end of the construction work to limit misunderstandings and sometimes conflicts during the construction works.

Shipkovicva :

	
<p>Upper part of Shipkovicva village: communities request to fix the construction work (tag on the panel)</p>	<p>Exchange with some people from the community to understand the blockage, in presence of the municipality of Tetovo and the civil engineer of the construction company</p>



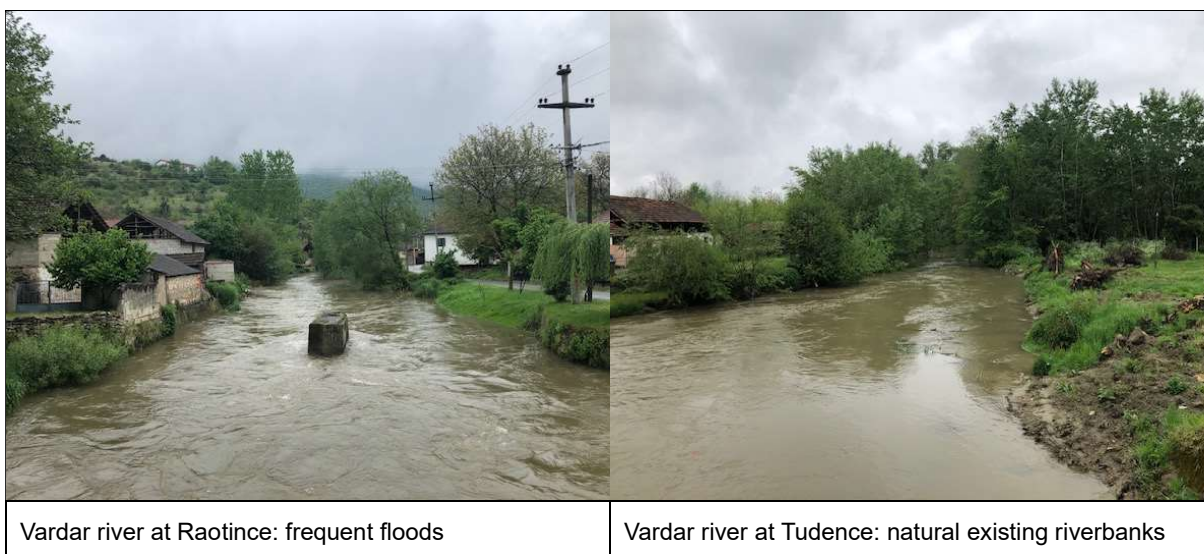
The construction is blocked by the communities because of an incompatibility of the access road and the path of the river across the lower part of the village. This issue could have been tackled before the start of the construction work by a better participatory and inclusive approach. MTE consultants discussed with municipality representatives, the civil engineer representing the construction company in charge and the community representatives and there is a willingness from all parties involved to reach a common agreement and finalize successfully the construction works and contribute to more resilient community to floods.

Bogovinjska river rehabilitation:



The river rehabilitation in Bogovinjska river doesn't integrate bioengineering solutions. Concept of nature-based solutions has been developed afterwards by the Holinger study, providing good inputs for the next river rehabilitation in Vardar River in Gostivar and Jegunovce.

Jegunovce:



The design project in Jegunovce for Vardar River have to be controlled to ensure the optimization of the technical solution promoting as far as possible nature-based solutions when they are hydraulically possible, to avoid a great impact on the existing natural riverbanks and reduce the costs of the construction work.

The same approach has to be applied in Vardar riverbed rehabilitation in Gostivar, based on the proposals of Holinger study.

Output 3.2 – Nature based solutions, afforestation and energy efficiency in rural communities.

The mitigation measures are designed for 7 landslides stabilization and 1 riverbed was cleaned in Zelino.

The cost effectiveness and cost efficiency of the landslide stabilization measures are not proven.

A CBA was made for the measures at the feasibility stage (sediment study) based on material potential damages and not considering human lives and vulnerability of the local population. The CBA for Senokos-Lomnica (0.5) and for Staro Selo (0.6) made at the feasibility stage already shows that those mitigation measures are not efficient. Nevertheless, it was chosen to implement those measures. Only 4 of the 10 measures analysed in the feasibility study are efficient (Germo, Bozovce, Jelovjane and a settlement near Senokos), other measures present a CBA ratio < 2.

The quality of construction is not sufficient in Senokos-Lomnica and a global control of all the ongoing construction works for landslide stabilizations is needed.

The quality control is handled contractually by a supervision engineer hired by UNDP and by a civil engineer consultant hired by UNDP to support the UNDP PMU. The observations in the field show that the quality of the construction for Senokos-Lomnica is not sufficient to ensure the effectiveness of the measures (lack of staples, issue on the top of the landslide, unstable rocks not evacuated). Adaptive actions should have been carried out during the implementation and not at the end of the construction work.

Senokos-Lomnica :



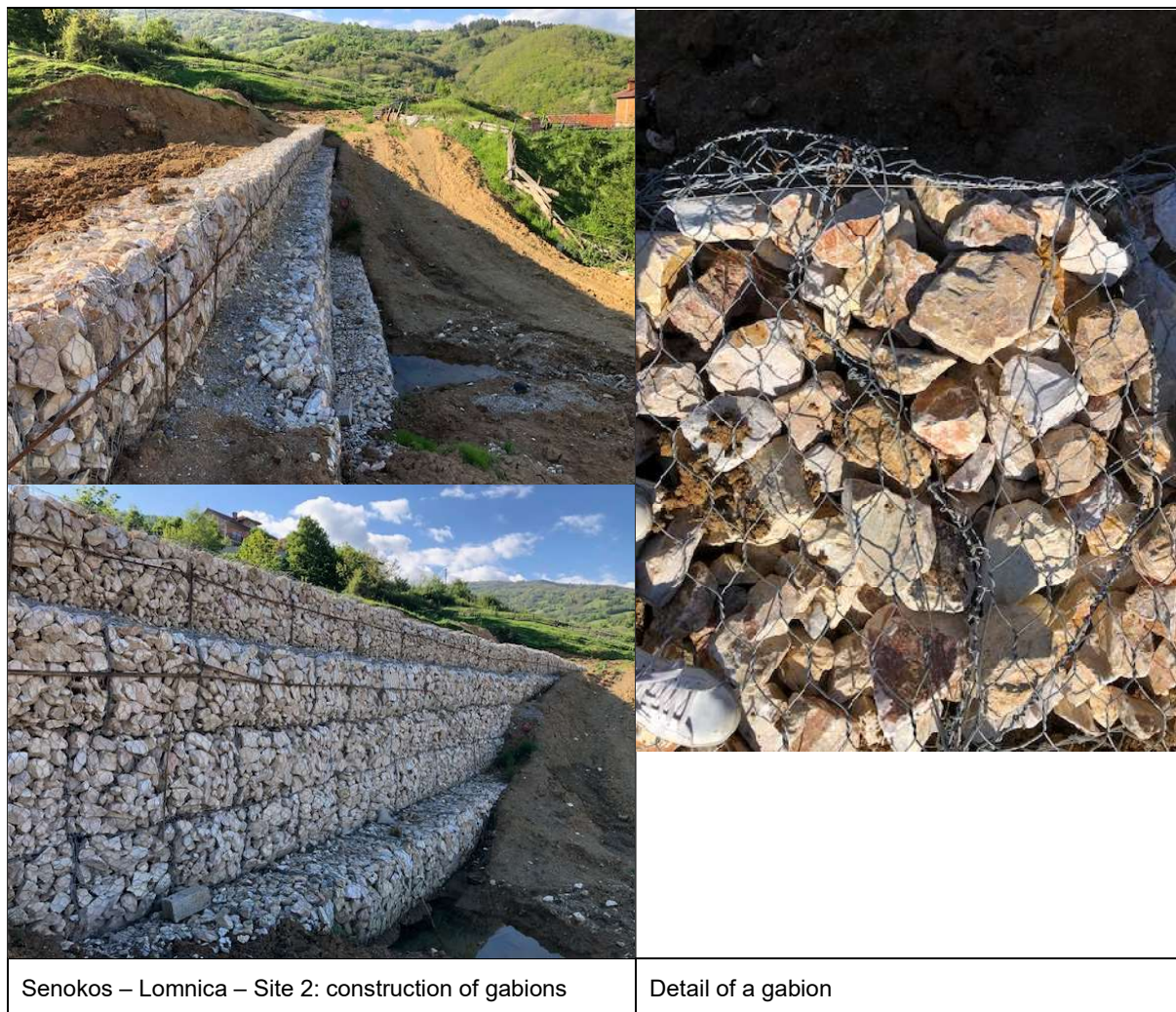
Senokos-Lomnica – site 1: road protection: net not fixed to the ground with staples

Senokos-Lomnica – site 1: rocks dangerous for the road protection, planned to be destroyed during the construction work – to follow up because not planned according to the construction company



Senokos-Lomnica - site 1: Upper part of the net not fixed to the ground and regressive erosion above the net

A quality control is necessary in Senokos Lomnica to check the coherence of the executed work in the field regarding the design project.



The gabions are also presenting an insufficient quality of craftsmanship. A quality control is necessary before the end of the construction work.

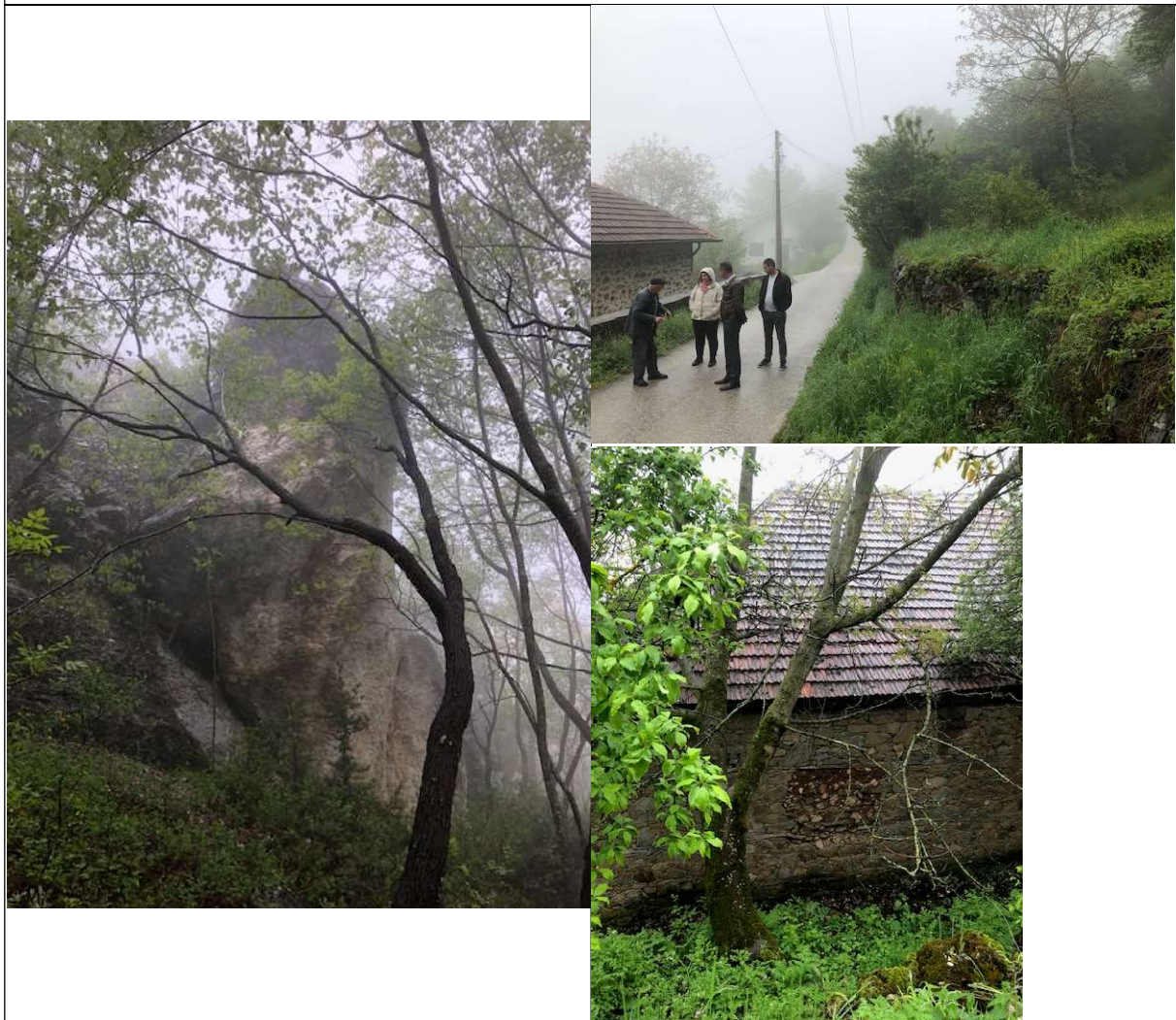
Staro Selo

The construction works in Staro Selo were blocked by National Park Sharr Mountain because of the road built in the protected forest inside the perimeter of the National Park to access the cliffs of rockfalls.

A solution has to be found quickly with Municipality of Jegunovce and National Park Sharr Mountain to continue with the construction work. A compensatory afforestation should be proposed regarding the impacts of the access road on the forest. In the future, such issues could be avoided by a better coordination and cooperation with all relevant partners. MTE team met separately the mayor of municipality of Jegunovce and the management team of the National Park Sharr Mountain and there is a willingness of both partners to find an agreement and to improve their collaboration in the future. Especially, a consultation of National Park Sharr Mountain is needed already during the design phase.



Staro Selo : access road to the rockfall site



Cliffs triggering rockfalls and threatening some houses of Staro Selo.

Exchange with an inhabitant of Staro Selo and witness of an ancient rockfall in the house and on the road.

Afforestation

The surface afforested are much higher than the target fixed in the indicators.

Nevertheless, if the plantations show good results with 90% of good growth, a 5-year maintenance should be planned to eliminate other vegetation smothering the young trees. Those plantations should be accompanied by awareness raising campaigns in the communities directly concerned to explain the role of those plantations for flood protection.

Afforestation works could be easily replicated in the future with PENF and/or with National Park Sharr Mountain, as implementers. PENF could provide seedlings to National Park Sharr Mountain who can manage the plantation work, the maintenance and the awareness raising campaigns on forest and river basin protection in the community.

Energy Efficiency:

The objective to reduce the use of wood cut from local forests by a change of heating source, is not always reached.

With the energy crisis of last winter, pellets were reaching three times the price of local wood.

Some inverters are not always used because of penury of electricity in the school in Jegunovce. An alternative heating with central heating system (wood) is used but will be replaced by the municipality by a geothermal resource.

In the context of climate change and energy crisis, a review of the energy efficiency strategy should be useful. Also, the way to target the most vulnerable people has to be developed.

Output 4.1: National FRM strategy and Action Plan

The national FRM strategy and Action plan exist and have been elaborated with a participatory and inclusive approach of all the relevant national stakeholders. The strategy is aligned with EU directive and need to be approved by MoEPP. The legal basis needed to transpose EU Flood directive in the national Water Law is missing and don't allow MoEPP to approve FRM strategy.

The DRR national platform exist legally but is not operational because of political issues inside the government for more than 10 years.

The probabilities to have a functional DRR platform regarding the 2024 elections are very low.

The coordination of the donors should be made by MoEPP and Secretariat of EU continuing to advocate for the necessity of a DRR national platform.

Output 4.2 – Risk financing and risk transfer

The road map has been elaborated but need to be shared with stakeholders to review now the opportunities to implement it. In particular, MoF is not directly in charge to establish a mandatory insurance in the law even if it is convinced of the necessity of such insurance. Regarding the experience of EuropaRe with MoAFWE, a low percentage of penetration of insurance has been reached among the farmers (4%) because of a disparity of the amounts received by the insurers in case of disaster and the amounts received by the government after a disaster. This question is also a political sensitive topic.

Output 5.1 – Knowledge sharing

The documents produced need to be shared with the stakeholders during the implementation of the capacity development plan. Exchange with other universities is compromised during this phase and has to be postponed to the second phase, but a potential is still existing for mutual exchange and capacity building.

4.4 Relevance

Globally the relevance of the interventions is considered as **Satisfactory (S)**:

The interventions proposed are aligned with the needs of the population, municipalities, government, responding to the lack of technical and thematic capacities, lack of budgets to implement mitigation measures, lack of capacities to manage floods at the scale of the river basin with a coordinated approach of the different stakeholders of the region.

A difference exists between the design of the project and the implementation phase.

A participatory and inclusive approach should have been followed for all the implementation, but civil society and communities were not involved in all the process as stakeholders but as beneficiaries.

An integrated approach combining capacity building, awareness raising, and infrastructure construction works should have been followed, but the implementation divided both components, focusing until now mainly on infrastructure construction.

The social vulnerability of the population in Polog region was not targeted by the project until now. An update of the FRMP has to be made accordingly.

The detail of the analysis is presented in the following answers to the questions of the ToR.

- *To what extent do the objectives of the "Improving Resilience to Floods in the Polog Region" programme respond to national needs and priorities?*

After the floods in 2015 and 2016, one of the priorities of MoEPP is to develop flood risk management plan at the scale of watershed in line with EU Flood Directive. The integrated approach followed by the programme to develop the flood risk management plan for the Upper Vardar River is in line with EU directives as well as the National FRM strategy and Action plan (output 4.1). Thus, the support of the project is aligned with the priorities of the ministry in charge of flood management.

Regarding the low means in human resources and the lack of budget to cover the needs of mitigation measures in the country, the support of the programme to MoEPP and to local institutions is relevant regarding the needs and priorities. After the floods of 2015 and 2016 in Polog region, and after the recovery phase, the needs of support to move from an emergency response approach to a prevention preparedness approach are confirmed.

- *Is the approach behind the development intervention appropriate to the problems to be solved?*

The approach defined in the project document is based on an integrated risk management with a participatory and inclusive approach to target the most vulnerable people. This approach is well adapted to respond the needs of regional flood risk management. Nevertheless, the approach implemented by the PMU was slightly different, with a participation of the stakeholders more as beneficiaries than leaders, and with an insufficient inclusion of representatives of the civil society and of the communities. Moreover, if the activities implemented are relevant individually in the region, the activities are scattered in all the region without a global strategy related to the risk assessment. The different interrelated components of DRM (hazard and risk assessments, urban planning, urban resilience measures, afforestation, river rehabilitations...) were not worked together.

For example, the mitigation measures were not defined globally at a river basin scale based on the hazard and risk maps. The population proposed some measures to the municipalities who forwarded the request to UNDP and its consultant for technical analysis. The documentation regarding this process applied to choose the mitigation measures is not available.

- *How consistent are the activities and outputs with the intended effects?*

Flood Risk Management Plan:

The list of measures mentioned in the FRMP following the Sendai Framework Priorities is relevant but need to be developed and detailed with concrete measures at the scale of each river basin based on the hazard and risk maps. This would allow stakeholders to have the overview of all the measures and risk reduction actions needed, prioritize them regarding their effectiveness and efficiency and create a multi-year action plan for the implementation of these measures. This work has to be handled by the Resilient Polog Network, including representatives of the civil society and of the communities.

As mentioned in the FRMP (June 2018) and in the social research report (PointPro), an update of the FRMP is needed to include social vulnerability in the risk assessment and target in priority the most vulnerable at-risk population.

Hazard and risk maps

The flood hazard mapping methodology is considering water level as the main criterion to characterize the intensity of floods. It should also consider the velocity especially for the torrents and for the near vicinity of the riverbeds in flood plains. In addition, the flood modelling in HEC-RAS is not including the results of the sediment study and should be revised to include the sediment transport aspects. This is important in large rivers in the plain as Vardar River and also in the steep rivers as in Poroj. The hazard maps could be improved in a next stage but the existing flood maps using 2D HEC-HMS, HEC-RAS modelling and LIDAR data are of good quality and accuracy.

Risk maps could be improved following the existing standardized methodology applied by CMC (E-Assessment). Relevant data concerning potential damages exist and have to be complemented with social vulnerability data.

Mitigation measures:

If all the mitigation measures implemented are relevant to reduce the risk, the cost-efficiency and cost-effectiveness of the measures are not proven. The choice of the mitigation measures implemented is not necessarily triggered by risk level, and vulnerability data.

Landslide stabilization measures:

In Staro Selo, the natural phenomenon is not a landslide but a rockfall hazard. If a risk reduction action is necessary regarding disaster risk reduction, it is not related to the flood risk mitigation strategy. Moreover, CBA made at feasibility study stage shows that this measure is not efficient as the one in Senokos-Lomnica,

Energy efficiency:

The effects expected to reduce the pressure on forest to produce wood as mean of heating is not necessarily understood and reached. The equipment provided were not necessarily adapted to the needs of the beneficiaries: inverters whereas the energy costs are high (energy crisis), inverters with a weak isolation of the windows, inverters whereas the municipality is planning a central heating system with geothermic resource, pellet stoves whereas pellets reached 3 times the price of local wood.

The documentation and the exchange with the interviewees don't reflect if the beneficiaries were aware about forest protection to reduce erosion in the upper part of the river basin. A flexibility during the implementation to fit the needs of the beneficiaries is needed. Considering Climate change effects, green energy resources should be preferred and encouraged.

DRR mainstreaming in urban planning and development planning.

The guidelines produced are very useful for the stakeholders which appreciated to have a real application of the methodology in a specific area in Kamenjane. The intervention was perfectly fitting the needs of the stakeholders.

Early Warning System

The first approach developed in 2021 was not aligned with the capacities of the local stakeholders and had to be reviewed in March 2023. The EWS concept proposed now is relevant regarding the needs of Polog region but, regarding the low capacities of HMS (2 hydrologists), needs to be complemented by a local community EWS based on local observations of water level and on thresholds materialized in the field. The drills realized in Pirok school and the 2 TTX with Tetovo and Bogovinje, were carried out to have a baseline before the implementation of the new EWS. The scenario for Pirok school was more a preparedness and emergency response exercise than an EWS (flash floods and landslides).

The chain of mechanisms including forecasting, information transmission, alert launching, alarm transmission with sirens and preventive evacuation needs a specific capacity building of all the stakeholders involved in the process. Drills will have to verify the effectiveness of the training course.

Capacity development plan and Transition plan

Both plans have to be considered together as the capacity building is the first mandatory step before transferring the responsibilities to the legally institutions in charge. As far, Civil society, local NGOs,

referees from the communities are not involved as stakeholders but as beneficiaries. They have a great potential to manage the awareness raising campaigns in the communities.

The timelines of both plans are not aligned and would have to be revised to consider for each component of DRM, the strategy to develop regarding the existing capacities, the capacities expected at the end of the capacity building development phase and the process to develop the capacities including ToT, on-job trainings approaches.

The capacity assessment is incomplete. The capacities of the national stakeholders as HMS, MoEPP – Water department, Ministry of Finance, CMC and DPR national offices, are not evaluated. The capacities of regional and local stakeholders are focused on Tetovo and Gostivar municipalities, CMC, DPR and firefighters' regional offices. Centre of Development of the Polog Planning Region, Local NGOs (as BIRC association), Diaspora, religious leaders and education professionals are not considered in the assessment.

An actors' mapping for each component of the DRM would be helpful to target all the relevant stakeholders and not only the municipalities.

- *Were the specific needs of vulnerable groups considered in the programme planning?*

The social research report established by PointPro recommended to realize a social vulnerability mapping to target in priorities the most vulnerable population in Upper Vardar River Basin threatened by floods. This recommendation was mentioned again in the conclusion of the FRMP (June 2018) but none of the updates of the FRMP bring information regarding that subject, so that social vulnerability is still not assessed for the Polog region.

The documentation explaining the choice of the mitigation measures in rural areas is missing. The Resilient Polog Network doesn't include representatives of the civil society and of the communities. According to the interviews handled with the municipalities and DRM consultant in charge of FRMP, the most vulnerable people were not specifically targeted to make a decision on the location of the mitigation measures.

According to the documentation received and reviewed, the programme didn't develop a strategy to collect information on the social vulnerability of the population in the different municipalities of Polog region, and to take this information into consideration for the FRMP and the choice of the implemented activities.

- *To what extent were the gender equality and social inclusion mainstreamed within the programme?*

The thematic of gender is managed as a specific independent topic and not mainstreamed in the implementation of the activities. The documentation received does not mention any specific strategy undertaken until now to empower and encourage the leadership of women in the different components of flood risk management or to pay more attention to them regarding their higher vulnerability in case of floods. The thematic was not considered in the risk assessment (FRMP).

A video for awareness raising was produced explaining that women are more vulnerable in case of floods. This video doesn't include key messages on how to improve the condition of women in case of floods.

A national consultant was hired in 2022 to identify female leaders and gender focal points in the relevant institutions and after consultative meetings targeted trainings on gender mainstreaming would be handled: capacity building of local government administration, CMC, DPR regional staff, review of FRMP and municipal and risk plans This gender inclusion arrives after the implementation of the activities and will be carried out afterwards as a specific topic.

Opportunities exist to support local NGOs and influential women as leaders of the EWS or awareness raising campaigns in the communities.

4.5 Coherence

Globally the coherence (internal and external) of the programme is evaluated as **Highly Satisfactory (HS)**:

Internal coherence (consistency, complementarity, and synergies):

- *To what extent is the intervention in line with the Swiss Cooperation Programme (SCP) North Macedonia (2021-24) and complementary to other Swiss interventions financed by SDC and SECO, in the same geographic region and other three thematic domains of the SCP?*

According to Switzerland's International Cooperation Strategy 2021-2024, North Macedonia as part of Eastern Europe countries is still a geographical priority for SDC/SECO and Climate Change (including risk reduction) is one of the four thematic priorities.

The integrated risk management approach proposed in the programme and the importance given to prevention and preparedness are key elements of the SDC guidelines on Disaster Risk Reduction.

Aligned with the priorities of the North Macedonian government and the Swiss International Cooperation strategy, the Swiss Cooperation Programme (SCP) North Macedonia 2021-2024 define 3 priorities:

- Democratic Governance
- Sustainable economic development
- Environment and sustainable public utility services

The programme "Improving Flood resilience in Polog region" is part of the Outcome 3 of the SCP 2021-2024 on Environment and sustainable public utility services, prioritizing resilience building in the communities and among vulnerable populations exposed to climate-induced natural hazards, through a better understanding of disaster risks, risk-informed mitigation measures and improved risk management and response capacities of local and central level authorities.

With the hazard and risk mapping (output 1.2), the development of the flood risk management plan (FRMP, Output 1.1), the development of an operational EWS (outputs 2.1 and 2.2), the implementation of mitigation measures in urban and rural areas (Outputs 3.1 and 3.2), the development of risk financing and transfer mechanisms and national strategy of flood risk management (Outputs 4.1 and 4.2) and the capacity building and knowledge sharing in flood risk management (Output 5.1), the programme is in line with the Outcome 3 of the SCP 2021-2024, with the Sendai Framework on DRR and the Flood EU directives.

With the creation of regional governance structures at the scale of the Upper Vardar River Basin, as Resilient Polog Network, and specific capacity development of the local institutions on Flood risk management, the programme is also contributing to Outcome 1 "Democratic Governance" promoting the participatory and inclusive approach in the implementation of the programme.

With the investments in hard infrastructures to reduce potential damages in case of floods, the programme is contributing to a sustainable economic growth of the region, in line with the objectives of Outcome 2 "Sustainable economic development".

Moreover, Climate, environment and disaster risk reduction integration is a transversal priority theme of the SDC 2021-2024, which means that this thematic is considered in the design of the activities to include mitigation or adaptation measures in the implementation.

In Polog region, the programme is complementing the following programmes supported by Swiss Funds:

- Water Supply in Gostivar (2020 – 2023; 4'500'000 EUR by SECO and 1'950'000EUR by KfW Development Bank).

The project aims to improve the water supply infrastructure of the Municipality of Gostivar while strengthening the institutional capacities of the Gostivar Water Public Utility. The overall objective of the project is to improve the living conditions and the economic opportunities of the inhabitants in the Municipality of Gostivar. The water supply system will be improved and made available at affordable costs.

"Improving Flood resilience in Polog region" provides to that programme knowledge on flood hazard to assess and prevent risk on the water supply network in Gostivar.

- Solid Waste Management in the Polog region (2018 – 2022; 1'900'000 CHF) – Phase 2 (start in 2023)

The overall project objective is to contribute to improved waste management services in the Polog Region and to reduce negative environmental and health impacts. It addresses immediate short-term remediation needs and lays the basis for future regional infrastructure investments.

This programme is improving the organization of the regional and local waste disposal systems, to limit garbage dumping in riverbeds. The efforts made in the frame of that programme in terms of waste management and awareness raising for environment protection is complementary to the cleaning of riverbeds realized by "Improving Flood resilience in Polog region" programme in the region.

This programme helps to reduce the anthropogenic impacts during the flood.

- Nature Conservation Programme (NCP) (2010 – 2024 ; 10'945'000 CHF) - exit phase until 2024

The Programme assists the country in the conservation of its outstanding biodiversity and natural ecosystems through promotion of their sustainable use and management. Implemented in the East of North Macedonia, the good experiments obtained by this programme on nature conservation and forest protection could be replicated in Polog region in continuity with the afforestation. PE "Nacionalni Sumi" supported by SDC in the frame of that programme was also involved in the afforestation works carried out in Polog region.

River basin conservation is one of the key measures to reduce erosion and prevent sediment transport to the lower parts of the river.

External coherence:

- *to what extent is the intervention compatible with and complementary to interventions of other actors (bilateral and multilateral donors, private sector, UN, SCOs, etc.) in the country, region and thematic field (complementarity and synergies)?*

Other donors are active in the field of Flood risk management or more globally on DRM in North Macedonia.

1. EU – IPA Project in Balkans and Turkey

Implemented by MSB, EU is working with MoEPP on capacity building for Flood Risk Management Plans, on transboundary FRMP and on EWS and Emergency response plans.

2. EU – EuropaRe Project

This project implemented by World Bank and funded by SECO, is working on risk financing and risk transfer and insurance in the field of Disaster risk management.

3. IUCN – ADAPT project: Nature based solutions for resilient societies in the Western Balkans

This project funded by SIDA and implemented by IUCN is promoting nature-based solutions as mitigation measures.

4. JICA - ECO DRR project - Capacity Building for Ecosystem Based Disaster Risk Reduction through Sustainable Forest Management

JICA is working with CMC national office to develop a disaster model of ecosystem-based disaster risk reduction (Eco-DRR), working on flood hazard mapping methodologies and Nature-Based Solutions.

JICA is also working with Public Enterprise of Forestry to improve forest management.

5. Drin FRM Project: Integrated climate-resilient transboundary flood risk management in the Drin River basin in the Western Balkans

Implemented by UNDP and funded by GEF this project is working on the hazard and risk knowledge, transboundary FRM and on community-based CCA and FRM.

6. GIZ project: Adaptation to Climate Change through Transboundary Flood Risk Management in the Western Balkans

GIZ is working with HMS on hydrological modelling and forecasting for EWS.

Synergies with “Improving Flood resilience in Polog Region” are possible and have to be explored, especially for:

- Harmonization of hazard mapping methodologies (GIZ, JICA),
- EWS (EU, JICA and GIZ),
- Harmonization of the FRMP approach to include in RBMP (EU -IPA Project)
- Afforestation (JICA)
- Nature based solutions (JICA, IUCN)
- Insurance model (EuropaRe),

According to the documentation received and the interviews carried out, no duplication have been observed for the programme, but synergies could be developed.

4.6 Effectiveness

Globally the effectiveness of the interventions is considered as **Unsatisfactory (U)**:

- *To what extent have the planned results been achieved at the different levels (see Annex 5)?*

The evaluation of the results is presented in detail regarding the indicators mentioned in the logframe in Annex 5.

Regarding the outputs, globally **around 2/3 of the indicators** are achieved or partially achieved at the time of the evaluation and considering the additional measures included in February 2022 in the additional credit.

The activities that are just at the beginning of their implementation are the following:

- Updating the Municipal Flood Defense Plans in line with FRMP (output 1.2)
- Implementation of the Early Warning System concept (output 2.1)
- Awareness raising of the communities on preparedness and EWS (output 2.2)
- Feasibility study in Poroj (output 3.2)
- Improvement of the capacities of governmental entities on flood risk management (output 4.1)
- Gender mainstreaming in all activities (output 5.1)

In parallel a lot of ongoing activities were launched at the end of 2022 and will quickly improve the achievement of indicators. But some other are still now out of the timeline of the current phase.

For example, the Vardar River rehabilitation projects in Gostivar and in Jegunovce are huge construction work that would need 1 full year of implementation. At the moment of the evaluation, both projects are at the stage of design projects and not yet benefitting of a construction permit.

Regarding the outcomes, without specific capacity building during the last 5 years, the ownership and increase of risk management capacities and on EWS expected for outcomes 1, 2 and 5 are not achieved. As the data on number of people protected by each mitigation measure are not available in the documentation received, it was not possible to assess the achievement of outcome 3. Indicators of outcome 4 are partially achieved, with specific DRR documentation developed, more than 300'000 USD of contribution from MoEPP and municipalities, and risk financing and risk transfer strategy developed.

- *Were authorities equipped with new knowledge to mainstream flood risk mitigation and DRR priorities in future municipal urban and other development plans (Outcome 1.2)?*

The authorities were invited to participate to a workshop to understand how to mainstream DRR in urban and development plans. Essential products of the programme, as hazard and risk maps and FRMP, were not known by all the participants at the beginning of the workshop, due to a lack of information and documentation dissemination and to the change of representatives for each municipality for the workshops organized with the Resilient Polog Network.

The workshop to mainstream Flood risk into urban planning was highly appreciated by the attendees as it was based on a practical application in Kamenjane and allow the stakeholders to understand the integrated risk management cycle. The guidelines produced constitute an important document of the project to replicate the DRR mainstreaming process in other urban and development planning.

Municipalities received valuable knowledge on that topic for future similar activities but need to have a specific capacity building and thematic support to be able to reproduce the process independently. This

capacity building must be included in the capacity development plan and the transition plan for all the municipalities.

- *Have institutions and communities in the Polog region enhanced their capacities and are they prepared for effective response, recovery, rehabilitation, and reconstruction (Outcome 2)?*

Concerning exclusively the capacities for response, recovery, rehabilitation and reconstruction, CMC, DPR regional offices of Gostivar and Tetovo participated to a drill in Pirok School. The scenario chosen for this exercise was a flash flood and the occurrence of a landslide affecting the school. The processes are more oriented to evaluate the preparedness and emergency response capacities than an EWS with anticipatory actions.

2 TTX with scenarios of river flood and flash flood were organized with Municipalities of Tetovo and Bogovinje who shared afterwards their experiences with other stakeholders in the region. The activity report is not available, so it is not possible to evaluate the results of this activity. The TTX and the drill in Pirok were handled to evaluate the capacities of the stakeholders before the capacity development, as a baseline. The documentation provided concerning the TTX don't refer to the existing hazard maps.

CMC and DPR regional offices of Gostivar were unfortunately not invited to be part of the TTX.

The capacity building of CMC, DPR and municipalities of Polog region have to be handled to enhance their capacities, according to the EWS concept. It should have been started at the early stage of the implementation of the programme.

- *Is the National legal and regulatory framework for flood risk management harmonized with the EU Flood Directive (Outcome 4.1)?*

The strategy developed for FRM for North Macedonia is relevant and follow the different steps of the EU Flood Directive:

- Preliminary Flood risk assessment (PFRA)
- Flood hazard maps and flood risk maps considering scenarios of low, medium and high probability and the assessment of the potential damages for the 3 scenarios.
- Flood risk management plan

This strategy was elaborated with the participation of the main national stakeholders during 4 workshops. An advocacy complementary work is needed with MoEPP to include this strategy in the River Basin Management plan as it is the only legal document recognized. The approval of the FRMP for Upper Vardar River Basin depends on this advocacy work with MoEPP.

- *What are the main programme accomplishments?*

Settlement of Resilient Polog Network and Joint Administrative Unit

Both bodies are crucial to work and make decisions on the scale of the river basin with all the stakeholders.

The initiative to create Resilient Polog Network started in 2018, and was officially established in 2019, but the Joint Administrative Unit was settled only in April 2023.

Those DRR bodies are essential structures to work on FRM and more globally DRM and to enhance the ownership, leadership and capacities of the members to progressively strengthen flood resilience in Polog region.

Unfortunately, the capacity development plan was not developed and implemented directly after the settlement of Resilient Polog Network but more than 5 years after the beginning of the programme implementation (2023). If COVID-19 could explain partially the delay to develop those DRM bodies, it doesn't explain why the efforts to develop the capacities of those governance structures were not carried out directly after the settlement of the Network in 2019 and postponed after the end of COVID-19 at the end of the implementation (2023). The splitting between the strengthening of the capacities of the 2 DRM bodies and the operational implementation of the mitigation measures and other hard components explains the lack of ownership/leadership observed among the partners at the moment of the evaluation.

The members were consulted during the implementation of the different activities (9 workshops with the Network) but not put in a position to train themselves to manage similar activities and especially mitigation measures implementation. This separation between soft and hard components is responsible for the lack of global understanding of the integrated risk management approach by the partners.

This choice not to work together capacity building of the DRR bodies and the construction and infrastructure works cannot be explained regarding the context. It should be attributed to the high number of turnovers of PM between 2019 and 2022 and their own perception of prioritizing the activities and of the way of implementation.

Moreover, any of those 2 bodies include representatives of the civil society and the communities but only municipalities, creating a lack of representation of the local population in FRM decisions.

For the future and the sustainability of the programme, the strengthening of the capacities and the leadership of these 2 bodies are essential.

DRR mainstreaming guidelines in urban planning and development planning.

The workshop and the guidelines developed for DRR mainstreaming based on hazard maps are a success and needs to be applied in Gostivar (GUP) and other places in Polog region. The development of these guidelines allows to focus more on prevention and to avoid potential future damages including flood risks as a basis constraint of the design of future development of the municipalities.

Bogovinska river rehabilitation:

The mitigation measure is well constructed and responds to the needs of the population of Bogovinje city. The effectiveness of this measure is recognized by the inhabitants.

Nevertheless, as mentioned by the CTA, the technical solution proposed by the national engineers is composed of concrete walls and riverbanks and doesn't include any nature-based solutions. This approach is not the current state-of-the-art of hydraulic engineering in Europe and need a specific capacity building to include less expensive bioengineering solutions, as proposed by the Holinger report.

Nature-based solutions – Holinger report

The Holinger report on Development of design concepts for Eco-friendly urban river flood management is a reference to develop the nature-based solutions inside all river rehabilitation projects. It should be also a basis to create specific capacity building on that subject for the future engineers of the country. universities are interested to develop such capacities in the frame of the existing curricula.

The principles developed in this report are also guidelines for the design of the Vardar River rehabilitation projects in Gostivar and Jegunovce, to learn from the experience of Bogovinjska river and improve the next mitigation measures.

- *What were the obstacles or constraints in the implementation process and the achievement of results? Put a particular emphasis on results related to institutional capacity building, the establishment of the 'Network for Resilience Polog', the 'intermunicipal DRR body' and the 'DRR dialogue platform'?*

Project management

The high **turnover of PMU staff and especially of Project manager** was a heavy constraint to implement the project according to the Project document and the Work plan defined. Between 2017 and 2023, 4 different project managers were successively in charge of the project with a good handover between the 2 first project managers but with long inactive periods without project manager of 8 months in 2021 after the leave of the 2nd project manager and of 5 months in 2022 after the leave of the 3rd project manager.

Many stakeholders noticed and suffered of silence and misinformation during those periods. Some of them requested to be informed on the progress of the programme, requesting for some of them appointments with UNDP but without any success.

Regarding the established set-up of the programme in the project document, the risk management of the project, the hierarchy should have addressed and tackled these issues immediately, at least:

- to maintain the network and the relationship with the main stakeholders,
- to ensure the leadership in replacement during the vacation of the Project manager position,
- to propose immediately mitigation measures including a review of the work plan to the Project Board for approval.

These periods coincide with a significant slowdown in the implementation progress (December 2020 to August 2021 and April to September 2022)

A general appreciation of a **lack of information, coordination or cooperation** is mentioned by many important stakeholders, as well in Skopje than in Polog region. The location of the PMU in Skopje (excepted 1 person) and not in Polog region is a constraint to maintain a good network with all the stakeholders in the field. The lack of information sharing (hazard and risk maps, FRMP...) was also frustrating for some stakeholders.

Moreover, the delay to tackle issues with the stakeholders, are sometimes triggering conflicts. This is for example the case in Shipkovicica and Staro Selo. A more reactive risk management of the project implementation is needed.

COVID – March 2020 to April 2021

During COVID, the project was impacted because of the travel restrictions for international consultants. This was the case for CTA and GHi especially. Inside the country, COVID created difficulties to reach the stakeholders as many were sick and without replacement.

The cumul of a COVID and PM vacancy during December 2020 to April 2021 explains a delay of 6 months on the overall timeline of the implementation.

Lack of participatory and inclusive approach, lack of capacity building and segregation of hard and soft components

The Resilient Polog Network was established in 2019 and the Joint Administrative Unit in April 2023.

Both bodies should have been supported right the beginning of the programme implementation by a comprehensive capacity building strategy including direct applications in the implementation of the hard components of the programme.

It would have improved the ownership and leadership of the municipalities adapted to their role and responsibilities, in a long-term process and enhance the sustainability of the programme.

The lack of stakeholders' ownership, the absence of consultation and involvement of civil society and communities' representatives in the network and a segregation of hard and soft components affected the implementation in the field.

The experiences in Shipkovicica show that some details of the construction (compatibility of the river rehabilitation with existing road access to the village) should have been discussed with the communities at the stage of project design or before the start of the construction work to avoid the current blockage of the construction.

The current conflict with National Park Sharr Mountain regarding the opening of a new road in the protected forest to access the site of rockfall in Staro Selo is also another evidence of a lack of information/coordination with the communities and main stakeholders before the start of the construction work.

Municipalities played their role of facilitator during the construction work with the communities but were not involved in the management of the measures, i. e design of the project, adaptations requested by supervisor, ToR for the construction companies, Tendering process, construction work, etc. A more transparent process including a co-lead of the mitigation measures implementation and a better information sharing would have helped to reduce the potential of conflicts during the implementation.

A UNDP staff member should be assigned as referent for each mitigation measure to work in co-lead with the municipality and manage the implementation following a CSPM approach with all the local stakeholders including the communities.

High dependence of the project on DRR/DRM outsourced resources, national and international consultants, lack of DRM specialist inside PMU.

The overall integrated flood risk management need a strong coordination of the different components and of the different consultants hired for each component. The technical and thematical approval of the strategies, products and documents developed in the project has to follow the same process to control the congruence of the different studies regarding an integrated risk management approach.

CTA role and responsibilities changed and were not clear during all the duration of the implementation. The approval of the DRM components of the project implementation is not well defined between CTA, DRM consultants, technical consultants. This can explain the scattering of the different components in the region, as well as the turnover of PM during the implementation (different understanding of FRM).

Regarding the importance of the project and the investments engaged, hiring a DRM expert inside UNDP PMU would have deeply improved the effectiveness of the implementation, with a support of the current CTA as backstopper.

Lack of budget and HR in the stakeholders

The lack of budget and human resources is an issue as well for small municipalities, as for Centre of regional development, MoEPP, and MoF. They are still dependent on donors for big projects.

Political sensitive context:

The context is sensitive to political issues, with competition between some of the municipalities and rivalries. A specific attention had to be paid on the neutrality of the 2 DRR bodies to guarantee an equity of treatment of all the municipalities. But as direct beneficiaries, municipalities, during elections in 2022 were not considered by the stakeholders as a factor of blockage for the delivery of construction permits.

A CSPM approach would help to monitor the potential impacts of political aspects on the implementation of the programme and to find out the adapted mitigation approach.

At the national level, CMC and DPR are in 2 different ministries and political discussions are ongoing to have them both in a same ministry. This could potentially affect the implementation of the EWS.

- *To what extent has the programme instigated systemic improvements in DRR management system in the Polog region, including the coordination between the 9 municipalities and other relevant institutions?*

The establishment of the Resilient Polog Network and the Joint Administrative Unit are key elements to work on coordinated mechanisms at the river basin scale with all the relevant stakeholders of the 8 municipalities. With the choice of PMU to postpone the capacity building and the information dissemination at the end of the project (half 2023), the improvements in a systemic integrated DRR management in Polog Region cannot be observed in the field. After 5 years of implementation, it is crucial for the sustainability of the project to focus on capacity development to improve progressively the ownership and leadership of the stakeholders. An on-job training and ToT approach has to be handled to achieve the first steps of change. This should have been started right after the settlement of the 2 DRR bodies, earlier in the programme implementation.

- *Has the introduced DRR model of work been effective i.e. avoiding overlaps with the existing structures, relying on local capacities and ensuring local ownership*

As legal structure recognized at the regional and national levels, the Centre of Development of the Polog Planning Region has low capacities but an important institutional role for inter-municipalities projects. Based on this, the Centre of Development of the Polog Planning Region must be included in the Resilient Polog Network to be part of the decisions made on flood risk reduction and handle one or the other mitigation measure if more than 3 different municipalities are concerned.

As far, the **Centre of Development of the Polog Planning Region** was invited to participate to some workshops of the Network but with a passive role and not aligned with the legal responsibilities of this regional structure.

A point of vigilance is needed regarding this specific structure and its role regarding the new Resilient Polog Network, to **avoid subsidiarity**. Additional budgets are expected to be allocated to the Centres of regional development in North Macedonia by the Ministry of Finance in the future (5 years) so increase

the interest to involve them in the Flood risk governance in the region enhancing the potential of risk reduction investments.

The Resilient Polog Network is managed by UNDP until now and the ownership of this new structure with competing municipalities and different entities with important differences in technical and financial capacities is not yet reached and challenging. The **shift of leadership from UNDP to Joint Administrative Unit will be helpful to improve the ownership of the stakeholders in the Resilient Polog Network** and encourage them to work together implementing a common regional flood risk management strategy. As the Joint Administrative Unit will be settled in Tetovo municipality building, it is highly recommended to ensure the independence of the new DRR body established regarding Tetovo municipality.

The ownership of the new created structures will be possible only with the implementation of a long-term capacity development plan aligned with the specific roles and responsibilities of the stakeholders and their capacities and with a progressive shift of leadership during the transition phase (min 1 year)

The capacities of the 8 municipalities of the Resilient Polog Network are disparate. Municipalities of Tetovo, Gostivar and Bogovinje have human resources dedicated to urbanism and civil engineering whereas smallest municipalities don't have such capacities.

The capacity assessment made in July/August 2022, as well as the socio-economic assessment were only made for Municipalities of Tetovo and Gostivar, CMC, DPR regional offices and firefighters. The **assessment of the capacities within the other municipalities was not established** so that the capacity development plan and the FRMP don't take into consideration the needs of capacity building of the smallest municipalities of the Polog region and the most vulnerable areas of the region.

A specific attention has to be paid to the **equity of treatment of the 8 municipalities** to develop the adapted capacities regarding the needs and the existing capacities of each municipality and to have access to the available budgets to invest in risk reduction. Regarding the objectives of SDC, **the most vulnerable municipalities have to be targeted in priority** by the project (SDC components) but most of the mitigation measures and risk reduction actions were implemented in the 3 municipalities of Bogovinje, Gostivar and Tetovo, without considering the risk exposure of the municipalities and their capacities to cope with natural disasters.

Municipality	Number of inhabitants	List of the measures within the project
Bogovinje	22'906 [2021]	Bogovinjska river rehabilitation (1,2 km) Landslide Jelovjane and Pirok Excavator Energy efficiency – pellet stoves - households Afforestation (6 ha + 3 ha in 2023) DUP Kamenjane Drill in Pirok School (EWS)
Brvenica	13'645 [2021]	Excavator pellet central heating stoves – 3 schools
Gostivar	59'770 [2021]	Vardar River rehabilitation (9 km) Stormwater Network cleaning (4,4 +2,2 km) Multi-purpose sport terrain IT equipment for CMC, DPR Excavator Energy efficiency – elementary school – green roof Urban runoff study
Jegunovce	8'895 [2021]	Landslide Staro Selo Vardar river (8,5 km) Energy efficiency - 18 inverters in 6 schools
Tearce	17'694 [2021]	Excavator Energy efficiency – design for a school
Tetovo	84'770 [2021]	Shipkovicva river rehabilitation Landslide stabilization HEC Pena Landslide stabilization Bozovce Poroj and Gjermo feasibility study & stabilization New stormwater pipeline (1,1 km) GUP Tetovo Energy efficiency – green roof Kindergarten IT equipment of CMC and DPR regional offices Cars for field intervention Equipment for firefighters Excavator TTX for CMC and DPR and drills with Bogovinje Urban runoff study
Vrapcishte	19'842 [2021]	Landslide stabilization Senokos -Lomnica Excavator Energy Efficiency
Zelino	18'988 [2021]	Excavator Landslide Stabilization Dolna Lesnica Energy efficiency – 28 inverters in Trebosh school

Source: www.citypopulation.de – census 2021, Progress reports – List of measures per municipality

The DRM model developed in FRMP by PointPro and shared in one workshop with the main stakeholders is not yet operational in terms of flood risk governance neither at the national level nor at the local level, because of the lack of adapted capacity building activities until now.

The capacity development plan and the transition plan developed have to be reviewed and complemented considering the vulnerability and capacity assessment of all the municipalities. A long-term capacity building programme with practical applications in the different municipalities would be necessary to allow a change of mindset and practice in local flood risk management in the Resilient Polog Network.

The Resilient Polog Network has to be enlarged to include representatives of the civil society (local NGOs, local media, women organizations...) and of the communities (influential referees of the communities as religious leaders, teachers...) in the decision-making process. The participative and inclusive approach is only possible with this enlargement of the official Resilient Polog Network to the civil society.

A review of the FRMP with this enlarged Resilient Polog Network has to be handled based on the risk assessments of all the communities so including the vulnerability and capacities assessments of all the region.

- *What participatory mechanisms were applied? To what extent did the programme reach the intended vulnerable groups?*

The Resilient Polog Network don't include civil society and communities. The participation of the communities is mostly reduced to a presentation of the mitigation measures before the construction work and in case of a specific issue during the construction works.

Most of the time, the interactions with the communities were handled by the municipalities (Mayor) without specific mechanisms to target most vulnerable people at-risk.

An example in Bogovinje, the municipality request to all the population to manifest their interest to be a beneficiary of the energy efficiency equipment. The first arrived were the first served, without considering specific selection criteria.

Social vulnerabilities were not assessed in the region and in the local scale of the villages. A disparity between the municipalities exists and need to be assessed and documented as a guideline to target the most vulnerable.

- *How effective were the interventions in contributing to the results? If occurred, to what extent can these be attributed to the intervention?*

A flood risk management plan for the Polog Region is established in accordance with the EU Flood Directive and DRR principles. New approach of integrated risk management and multi-stakeholders steering units were developed thanks to the intervention.

Urban resilience is improved through implementation of priority state-of-the-art flood risk mitigation measures (SECO) – but need to be checked after a flood event.

National legal and regulatory framework for disaster risk reduction is improved in line with the Sendai Framework and the EU Flood Directive, and risk financing and risk transfer mechanisms are conceptualized. The FRM strategy is developed and in line with the EU directive and consolidated with all national stakeholders, MoEPP is in charge to approve it upon the approval of Water Law.

Risk financing and risk transfer mechanisms are conceptualized and advocated to become part of the national-level flood risk mitigation strategy. The feasibility regarding the evolution of the context and the next elections in 2024 needs to be assessed.

4.7 Efficiency

Globally the efficiency of the programme is assessed as **Unsatisfactory (U)**

- *Were the interventions related to flood risk mitigation prioritized correctly, implemented cost-effectively and in a timely manner?*

The prioritizing of the mitigation measures is not based on the hazard and risk maps globally but is based on requests coming from the communities, forwarded by the municipalities, and assessed technically by the DRM consultant. The technical effectiveness and efficiency of the measures to reduce the risk are not considered to choose and prioritize the measures. The social vulnerability is not considered in the evaluation of the efficiency of the measures.

Some landslides stabilization measures are not clearly justified regarding the investment costs and the number of people threatened. The cost-benefit analysis made at the feasibility stage show that the measures in **Staro Selo and Senokos-Lomnica are not efficient** (<1) and that only 4 over the 10 measures evaluated and proposed in the Feasibility Study are efficient. The choose to implement the 7 landslide stabilizations despite these CBA results is not explained in the documentation received.

An **optimization of the technical solutions** to rehabilitate the riverbeds is possible to reduce the investment costs, including as far as possible nature-based solutions instead of concrete constructions when hydraulically possible.

Many consultants are hired for all the process of implementation, leading to a **dispersion of the responsibilities and additional costs**. For afforestation, some stakeholders could manage locally all

the steps of the work. For landslide stabilizations, sub-contractors should be forbidden to encourage local market and intermediates for construction works. External Supervisor hired by UNDP PMU should be close to the location of implementation of the construction work, to be present frequently in the field to supervise and control the quality of the construction.

Concerning the timeline, a lot of disruptions occurred during the technical documentation establishment to respond to the requirements of the legal institutions, during the construction permits, during the construction work with blockage of some communities.

A better quality control and a stronger monitoring system following a CSPM approach is needed.

- *Was the development intervention implemented conducive to reach intended results?*

The approach mentioned and agreed by SDC/SECO in the ProDoc was not followed during the implementation. **Participatory and inclusive approach to reach the most vulnerable groups were not handled until now by the project.**

- *Is the monitoring system suited to track progress of the different programme components in a systemic manner?*

The risk management is not sufficient to allow a quick and adapted reaction to mitigate the risk. A more specific CSPM approach has to be handled by the person in charge of the activity implementation.

The reporting on the progress of the implementation is made regarding the outputs but not in line with the indicators. The work plan is presented once a year and for all the year. A more detailed planning is needed (quarterly and monthly for the implementation) and has to be shared in the progress reports. The expenditures were presented by outcomes and are not documented by outputs but it's not easy to have all the total amount per activity. It would be useful to have the transparency for all the activities and especially for the total costs of the mitigation measures. An alignment between timeline, expenditures, budgets, and progress reporting should be realized.

2 progress reports are missing (mid-2018 and mid-2022)

Project boards were not organized every year as mentioned in the ProDoc but 4 were organized in 6 years, according to the minutes received from UNDP. All decisions including a change of timeline, or a change of budget affectation should be decided by the Project Board. The cost extension of SDC contribution was not decided during the project board meeting.

- *Has the programme's team and engaged experts had the right skills and expertise to implement this complex programme?*

A DRM expert is missing in the PMU to allow a good coordination of all the DRM components in an integrated manner. A clear process to approve technical and thematic products is necessary. Now the responsibility is shared between external technical consultants, CTA, internal DRM staff. As the image of Switzerland is associated to the quality of the construction works, the quality control has to be handled by internal staff of UNDP. Also, for the documents produced by DRM consultants, a review and formal approval of the coherence and the relevance of the documents is needed by a DRM expert inside PMU, or now by CTA.

A clarification of the role and responsibilities of CTA is necessary accordingly.

The ToRs of all the PMU staff members are not clear regarding the responsibilities for the different activities of the project. The ToRs are formulated to monitor and supervise the implementation and not as responsible for the implementation.

Many different consultants are hired to implement the activities. Local consultants in Polog region should be empowered if they can provide adequate capacities to implement the activities. (PENF, National Park Sharr Mountain, BIRC...).

For gender mainstreaming, the ToR of PM mention the responsibility for gender mainstreaming in the activities of the project. At the same time a national consultant is hired now to make gender mainstreaming in project activities with capacity building of the stakeholders. This duplication has to be clarified.

The abilities of the stakeholders have to be better assessed to promote them as implementers instead of external consultants.

A communication staff member was part of the PMU for a long time. After the end of the writing of the draft evaluation report, new documents were added to the SharePoint by UNDP (13.06.2023). The videos provided are mainly to document the results of the hard components (before and after the construction work) and few of them (3 infographics) are made for awareness raising, without any explanations related to the strategy for information dissemination. The role of this position regarding the needs of the implementation has to be clarified and targeted to enhance awareness raising of local populations.

2 consultants were hired without the adequate competences or expertise. This was the case for Poroj study (technical skills) and for EWS (contextual skills in Covid period). It had consequences in terms of delays for important components of the programme. The EWS concept adapted to the local context was just delivered in March 2023 (2 years of delay) and the Poroj study is not yet awarded to a new consultant.

A particular attention is needed during the writing of the ToRs to specify all the competences requested, the tasks, expected results and the specificities of the context to better target the relevant consultants. An approval of the ToR by CTA before the publication of the tender would avoid this kind of issue.

For construction works, the consultant hired is far away from the location of the construction work which is not appropriate for a good and frequent quality control. The hiring of subcontractors by construction companies should be forbidden and local companies should be supported to reply to the tenders.

- *How appropriate were programme management, steering and decision making to address issues? Were problems identified in time and managed appropriately?*

The risk management of the project is not sufficient regarding the challenge faced with several mitigation measures ongoing at the same time in the field and regarding the political sensitive context. Also, in absence of participatory approach with the communities before the construction, risks of conflicts with the communities are higher and need a specific attention and a good and appropriate reaction.

The internal risk management regarding HR issues, Project Board meetings and communication with the stakeholders didn't give satisfaction and were not handled effectively. Mitigation measures to handle the turnovers issues were not convincing and not effective. A closer and stronger management system has to be developed and presented to Project Board members for approval.

Regarding the PMU, a closer collaboration and coordination with MoEPP, CMC, and all municipalities in Polog region are needed to allow a quick process of construction permits delivery. All are partners of the project and committed to facilitate the implementation of the project.

4.8 Impact

Globally the impact of the programme is evaluated as **Satisfactory (S)**

- *Which positive, lasting effects and behavioural changes of the main target groups were reached?*

As capacity building and awareness raising is still at the beginning of its implementation it was not possible to evaluate the effects of the project on the communities. We could only notice that they feel concerned and commit when the discussions are near their house or in their village.

- *Which unexpected and unintended positive and negative (side) effects have occurred and in which programme areas?*

The quality of construction could lead to a side effect in terms of reputation. It is important to control and to ensure that the objective of protection is guaranteed.

The ownership of the stakeholders was constrained by a lack of information sharing and inclusion, generating for some of them a frustration not to be part of the management.

Conflicts emerged during the implementation of mitigation measures because of an insufficient communication with the communities or the important stakeholders. A CSPM approach is needed.

- *What real difference have the programme's interventions in this short duration made to the beneficiaries? Have woman and men equally benefitted?*

It was not possible to assess if the project has made difference for the communities. For the municipalities of Tetovo, Gostivar, and Bogovinje, an ownership and a good understanding of the need

of DRR mainstreaming in urban planning and of mitigation measures were observed. Budgets were allocated by the municipality of Gostivar for further riverbed cleaning works. The distinction of the gender criteria was not possible.

- *Is the actual short-term impact caused by the development intervention in line with the targeted impacts? If not, could this have been prevented/ addressed? How?*

The evolution of the municipalities of Gostivar, Tetovo and Bogovinje is aligned with the expected impacts.

- *To what extent are key stakeholders satisfied with the implementation and results of the programme in general and the partnership support in specific, and what issues remain to be tackled?*

All stakeholders interviewed are highly satisfied of the first phase of the programme. They acknowledge Switzerland, as the main donor active in the field of DRM in the region, and as they don't have the financial and technical capacities to handle such big projects.

Nevertheless, many stakeholders were requesting to be more involved in the progress of the project implementation, to receive more information on the achievements of the programme and to benefit from the experience in other municipalities in the region.

An accent should be put on **information sharing, coordination, and cooperation** with the local stakeholders. The new Resilient Polog Network and Joint Administrative Unit will help for information sharing.

- *What are the key lessons learnt from the programme implementation?*

The participatory and inclusive approach is essential in a context highly sensitive to local political aspects. It would help based on a CSPM approach to mitigate the risks and facilitate the implementation.

The DRR bodies were established but the capacity development was postponed, separating soft and hard components. The consequence is a lack of ownership of the partners and a fragility of both bodies settled at the end of the first phase of implementation.

The quality control for the construction works is essential considering the potential impacts in terms of reputation for Switzerland and UNDP. Use of the funds should be optimized by reducing to the essential the intermediates in the implementation and promoting capacities of local stakeholders.

A strong programme management unit, with a DRM expert inside the PMU and a stable PM with strong coordination skills, is needed to control the coherence of the activities proposed by different consultants regarding the expected results and the integrated risk management approach. Also, regarding the context, risk assessment for the implementation of the programme has to be strengthened to allow quick reactive adaptations during the implementation and an optimization of the work plan.

4.9 Sustainability

Globally, the sustainability of the project is evaluated as **Unsatisfactory (U)**.

Sustainability is based on the ownership of the stakeholders regarding their legal roles and responsibilities and the opportunities to scale up implemented activities which provided good results in Polog region.

A lack of involvement of the main stakeholders during the implementation as DRR actors, but more in a passive role was observed.

A lack of document and information sharing was noticed: At the end of the programme implementation (Phase 1), hazard maps, risk maps and FRMP are not distributed to the municipalities, and capacity building is not yet engaged accordingly. The municipalities just remember having seen the maps during a workshop. Only people involved in the workshop on DRR mainstreaming in urban planning were aware of the need of hazard maps for DRM at the local level.

The process of implementation of mitigation measures is not following a participatory and inclusive approach:

- Requests were made by the population to the municipality who shared them with the Resilient Polog Network. Resilient Polog Network includes only official members of the municipalities,

and the people who participate to the workshops are changing so that the overall FRM scheme is not understood.

- The representatives of civil society were not involved in the development of the mitigation measures and in the decisions made to choose them.

The Resilient Polog Network and Joint administrative Unit were established in 2019 and 2023. The capacity building was not developed just after the settlement of the Resilient Polog Network but postponed at the end of the programme implementation (Q3 2023).

The dissociation of capacity building and the implementation of the activities explains the lack of ownership and understanding of IRM mechanisms based on risk maps:

Hazard maps, FRMP, mitigation measures design, construction permits, bidding procedures, supervision of construction work, updating FRMP, DRR in urban planning... All these activities should have been applications for the flood risk management mechanisms.

The capacity development plan is proposed for the period 2023 to 2027 so after the end of the programme. The transition plan is possible only after a real capacity building of the institutions, following an on-job training and ToT approach. The transition plan is based on the results of the capacity development plan so that the timeline for the transition phase has to be reviewed and detailed.

The awareness raising of communities is just planned in 2023 in Poroj and Gjerme only. Enlarging the activity in 2023 to all the communities in Polog region is essential, developing a regional communication and awareness raising strategy for all Polog region.

- *Can the planned results at all levels of the programme be achieved within the remaining time (end of 2023)? If not, what do you recommend to enhance the sustainability of the effects of the intervention?*

A 6-month extension without additional costs is needed to complete the following activities:

- Capacity building of the stakeholders and awareness raising of the communities, sharing all the information developed since the beginning of the project and in priority hazard and risk maps and FRMP.
 - Quality control of all the mitigation measures realized with adaptive measures if needed.
 - Implement EWS concept, with a focus on local observations in complement of technical approach (postpone HMS capacity building in forecasting and modelling)
 - Capacity building of the municipalities to manage mitigation measures with practical application with Vardar River rehabilitation works in Gostivar and Jegunovce
 - Enlarge the Resilient Polog Network and empower it.
 - Vulnerability assessment of the Polog region and review of the FRMP to include this criterion.
- *What evidence indicates that short-term impact(s) achieved so far will remain after programme completion? If not, what is necessary to reach a sustainable impact, and does the programme adequately address/manage necessary conditions? Which major factors might enhance the effects achieved or prevent them from continuing?*

A full implementation of a long-term capacity development plan is needed to reach a sustainable impact, followed by a transition phase, as exit phase. This capacity development should be based on ToT and on-job training with practical applications.

The empowerment of the Resilient Polog Network is the key to the sustainability of the project.

- *What are the main risks for the programme to be successful? Have the partner institutions and involved sections of the rural and urban population embraced the aims and activities promoted by the programme (ownership)? Was the approach inclusive (i.e., also integrating the vulnerable groups in key decisions making or awareness building)?*

The main risks are a lack of budget and a high turnover in the municipalities and in the Resilient Polog region. Political divergence inside the Resilient Polog region could also be a major risk to develop the

network as decision making committee. The inclusion of the civil society is the key to tackle vulnerability aspects and consider them in the FRMP.

- *Are mechanisms in place, for partner institutions and involved stakeholders (target groups) to continue the activity independently (of existence of financial resources) and adjust their strategies to changing conditions? Have they strengthened their own problem-solving capacities (institutional and technical capacity)?*

The institutions are not ready yet to tackle to develop specific strategies to find financial resources, a second phase would be needed for this. Some municipalities started to create an environmental budget including flood risk reduction. This is a good starting point to develop the financial mechanisms at the municipal and regional level afterwards.

- *What are the conditions for the programme to be scaled up horizontally and vertically? Has the programme started to work on a resources mobilisation strategy? Which actors should be involved in such strategy to be successful?*

A horizontal replication is already possible in Polog region for afforestation and for DRR mainstreaming in urban planning, and with support for mitigation measures and nature-based solutions.

For vertical up-scaling, a national operational DRR platform would be helpful to institutionalize the risk financing road plan and to approve the national FRM strategy. Such up-scaling don't seem possible as far regarding the 2024 elections and political issues to settle an operational DRR national platform.

5. Conclusions

Based on the findings, the evaluation team has ranked the evaluation criteria using the OECD Development Assistance Committee Evaluation criteria as followed:

- **Highly satisfactory (HS)** – there were no shortcomings in relation to the intervention’s relevance, coherence and efficiency; the objectives at outcome level were fully achieved or exceeded and are likely to have a significant impact, which will be sustained in the future.
- **Satisfactory (S)** – There were moderate shortcomings in relation to the intervention’s relevance, coherence and efficiency. Most intended objectives at outcome level were achieved (or for mid-term are likely to be achieved). The likelihood of achieving intended impact or sustainability of the intervention’s benefits is reasonable.
- **Unsatisfactory (U)** – There were important shortcomings in relation to the intervention’s relevance, coherence and efficiency, in the achievement of its objectives (N.B. if outputs are achieved, but do not result in the expected outcomes, consider rating relevance and/or effectiveness as unsatisfactory). The likelihood of achieving intended impact or sustainability of the intervention’s benefits is questionable.
- **Highly unsatisfactory (HU)** - There were very severe shortcomings in relation to the operation’s relevance, coherence and efficiency. Intended objectives have not been achieved, achievement of intended impact or sustainability of benefits are highly unlikely.
- **Not assessed (na)** – The criteria statement cannot be assessed. Please explain and provide details in the justifications section.

RELEVANCE

Rating	Satisfactory (S)
Observations	<p>The project is relevant to the local context, tackling complementary components of Flood risk management at central, regional, and local levels through SDC and SECO components.</p> <p>The project interventions are relevant regarding the needs and the vulnerability of the local population after the floods of 2015 and 2016 in Polog region, the low technical and financial capacities of the municipalities and the lack of coordinated river basin management.</p> <p>The integrated approach of the Flood risk management plan developed in the programme is aligned with the EU directives which is a priority of the MoEPP.</p> <p>A discrepancy exists between the project design and the implementation. As the project design was considering a participatory and inclusive approach, the implementation shows a lack of inclusion of the civil society and communities. Some interventions are partially not responding as far to the needs of civil society in terms of awareness raising and results of the mitigation measures (Shipkovicva, Senokos-Lomnica, Staro Selo)</p>

COHERENCE

Rating	Highly Satisfactory (HS)
Observations	<p>The programme is highly coherent with the Switzerland's international cooperation strategy 2021-2024, considering Eastern Europe Countries as geographical priority and Climate Change (including risk reduction) as one of the four thematic priorities. The programme is also aligned with the SCP of North Macedonia 2021-2024, as part of Outcome 3 - -Environment and sustainable public utility services and contributing to democratic governance and sustainable economic development. Complementary with other programmes of SDC supporting Water supply, Waste management and Nature conservation, the DRR approach of the programme is aligned with Sendai Framework and the SDC DRR guidelines, promoting prevention and preparedness and integrated risk management. This programme is a successful innovative experience of combining SDC and SECO components.</p> <p>Externally, the interventions of the programme are not duplicating the programme of other donors in North Macedonia in the field of DRM. Synergies could be developed as followed:</p> <ul style="list-style-type: none"> - Harmonization of hazard mapping methodologies (GIZ, JICA), - EWS (EU, JICA and GIZ), - Harmonization of the FRMP approach to include in RBMP (EU -IPA Project) - Afforestation (JICA) - Nature-based solutions (JICA, IUCN) - Insurance model (EuropaRe),

EFFECTIVENESS

Rating	Unsatisfactory (U)
Observations	<p>The effectiveness of the programme is unsatisfactory.</p> <p>The approaches/strategies during implementation are not including civil society and communities in a participatory and inclusive approach. The interventions are individually all relevant and effective but scattered in the region and separating the hard and the soft components. The capacity development and awareness raising essential to build local governance on flood risk management were postponed at the end of the implementation and are still insufficient until now.</p> <p>At the moment of the evaluation 2/3 of the indicators are achieved and many activities are now on track but some still out of the timeline (Vardar River rehabilitation in Gostivar and Jegunovce) and would need additional time to be completed.</p> <p>Constraints due to the lack of a dynamic and operational DRR platform reduce the chance of an approval of the National FRM and Action Plan during Phase 1. A lack of ownership and political sensitivity would also limit the opportunity to implement the road map for risk financing and risk transfer and insurance.</p> <p>Transversal themes as gender are not mainstreamed in the project but implemented as specific topic after the implementation of the activities.</p>

EFFICIENCY

Rating	Unsatisfactory (U)
Observations	<p>The efficiency of the programme is unsatisfactory.</p> <p>The interventions are not necessarily cost-efficient. The implementation relies heavily on national and international consultancies to achieve the results. Some activities should be implemented by capacitated local stakeholders with less subcontractors.</p> <p>The efficiency of the mitigation measures/landslide stabilization is not proven (Staro Selo, Senokos Lomnica) but it was chosen to implement those measures. Technical optimizations of the mitigation measures including nature-based solutions are possible to reduce the investment costs (Bogovinjska river).</p> <p>The energy efficiency measures implemented in 2022-2023 are not all efficient regarding the change of the context, with the energy crisis (price of pellets, price of electricity).</p> <p>Regarding the timeline, many disruptions were observed during all the implementation delays due to construction permits, miscommunication and coordination, high turnover of the PMU staff members with long periods without PM and slow implementation, delays in construction works.</p> <p>Regarding the management of the project, the monitoring of the risks is not sufficient to allow a quick and adapted reaction to mitigate the risks. The high turnover of staff in PMU was not handled quickly and had repercussions on the workplan, Project board meetings were not organized to make decisions and inform the main stakeholders, a lack of reactivity is also observed in the field in construction works to solve the issues with the communities. The reporting in progress reports is not aligned with the indicators and financial details were provided by outcomes before 2022. Now a more transparent financial reporting is available after 31.12.2021.</p>

IMPACT

Rating	Satisfactory (S)
Observations	<p>The impact of the programme is satisfactory.</p> <p>Some interventions are expected to provide higher level effects:</p> <p>The guidelines developed on DRR mainstreaming in urban and development planning are valuable and could be up-scaled at the national level for further implementation in the country.</p> <p>FRMP as part of the RBMP and aligned with the national FRM strategy developed for North Macedonia could be replicated once approved by MoEPP.</p> <p>Hazard and risk maps have to be shared with other stakeholders in the Polog region and afforestation works could be replicated to mitigate erosion and landslides based on erosion and landslide maps.</p> <p>Finally, Nature-based solutions concepts developed in Polog region could have a great impact at the national level with application on other mitigation measures.</p>

SUSTAINABILITY

Rating	Unsatisfactory (U)
Observations	<p>The sustainability of the programme is unsatisfactory.</p> <p>The stakeholders are motivated to continue activities but need to have a specific capacity building to be able to manage similar activities. During the first phase of implementation until now, the partners were involved more as beneficiaries than as leaders. Their ownership is expected to increase after the capacity building.</p> <p>The lack of financial resources is variable from one municipality to another and will be a key element to tackle during the end of the phase to allow the sustainability of the programme. MoEPP is also concerned by low financial capacities and is advocating to MoF to reach additional budgets. A hope exists to have more budgets allocated to Centre of regional development from MoF in the next years (modification of the law).</p>

6. Recommendations

The evaluation suggests that the project on oncoming future phases needs to undertake the following measures:

Overall recommendation

1. 6-month no-cost extension

Regarding the progress of the implementation in May 2023, a 6-month extension of the timeline is needed to achieve the expected outputs, without additional costs.

This extension will allow the PMU to implement **a coherent and consistent 1-year capacity development plan** (from June 2023 to June 2024) to enhance the ownership and the leadership of the main stakeholders, to develop the Resilient Polog Network and Joint Administrative Unit, implement the EWS concept and establish the feasibility study in Poroj following an integrated risk management approach., complete the ongoing construction works in Vardar River and for landslide stabilization with the expected quality.

Until the end of the project, a strong emphasis has to be put on capacity building of the stakeholders, on hazard and risk maps, FRMP, DRR mainstreaming in urban and development plans, Early warning system, management of mitigation measures, to strengthen the sustainability of the project achievements.

Short term (1-3 months)

Quality control, information/knowledge sharing with stakeholders.

Inclusion of the civil society in the DRR bodies

2. Quality control of the construction works and technical approval of design projects for Vardar River:

a) Senokos -Lomnica:

A visit in the field of the supervisor of the construction works with UNDP and the construction company is urgently needed before the end of the construction, to control the quality of the execution according to the design project and to realize the adaptative constructive measures to ensure the effectiveness of the landslide stabilization work in conformity with the design project.

The observations made in May 2023 are the following: the instable rocks above the road are not evacuated, the higher part of the landslide is not stabilized, and the protective net is not fixed to the ground (staples). On the other site, the gabions show a bad craftsmanship and some landslides are still possible on the left side of the construction.

b) Staro Selo :

A visit in the field with the director of National Park Sharr Mountain is urgently needed to find a solution to restart the construction works stopped because of the opening of the road access in the forest. A compensation of the deforested area with a similar area of afforestation should be proposed by UNDP.

An arrangement with National Park Sharr Mountain must be proposed so that they can choose the location and the species for compensatory afforestation, manage the plantation, and ensure the 5-year maintenance of the young trees.

c) Shipkovica :

A visit in the field with the consultant in charge of the design project, the supervisor consultant, the construction company and the municipality has to be organized urgently by UNDP to review the project in the remaining part of the channel across the village to take into consideration the needs of the community to guarantee their access by road to their houses and allow the rehabilitation of the river with hydraulic control of the capacity for flood protection.

A formal control and approval of the revised plans by CTA is required before the completion of the construction works.

d) Other locations by extension:

By extension, a quality control of all the landslide stabilization construction works has to be realized by the supervisors in charge and controlled and approved afterwards by CTA.

e) Vardar River rehabilitation in Gostivar and Jegunovce

For both projects, before the request of construction permits, it is recommended to have a formal control of the design project by CTA to verify if the Nature-Based Solutions concepts proposed by Holinger report are well included into the projects.

3. Enlarging Resilient Polog Network to include representatives of the civil society and of the communities.

The Resilient Polog Network has to be enlarged to include representatives of the civil society and of the communities and other important stakeholders of the region in the decision-making process. Local NGOs, as BIRC (Balkan Institute for Regional Cooperation), religious leaders of the communities, education professionals... should be part of the network to represent the communities.

Centre of Development of the Polog Planning Region and National Park Sharr Mountain should also be included in the exchanges with the network as legal concerned institutions of the Polog region.

The participation of all the civil society is a key element to avoid political competition between municipalities and allow equitable decision-making processes for all stakeholders.

4. Information sharing and dissemination of key project documents of the project to the enlarged Resilient Polog Network

The hazard maps, risk maps, FRMP, guidelines for DRR mainstreaming in urban planning and development planning have to be disseminated and explained to the Resilient Polog Network members, as part of a first capacity building of the stakeholders.

It is recommended to identify groups of stakeholders according to their roles and responsibilities in DRM to have targeted adapted training courses considering the needs of each group.

5. Review of the Capacity development plan with Resilient Polog Network

The capacity development plan has to be revised considering the timeline with a first step of 1-year of capacity building from June 2023 to June 2024. It's recommended to identify groups of stakeholders regarding the different DRM components of the project to propose targeted capacity building programmes including on-job trainings, Training of Trainers approach, and practical applications with the hard components of the programme. Thus, the stakeholders could progressively enhance their capacities and their ownership by integrating DRM in their current activities. For example, for Vardar River rehabilitation projects in Gostivar and Jegunovce, a co-lead with UNDP and the municipality should be established to learn by doing how to manage the whole process of implementation from design project to the end of the construction work.

For awareness raising of the population, it is highly recommended to empower local NGOs, and communities' referees to handle the activities in villages and to develop a communication and awareness raising strategy with local media (BIRC) to disseminate largely the key messages of prevention and preparedness in all Polog region. It would help to create the ownership in the communities and facilitate further activities as construction works.

For each group of stakeholders, clear objectives in terms of capacities in line with their responsibilities have to be agreed with them to define the 1-year progressive capacity building programme with them. To mitigate the risk related to the turnover of staff in the municipalities, a strategy of ToT has to be preferred, with the different municipalities learning from each other.

A support of CTA for this work is recommended.

6. Afforestation – 5-year maintenance

The small trees planted for afforestation need maintenance work so that they can continue their growth properly. A 5-year maintenance has to be planned and organised with the National Park Sharr Mountain for the afforestation made in the perimeter of the national park or by local NGOs, if possible, for the other areas. A specific awareness raising of the population on the protection role of the forest against erosion and floods is also needed at the same time.

7. Improvement of project management

a) Project Implementation Unit – based in Tetovo

To improve the networking with the stakeholders, have a better monitoring of the evolution of the local context and enhance the reactivity of PMU to handle issues in the field, it's highly recommended to base the PMU in Tetovo. That means all the staff members involved in the implementation of the ongoing activities and construction work in Polog region (facilitation, monitoring...) need to be settled in the office in Tetovo. Concerning the project manager, responsible to coordinate the national stakeholders and other donors, it's recommended to have a ratio of 2 days in Skopje and 3 days in Tetovo a week. The administration support would stay in Skopje.

In that phase of implementation of the programme, with most of the ongoing activities implemented in the field and quick changes of the context during construction works, a strengthening of the presence of the PMU in Polog region will be welcomed by the regional and local stakeholders, and for the development and the strengthening of the Resilient Polog Network and the Joint Administrative Unit.

b) Operational Coordination Unit

Regarding the past experience of blockage in Shipkovicica, Staro Selo, the delays for the delivery of construction permits, and the quick changes of the local context, it's highly recommended to create an operational coordination unit with UNDP PMU, MoEPP-Water department director, SDC/SECO, and CMC, DRP, HMS if needed by extension, to review transparently every 3 months the detailed work plan and the monitoring of risks and mitigation measures proposed to facilitate the implementation of each activity.

This operational coordination unit will help to share the updated information concerning the ongoing implementation and to work together to find out the best mitigation measures to handle to reduce the risks of blockage or conflicts.

These meetings are a support to UNDP for risk management of the project implementation, following a CSPM approach.

The first meeting has to be organized as soon as possible to tackle the situations mentioned at point 1.

End of phase 1 – 31.12.2023 + 6 month no cost extension

Capacity building and awareness raising, participation and inclusion, improvement of project management.

8. Capacity building of the Resilient Polog Network on FRM

Until the end of the programme, and regarding the low ownership observed, UNDP PMU has to put the emphasis on capacity building, including on-job trainings, training of trainers approaches to enhance efficiently, effectively and progressively the capacities of the stakeholders on each part of the Flood risk management.

The purpose is to dynamize now the new created DRR structures to become the indispensable platforms to make decisions on flood risk management. A risk exists for these structures to be ineffective if they are not frequently mobilized.

The 1-year capacity building programme of capacity building revised previously has to be implemented.

9. Social vulnerability assessment and update of FRMP

A vulnerability assessment of all the Polog region has to be done to target in priority the most vulnerable at-risk population in the river basin. This assessment has to be considered and integrated in the FRMP.

10. Awareness raising of the local population.

A dissemination of the exiting knowledge towards the local population has to be developed based on the experience of BIRC to convince the communities about the National Park Sharr Mountain and using social media as a mean of communication.

11. Early Warning System

It is recommended, regarding the low capacities of HMS for forecasting and modelling (2 Hydrologists), to combine the technical EWS approach with community early warning systems based on the observation of water levels and successive thresholds materialized in the river. As CMC and DPR are already working with referees in the communities, it could be a good opportunity to combine both approaches, not depending only on HMS modelling and formal transmission of alerts.

12. Improving programme management

PMU has to improve the programme management by:

- Obtaining the formal approval of all DRR thematic/technical document by CTA, for quality control regarding the design projects, the inclusion of nature-based solutions in the concept of the design projects, the coherence of the approach proposed with an integrated risk management concept.
- Settling in the office in Tetovo to increase the communication and the cooperation with the stakeholders.
- Designating a focal point to monitor the evolution of the local context for the implementation of each activity (CSPM approach); to allow a quick reaction and reduce the risk of potential conflicts.
- Improving its mechanisms of risk management of the implementation, based on the information of the focal points.
- Organizing the Operational Coordination Unit meetings (1/3 months) and Project Board meetings (1/year)
- Improving the reporting in line with the indicators of the log frame, and provide the additional data needed to allow this reporting (nb of people protected by each mitigation measure, cost-benefit analysis for each mitigation measure)
- Improving the documentation management for the project documents (collecting all signed and dated documents of the programme)

13. Workshop with stakeholders to define the scope of the second phase.

Based on the proposals made in this report, the PMU with SDC/SECO would organize a workshop with all the stakeholders, 3 months before the end of Phase 1, to collect the lessons learned from Phase 1, to realize a SWOT analysis and to draft the logframe of a potential Phase 2.

Phase 2 and exit phase – consolidation and up-scaling.

The potential of a second phase of the programme has been analysed regarding the achievements and lessons learned from the first phase and the possibilities to scale up the integrated flood risk management model at the national level, regarding the priorities and the potential commitment of the ministries involved in the programme until now.

Regarding the low ownership of the regional and local stakeholders and at the same time their commitment to take the lead of flood risk management in Polog region, the achievements of the first phase need to be consolidated in a second phase with a long-term capacity building programme followed by a transition phase during an exit phase to guarantee the sustainability of the investments made in the frame of this programme.

14. Consolidation of the integrated flood risk management in Polog region

a) Strengthening the Resilient Polog Network and the Joint Administrative Unit as leaders of the Disaster risk management in Polog region

The capacity building of the DRM bodies engaged during the end of the first phase should be continued to enhance progressively the capacities of the legal institutions to:

- Update regularly the flood risk management plan,
- Prioritize the risk reduction actions in an Action Plan following an integrated approach at the scale of the watershed,

- Manage the implementation of the risk reduction actions: urban planning, afforestation, mitigation measures promoting nature-based solutions, awareness raising in the communities on early warning system and preparedness...

Following a participatory and inclusive approach with all the relevant stakeholders of the region and especially representatives of civil society and communities. The most vulnerable at-risk population have to be targeted by all the activities managed by the Resilient Polog Network. The update of the FRMP and the Action plan will be particularly attentive to consider the vulnerability and the capacities of the communities to cope with natural disasters.

b) Development of Watershed management

Based on hazard and risk maps, as part of risk reduction measures, watershed regulations should be set to regulate agriculture, pasture, forestry, and other practices in the upper parts of the river basin to reduce and prevent soil erosion and limit the transport of sediments to the lower parts of the river basin.

The regulations should be part of the FRMP, as one of the prevention measures.

c) Development of Cost Benefit Analysis guidelines and mechanisms to prioritize flood risk reduction investments.

The efficiency of DRR projects has to be systematically analysed considering direct and indirect economic and human losses. Cost-benefit analysis guidelines could be developed to create a standard to evaluate the efficiency of a DRR project. The swiss model EconoMe could be an example to develop similar approach in North Macedonia.

The CBA ratio would provide a standard and transparent basis for Resilient Polog Network to evaluate the efficiency of risk reduction measures and help the network to prioritize the risk reduction investments.

To complement, mechanisms to use the funds (local, regional, national budgets or donors' grants) should be developed, including CBA ratio as one of the criteria to consider prioritizing the investments. It would provide quantitative standardized analysis of the efficiency of the DRR Projects that could help the region to request funds at the regional or national level to MoEPP and MoF.

As MoF plan to amend the law to increase the budgets of the Centre of Development of the Polog Planning Regions in North Macedonia, the CBA guidelines and the mechanisms developed could help to reach these additional budgets for the Resilient Polog Network following the principles of transparency. Regarding the existing divergence and rivalry of the municipalities, a standard applied to all the DRR projects of the region would help to guarantee the neutrality and objectivity of the decisions made by the Resilient Polog Network.

The model could be developed and experimented in Polog region, and then up scaled at the national level.

Regarding the low penetration of insurance in North Macedonia and the absence of ownership of the Ministries to include mandatory insurance in the laws, it is not recommended to work on the promotion of such system.

d) Awareness raising of the local communities in high-risk areas & vulnerable population.

The awareness raising of the most vulnerable population in flood prone areas is essential to build resilience in Polog Region. This awareness raising need to explain the hazards threatening the population, the early warning system, the institutions in charge of the anticipatory evacuations, the shelters in the neighbourhood and the good behaviour to adopt in case of floods. The awareness raising should be done also on the importance of a watershed management of the river to reduce the risk and the role of the mitigation measures.

CMC, DPR regional offices, Local NGOs, BIRC, referents of the communities could implement such activities in the villages and social media should be used as mean of information dissemination. A ToT approach could be followed to enhance the replication potential.

A specific communication strategy of the Resilient Polog Network could be developed by BIRC based on the successful experience of National Park Sharr Mountain, to build risk culture in Polog region.

e) DRM in Education programmes

Building resilience with the new generation is a key of the sustainability. For the second phase and in line with the awareness raising of the population at risk (d), modules or training courses in elementary schools could be developed to enhance the capacities of children to face the natural disasters.

This could be handled by the teachers with a thematic support to include the DRM module in an existing curriculum. A potential of up-scaling for all the country is possible afterwards in case of success in Polog region.

f) Construction of new mitigation measures and afforestation

As part of practical applications of the capacity building trainings, new mitigation measures selected by Resilient Polog Network could be implemented. The efficiency of the infrastructures should be proven, nature-based solutions promoted as far as possible, and a participatory and inclusive approach followed.

The Poroj feasibility study could propose measures than could be implemented during the second phase.

New afforestation could be planned during the second phase with National Park Sharr Mountain as implementer, based on the erosion and landslide maps established during the first phase. Up scaling in all the upper parts of the National Park Sharr Mountain.

These new infrastructure construction work would be an opportunity to develop practical capacities of:

- Universities, Society of Engineers: hazard and risk mapping, project design including Nature based solutions concepts.
- Municipalities: management of a mitigation measure from design to construction, participatory and inclusive approach

15. Up-scaling the integrated flood risk management model at the national level

The following proposals are considering the interests of the universities and the capacities of MoEPP.

a) Institutionalization of the FRMP in the River basin management plan

The FRMP is not a legal document as it concerned only the Upper part of Vardar River basin. To be institutionalized, it needs to be included and merged with the global River Basin Management Plan of Vardar River, following EU directives.

Such activity is important to consolidate the work made on the FRMP in Polog region during the first phase and is under the responsibility of MoEPP.

b) Institutionalization of the FRM strategy and action plan

The FRM strategy and action plan developed with the national stakeholders need also to be institutionalized for all the country, and MoEPP needs to be supported to achieve this result.

This document will allow the replication of FRMP Polog region in other regions in North Macedonia.

a) Institutionalization of the guidelines on DRR mainstreaming in urban planning and development planning

The document is of great value and need to be shared with national stakeholders to be recognized as a reference and to be replicated in other regions in the country.

b) Harmonization of the flood hazard and risk mapping methodologies

A standardized methodology following the principles mentioned in the FRM has to be developed for all the people working on such activities. Universities, CMC, society of engineers would be the relevant stakeholders to work on that subject. The Swiss expertise could be shared also.

c) Universities collaboration and exchange: innovative approach of FRM

Exchanges with University of Bern was planned during the first phase but not possible during covid.

Such exchange with Swiss Universities and other Universities in the Balkans would be valuable especially on the following topics:

- modern river management: promoting nature-based solutions concepts to consider natural biological aspects of the river instead of concrete walls and riverbanks, considering sediment transportation and geomorphology of the river.
- effects of climate change on the forests and species used for afforestation.

As proposed by CTA, “a Master Study in DRR could be organized with the local institutes and universities like the Institute of Earthquake Engineering and engineering seismology of the Ss Cyril and Methodius University and other institutions working in specific fields of DRR, promoting the collaboration in this field with other European universities, opening courses not only for Macedonian students but envisage a regional approach.

Further discussions with universities would be necessary to assess more in detail the feasibility of such collaboration but would be helpful to change the mindset in river management to a more environment-friendly approach.

d) EWS concept

The early warning system developed in Polog region could be up scaled in other regions in North Macedonia. The system should be first implemented and monitored in Polog region and re-assess regarding the evolution of the capacities of HMS in the future.

e) Replication of afforestation

Based on the experience of the first phase and with some improvements regarding the maintenance of the young trees, a replication of the model based on erosion maps and landslide maps could be easily replicated.

Combined with a watershed management system regulating the land use to protect the forest, the afforestation approach could be replicated by Public Enterprise National Forests.

All these proposals have to be discussed with the main stakeholders of the first phase during a workshop to organize in the last 6 months of the first phase implementation. It would help to assess more in detail the potential of the different stakeholders and to define the content of Phase 2.

Timeline for Phase 2 and exit phase

Regarding the uncertainties of the impact of the 2024 elections and the potential changes in ministries afterwards, it's recommended to continue with a **2-year period for Phase 2 (01.07.2024 – 30.06.2026)** to consolidate the capacities in Polog region and up-scale the main achievements and to continue with **a 2-year exit phase (01.07.2026 – 30.06.2028)** corresponding to the transition plan.

A smooth transition will be possible with these 2 periods and with the additional 6-month no cost extension for phase 1.

Project implementation unit

Regarding the lessons learnt during Phase 1, it's recommended to have the PMU settled in Tetovo during Phase 2 and the exit phase and to include inside PMU a DRM expert to manage the coordination of the thematic aspects, as CTA. The current CTA would become a backstopper available under request to advise the PMU or the Operational Coordination Unit on DRM specific questions and Swiss expertise.

To avoid blockages in the implementation of some activities, it's highly recommended to include in PMU a CSPM specialist, to monitor during all the implementation the evolution of the context and the impacts on the programme implementation.

Finally, it's highly recommended to keep the operational coordination unit created during the end of the Phase 1 as a platform to facilitate the implementation of the activities.

Vollèges, 30th June 2023



Constance Jaillet
MTE Team Leader

7. Annexes

Annex 1 Terms of reference



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Department of Foreign Affairs FDFA
Swiss Agency for Development and Cooperation SDC
Swiss Cooperation Office Skopje

Terms of Reference

Swiss Embassy in North Macedonia

Programme evaluation

Evaluation title:

**External, mid-term evaluation of Improving Resilience to Floods in the Polog Region
2017 – 2023**

Skopje, December 2022

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Terms and Abbreviations

CSOs	Civil Society Organisations
DRR	Disaster Risk Reduction
EBA	Ecosystem-based Adaptation
Eco-DRR	Ecosystem-based DRR
EU	European Union
FDFA	Federal Department of Foreign Affairs
LNOB	Leave no one behind
MoEPP	Ministry of Education and Physical Planning
NPO	National Programme Officer
OECD/DAC	Organisation for Economic Co-operation and Development/Development Assistance Committee
SDC	Swiss Agency for Development and Cooperation
SECO	Swiss State Secretariat for Economic Affairs
ToC	Theory of Change
ToRs	Terms of References
UN	United Nations
UNDP	United Nations Development Program

1. Introduction

This document sets out the requirements relating to the programme evaluation mandate for Improving Resilience to Floods in the Polog Region, the selection process and criteria.

The Terms of Reference (ToR) describe the purpose, context, objectives (including guiding indicative evaluation questions), scope and a proposed methodology of the evaluation. They further describe the evaluation process and the expected deliverables. **The ToR will become a component of the contract for this evaluation mandate.**

2. Background information and context of the evaluation

The Republic of North Macedonia is a disaster-prone country that is particularly vulnerable to the risk of floods. Most river basins experience dramatic variations in water flows over time, and the risk of floods is also exacerbated by the country's mountainous topography and land structure. In recent years, extreme weather events caused by changing climate conditions, including torrential rains, have heightened this risk. However, human factors are also at work. Changing land use and land cover – for example, through cultivation or construction in wetland areas, rapid urbanization and heightened erosion from logging in forests – are altering hydrological regimes, increasing the risk of floods.

The tragic consequences of the most recent extreme flood events, and the magnitude of associated damages and losses, revealed major deficiencies throughout all components of the overall flood management system (e.g., monitoring, planning, response and recovery).

In January and February 2015, a severe flooding that hit much of the country caused widespread damage and economic losses in 44 municipalities. The floods caused major damages to infrastructure, private houses, private-sector industrial facilities, schools and public facilities. The impact assessment estimated the total cost of the spring 2015 floods at over EUR 35.7 million.

On the night of 6-7 August 2016, heavy torrential rain caused flash floods in the suburbs of Skopje, causing the tragic loss of 23 lives and an estimated cost of over EUR 30 million on account of the severely damaged infrastructure and affected agricultural land.

The frequency of flooding, however, is higher in the northwestern region Polog than anywhere else in the country. On 3 August 2015, after torrential rains lasting less than two hours, the region was hit by a combination of flash floods and landslides that caused six deaths and an estimated USD 21.5 million in damage.

Such magnitude of consequences of recent floods is a result of incomplete, missing or poorly maintained structural measures in combination with poor policies and legislation, institutional and inter-agency coordination deficiencies, unclear communication mechanisms in time of crisis and limited community awareness. The lack of clarity on the roles of different institutions in the system, their limited capacities and funding constraints have contributed together to an inefficient response to the floods, amplifying their adverse effects.

The floods have also affected certain social groups disproportionately. An insight into casualty statistics and the distribution of damages and losses experienced by different social groups shows that the rural poor, Roma, people with disabilities and the elderly, and women and children are more severely affected than others. This is a result of major gaps in already inefficient disaster risk management/flood management systems that lack sensitivity to vulnerable groups.

To address the growing flood-related challenges in the Polog Region and country-wide, and the associated socio-economic consequences, a programme "Improving Resilience to Floods in the Polog region" was developed in 2017. This programme includes a comprehensive set of complementary mitigation and resilience building measures funded by SDC (CHF 3'300'000 for the period from 01.10.2017 to 31.12.2021 and no-budget extension until 28.02.2022) and SECO (CHF 6'900'000 for the period from 05.12.2018 to 31.12.2023). These measures, derived from new and existing flood risk assessment studies and plans, were combined to maximize the benefits for communities and the environment. The programme'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 in order to prevent/mitigate losses and alleviate the impact of future floods.

The developed programme is in line with the Swiss Cooperation Strategy Macedonia 2017 – 2020 and with the Swiss Cooperation Programme North Macedonia 2021-24, particularly Domain of Environment and Sustainable Public Utility Services, outcome 3.2: “Local and national stakeholders conserve, manage and sustainably use natural resources and ecosystems, and support communities exposed to natural hazards to become more resilient”. Following the Sendai Framework for Disaster Risk Reduction 2015-2030, and the EU Floods Directive, Swiss support assists in preventing the loss of lives, homes and livelihoods as well as damage to important communal assets through a better understanding of disaster risks, risk-reducing measures, and improved risk management and response capacities of local and central-level authorities. The topic of DRR fits under the Sustainable Development Goal 11: “Make cities and human settlements inclusive, safe, resilient and sustainable”.

The COVID-19 pandemic took a significant toll on the implementation of the program including on the ability to build capacities and transfer responsibilities to national counterparts. Further delays were caused by the emerging need for additional investigations on sediment transport and critical landslides, the introduction of more stringent requirements and lengthy procedures related to the preparation and approval of urban designs, underperformance of an international contractor tasked with the preparation of essential inputs for the design and implementation of preparedness enhancing measures, as well as changes of key staff within the implementing UNDP team. The recent municipal elections in October 2021 resulted in changes of the local authorities in six out of the nine municipalities in the Polog region. The consequence of these circumstances (by the end of 2021) were significant delays in the implementation of (infrastructural) measures and related underspending in comparison to the original time schedule and budget.

In order to allow uninterrupted strengthening of disaster risk governance by supporting and building capacities of the relevant stakeholders at local, regional and national level alongside with the implementation of prioritized measures for improving overall preparedness for effective response and mitigation of risk, budgetary increase in amount of CHF 2'100'000 and an extension of the phase 1 for 22 months (until the end of 2023) were approved.

The programme is implemented by UNDP and beside the financing from SDC and SECO, the Ministry of Environment and Physical Planning (MoEPP) contributed to rehabilitation and flood protection measures on Shipkovica torrent, while the municipalities in the Polog region contributed indirectly, through financing complementary activities related to improved flood management.

3. Objective, scope and focus of the evaluation

3.1. Evaluation object

The programme is based on the concept of risk reduction by identifying and addressing underlying causes and drivers (e.g., improper urbanization, poor resource management practices, socio-economic conditions and inequalities, environmental degradation as well as climate change effects). Following a process of robust participatory planning, the programme supports the implementation of an optimized combination of basin-scale measures including institutional development for better flood risk management, the creation of basin-wide flash flood early warning and public alert systems, and infrastructure recovery and/or development programmes that demonstrate cutting-edge approaches and contemporary international experiences (e.g., from Switzerland and the EU). The project-backed flood risk management planning process provides not only short-term measures to be implemented with the programme support, but also develops a long-term flood risk reduction strategy for the region aiming to guide future investments by government agencies, municipalities and donors.

More specifically, this six-year programme aims to substantively support achieving:

- a) an improved knowledge of region's flood risk, causes and appropriate responses among authorities and other stakeholders;
- b) an inclusive approach to flood risk management planning in line with EU legislation that is sensitive to the specific needs of different vulnerable social groups;
- c) a better preparedness for flood risks and strengthened recovery capacity thanks to improved governance;
- d) progress toward flood risk-based urban and economic development;
- e) implementation of priority flood risk mitigation measures informed by international best practices to effectively reduce future flood risks in the Polog region;
- f) a reduction in the adverse consequences of future floods in high-risk areas of the basin through the repair or construction of flood control infrastructure in line with contemporary approaches and techniques, as well as demonstration of contemporary approaches to flood control in different types of settings (e.g., rural and urban);
- h) creation of a basin-scale flash-flood early warning and public-alert system;
- g) progress in the adoption of the objectives and principles of the EU Floods Directive and
- i) a policy dialogue among targeted stakeholders so that risk financing and risk transfer mechanisms are conceptualized and become part of the national-level flood risk mitigation strategy.

Combining these effects shall ultimately measurably improve the overall community resilience to floods in the Polog Region and shall assist the alignment of the country-level flood management system with EU-based and other contemporary concepts and approaches.

The program is designed to ensure complementarity and create synergies of SDC- and SECO-funded interventions contributing to a real transformation toward integrated flood risk management. While SECO-funded interventions will greatly focus on building a comprehensive, long-term flood risk mitigation/DRR planning base, state-of-the-art urban resilience building, and risk financing, the SDC-funded components will help improve the national-level legal and regulatory environment, improve flood preparedness, and introduce innovative technologies to early warning systems and nature-based (bioengineering) solutions for flood control in remote areas, through the application of the principles of Eco-DRR (Ecosystem-based Disaster Risk Reduction) and EbA (Ecosystem-based Adaptation). In terms of geographic focus, SECO will place emphasis on measures in densely populated urban areas facing the challenges of uncontrolled urbanizations (although possible measures may be implemented outside urban settings, in line with basin-scale approaches), while SDC will support flood protection and building the capacity of the most vulnerable communities, which are often located in mountainous rural settlements directly exposed to the effects of flash floods, and/or source areas for floods affecting downstream parts.

3.2. Purpose and objectives

This programme evaluation serves several purposes: 1) learning (what works, what does not and why), 2) steering (inform and guide further development of the Swiss engagement in flood management and DRR in North Macedonia; and 3) accountability to stakeholders and funders. The objective of this evaluation is to provide insights into the programme's effectiveness, efficiency, relevance, coherence, impact and sustainability in the frame of set targets.

The programme evaluation should be guided by the **OECD/DAC Criteria**¹ relevance, coherence, effectiveness, efficiency, impact and sustainability. The focus on and the exclusion of criteria should be explicitly stated in the **bid of the consultant** as well as the **final evaluation report**.

¹ OECD/DAC Network on Development Evaluation: [Better Criteria for Better Evaluation. Revised Evaluation Criteria Definitions and Principles for Use](#) (2019).

3.3. Scope

The extent and depth of the evaluation will be informed by the indicative evaluation questions that the evaluation seeks to answer (see chapter below). The evaluation will assess:

- The overall performance of the programme and the extent to which the planned programme outcomes and outputs have been achieved since the beginning of the programme on 20th of November 2017;
- The specific institutional country's context that proved critical in producing the intended outputs and the factors that facilitated and/or hindered the progress in achieving the outputs, both in terms of the external environment and risks, crisis caused by pandemic, as well as internal, including weaknesses in programme design, management and implementation, human resources skills and resources.

The timeframe is limited to Phase 1 started on 20th of November 2017 and ending on 31st of December 2023. The geographical scope is the Polog region.

3.4. Indicative evaluation questions / key focus area

During the preparatory phase, the evaluator, in consultation with the SDC, should further refine and prioritise the questions that are structured according to the OECD DAC-Criteria. The bidder is also expected to address these questions within the technical bid.

Relevance	<ul style="list-style-type: none"> • To what extent do the objectives of the "Improving Resilience to Floods in the Polog Region" programme respond to national needs and priorities? • Is the approach behind the development intervention appropriate to the problems to be solved? • How consistent are the activities and outputs with the intended effects? • Were the specific needs of vulnerable groups considered in the programme planning²? • To what extent were the gender equality and social inclusion mainstreamed within the programme?
Coherence	<ul style="list-style-type: none"> • Internal coherence (consistency, complementarity and synergies): to what extent is the intervention in line with the Swiss Cooperation Programme (SCP) North Macedonia (2021-24) and complementary to other Swiss interventions financed by SDC and SECO, in the same geographic region and other three thematic domains of the SCP³? • External coherence: to what extent is the intervention compatible with and complementary to interventions of other actors (bilateral and multilateral donors, private sector, UN, SCOs, etc.) in the country, region and thematic field (complementarity and synergies)?
Effectiveness	<ul style="list-style-type: none"> • To what extent have the planned results been achieved at the different levels (see Annex 5)? <ul style="list-style-type: none"> - Were authorities equipped with new knowledge to mainstream flood risk mitigation and DRR priorities in future municipal urban and other development plans (Outcome 1.2)? - Have institutions and communities in the Polog region enhanced their capacities and are they prepared for effective response, recovery, rehabilitation and reconstruction (Outcome 2)?

² women-housewives, elderly people, children, persons with disabilities, poor families (ref. Social survey)

³ Environment: Improvement of the Solid Waste Management Services in the Polog Region; Democratic Governance: Civica Mobilitas, Empowerment of Municipal Councils; Economic Development: Balanced Regional Development

	<p>- Is the National legal and regulatory framework for flood risk management harmonized with the EU Flood Directive (Outcome 4.1)?</p> <ul style="list-style-type: none"> • What are the main programme accomplishments? • What were the obstacles or constraints in the implementation process and the achievement of results? Put a particular emphasis on results related to institutional capacity building, the establishment of the 'Network for Resilience Polog', the 'intermunicipal DRR body' and the 'DRR dialogue platform'? • To what extent has the programme instigated systemic improvements in DRR management system in the Polog region, including the coordination between the 9 municipalities and other relevant institutions? • Has the introduced 'DRR model of work' been effective i.e. avoiding overlaps with the existing structures, relying on local capacities and ensuring local ownership? • What participatory mechanisms were applied? To what extent did the programme reach the intended vulnerable groups? • How effective were the interventions in contributing to the results? If changes occurred, to what extent can these be attributed to the intervention?
Efficiency	<ul style="list-style-type: none"> • Were the interventions related to flood risk mitigation prioritized correctly, implemented cost-effectively and in a timely manner? • Was the development intervention implemented conducive to reach intended results? • Is the monitoring system suited to track progress of the different programme components in a systemic manner? • Has the programme's team and engaged experts had the right skills and expertise to implement this complex programme? • How appropriate were programme management, steering and decision-making to address issues? Were problems identified in time and managed appropriately?
Impact	<ul style="list-style-type: none"> • Which positive, lasting effects and behavioural changes of the main target groups⁴ were reached? • Which unexpected and unintended positive and negative (side) effects have occurred and in which programme areas? • What real difference have the programme's interventions in this short duration made to the beneficiaries? Have woman and men equally benefited? • Is the actual short-term impact caused by the development intervention in line with the targeted impact⁵? If not, could this have been prevented/addressed? How? • To what extent are key stakeholders satisfied with the implementation and results of the programme in general and the partnership support in specific, and what issues remain to be tackled? • What are the key lessons learnt from the programme implementation?
Sustainability	<ul style="list-style-type: none"> • Can the planned results at all levels of the programme be achieved within the remaining time (end of 2023)? If not, what do you recommend to enhance the sustainability of the effects of the intervention? • What evidence indicates that short-term impact(s) achieved so far will remain after programme completion? If not, what is necessary to reach a sustainable impact, and does the programme adequately address/manage necessary conditions? Which major factors might enhance the effects achieved or prevent them from continuing? • What are the main risks for the programme to be successful?

⁴ institutions, central and local authorities, civil sector and citizens in the most affected areas

⁵ see TORs 3.1, p.4-5: combined interventions a-l

	<ul style="list-style-type: none"> • Have the partner institutions and involved sections of the rural and urban population embraced the aims and activities promoted by the programme (ownership)? Was the approach inclusive (i.e. integrating also the vulnerable groups in key decisions making or awareness building)? • Are mechanisms in place, for partner institutions and involved stakeholders (target groups) to continue the activity independently (of existence of financial resources) and adjust their strategies to changing conditions? Have they strengthened their own problem-solving capacities (institutional and technical capacity)? • What are the conditions for the programme to be scaled up horizontally and vertically? Has the programme started to work on a resources mobilisation strategy? Which actors should be involved in such strategy to be successful?
Results Framework	<ul style="list-style-type: none"> • Which assumptions in the intervention logic have proven true and which mitigation measures worked?

3.5. Forward looking recommendations

In order to guide further development of the Swiss engagement in flood management and DRR in North Macedonia, the evaluator shall elaborate forward looking recommendations that include the lessons learnt and provide content for the theory of change, objectives, strategy of intervention, modalities of implementation and geographical areas for the future Swiss engagement.

4. Evaluation process and methods

4.1. Evaluation methodology

The methodology shall include, but does not have to be limited to:

- Desk Study: The Consultant shall review before carrying out the field mission:
 - Entry Proposal / Credit Proposals, Extension of the Credit proposal, Project Document (the original and the updated version), Contractual documents;
 - Project narrative and financial reports prepared by UNDP; Project Boards' meeting documents.
- Field mission: The Consultant shall carry out a field mission in North Macedonia. The field mission includes briefing and debriefing meetings at the beginning and end of the mission with the Swiss Embassy in Skopje and with SECO headquarter.
- Interviews/working sessions with the implementer (UNDP office in North Macedonia) and relevant national and local stakeholders:
 - the Resident Representative at UNDP North Macedonia;
 - representatives of the UNDP implementation team in North Macedonia, including the Senior technical advisor to UNDP, Markus Zimmermann, Switzerland and the local DRR expert Vasko Popovski, North Macedonia;
 - Minister of Environment and Physical Planning (MoEPP);
 - representatives of the MoEPP, Water Department;
 - representatives of the Ministry of Agriculture, Forestry and Water Economy;
 - Ministry of Finance (related to disaster risk financing);
 - Mayors and representatives of 9 municipalities in the Polog region (Tetovo, Gostivar, Bogovinje, Tearce, Jegunovce, Zelino, Mavrovo-Rostuse, Brvenica and Vrapciste);

- beneficiaries and the vulnerable groups in the region identified in the Social survey;
- representatives of the Hydro-meteorological Service;
- representatives of the Crisis Management Centre;
- representatives of the Directorate for protection and Rescue;
- Centre for Development of the Polog Planning Region;
- Members of the Network for Resilient Polog;
- Civil society associations active in the field of environment/flood management/DRR;
- representatives of the Insurance Supervision Agency;
- representatives of the Public Enterprise National Forests;
- other relevant stakeholders, such as academic institutions working on topics related to flood risk management, DRR, regulation of torrential streams, erosion etc (Faculty of Civil Engineering, Skopje and “Hans Em” Faculty of Forest Sciences, Landscape Architecture and Environmental Engineering, Skopje).

Within the field mission, the Consultant shall visit a few urban and rural locations where flood risk mitigation measures, including infrastructure and nature based measures, have been implemented. During the visits, the Consultant shall interview the local population in the targeted areas.

The Consultant is invited to propose other methods and instruments for carrying out the assignment.

In a case of lasting travel restrictions due to COVID 19 pandemic, the Consultant shall propose how to conduct the necessary meetings and exchanges in an alternative manner.

4.2. Roles and responsibilities of the evaluator(s)

The evaluation will be conducted by a team composed of one international consultant accompanied by a local one. The overall responsibility will lie with the international consultant who will be the team leader. The local consultant will be i) responsible for organizing meetings with a support, if needed, of the Swiss Embassy: ii) ensure logistics and transport, and iii) provide translation services in English, Macedonian and preferably in Albanian language. The international consultant will have a contract with Swiss Embassy in North Macedonia to whom he/she will report, and in the capacity of team leader, will sub-contract the local consultant.

4.3. Evaluation process and timeframe

The following work plan provides suggested dates, responsibilities and resources needed for the various activities of the evaluation process. This work plan will eventually be adapted by the evaluation team, in consultation with the SDC/SECO/Swiss Embassy in North Macedonia.

Activity	Date	Responsibilities
Logistical and administrative preparation for data collection, evaluation workshops, field visits, etc.	February 2023	Consultants; Swiss Embassy
Field mission with data collection, interviews, evaluation workshops, etc.	March 2023 (10 working days)	Consultants
Debriefing and validation of main findings. at Skopje	March 2023	Consultant
Data analysis and preparation of Draft Evaluation Report	April 2023	Consultant
Draft Evaluation Report	end of April 2023	Consultant

Feedback on the Draft Evaluation Report by the evaluation manager and reference group	mid May 2023	Swiss Embassy
Final Evaluation Report	end of May 2023	Consultant
SDC – SECO Management Response	mid of June 2023	Swiss Embassy
Dissemination of the Final Evaluation Report	end of June 2023	Swiss Embassy

The expected duration of the assignment of the international consultant is up to 35 days, including one field mission to North Macedonia in duration of 10 working days, while for the local consultant, the expected duration of the assignment is up to 20 working days.

Timeframe to be discussed with the consultant, but the work will be undertaken over a timeline of approximately 4 months (February – May 2023).

5. Deliverables

The following deliverables are expected to be submitted by the evaluator:

- **Debriefing workshop**
This workshop shall be organized by the end of the field mission, to share first findings and to discuss and receive comments from the programme stakeholders, including SDC and SECO Head Offices (Desk Officers, DRR Focal Point).
- **Draft Evaluation Report**
This Report shall include the evaluation findings, conclusions and recommendations. After receiving feedback from the Swiss Embassy, the evaluator should finalise the report in view of these comments.
- **Final Evaluation Report**
The report should be in English, logically structured, contain evidence-based findings, conclusions, lessons and recommendations and their correlations. All information that is not relevant to the overall analysis belongs in an annex. The report should respond in detail to the evaluation questions and key focus areas. It should include a set of 6 to 10 specific recommendations formulated for the programme, and identify the necessary actions required, who should undertake these, and possible timelines (if any).

The evaluation report should not exceed 25 pages, excluding an executive summary and the annexes. The report should contain clear references to important information/data available in the annexes.

Proposed structure of the evaluation report:

Cover page

Table of contents

Acronyms and abbreviations

Acknowledgments

- Executive summary
- Introduction
- Summary description of the programme
- Findings, incl. results
- Conclusions
- Recommendations and lessons learnt

Annexes (compulsory)

- Terms of reference

- Filled out Assessment Grid of the DAC Criteria
- Complete list of stakeholders and others consulted and interviewed
- Detailed description of the review process, including data sources and possible methodological weaknesses and limitations
- Analysis of the intervention logic (logframe or ToC): extent to which objectives have been achieved.

6. Reference Documents

After signing the contract the National Programme Officer in the Swiss Embassy will share the following documents with the evaluator for the evaluator's first desk review:

- *Project document (from 2017 and updated version from 2022),*
- *Entry-cum-credit proposal and Additional credit,*
- *Annual plans and reports,*
- *Social survey*
- *SDC guidance on Disaster Risk reduction, 2018.*
- *An open list of key people to interview*

7. Competency profile of the evaluator(s)

The evaluator must be independent of the FDFA and, in particular, the SDC and SECO, and was not involved in activities covered by this evaluation.

The evaluator is expected to bring along the following evaluation and thematic expertise and experience:

Essential qualities are:

- University degree in the field of climate/environment/disaster risk management;
- Minimum 10 years of relevant experience in project and programme evaluations;
- Confirmed experience in evaluating a similar development interventions;
- Competency with gender, governance and "leave no one behind (LNOB)" issues;
- Ability to apply the DAC evaluation standards;
- Excellent English language capacities.

Desired qualities are:

- Knowledge of the Swiss development cooperation system;
- Knowledge of the political, social and development context in North Macedonia and preferably understanding of climate change/natural resources management issues within the country context.

8. Reporting

The evaluator will report to the Regional Advisor on Water and Environment in Skopje for the entire duration of the assignment. Operational support will be provided by the country cooperation office and the National Programme Officer (NPO) in North Macedonia.

9. Award criteria

The following table provides the award criteria (AC) and the corresponding weighting, on the basis of which the bids will be evaluated.

AC	Award criteria	Weighting
AC 1	Qualifications and experiences of the evaluator <ul style="list-style-type: none"> • University degree in relevant technical science; • Fully available during the contract period; • Strong managerial skills, including result oriented management, human resources management and financial management; • More than 10 years of experience on similar tasks. Value of at least 1 reference must be larger than CHF 120,000 in the last 5 years; • PMP, Prince or similar certificate; • Proven track record in cooperating with a large number of stakeholders and in strengthening the capacities of the key partners; • Excellent English language capacities. • Knowledge of Macedonian language is advantage 	45%
AC 2	Understanding of the assignment and proposed approach and methodology General understanding of the assignment and the approach and methodology for the execution of the tasks described in the document.	30%
AC 3	Financial offer	25%
AC 3.1	Financial offer - Overall price The overall amount (excl. VAT) across the assignment will be evaluated using the following formula $\text{Score} = \left(\frac{P_{\min} \times \text{max. Points}}{P} \right)$ P = price of offer being assessed P min = price of lowest offer max. Points = 5	Sub-weight 90%
AC 3.2	Clarity of the proposition, full character of the cost structure, realistic estimation of costs	Sub-weight 10%
	Total	100%

10. Application procedure

Technical and financial offers have to be submitted to the Swiss Embassy in North Macedonia by email to stanislava.dodeva@eda.admin.ch and to carmen.thoennissen@eda.admin.ch, by 16:00 CET on 16.01.2023

The following documents are requested for the offer:

- 1) Covering letter
- 2) Technical proposal (max. 8 pages), which shall include:
 - Understanding of the assignment;
 - Proposed approach and methodology for the assignment;
 - Competences, roles and responsibilities of the consultant;
 - Proposed timeframe of the evaluation;
- Financial offer in a requested form;
- Annexes:

- Curricula vitae of the proposed evaluator;
- Relevant experience of the evaluator with similar assignments;
- Short Curricula vitae of the proposed local consultant.

The financial proposal should be presented in Swiss Francs (CHF) and shall include contract daily fees, travel expenses (air travel, local travel), daily allowances and ancillary expenses. Flight bookings in economy and the ordering of the air tickets must be made by the Consultant. Only the actual cost of the flight arrangement will be reimbursed.

Filled in Data on Creditor/Contractor (Note: **do not send back** this file to Bern, as indicated in the file, but to the Contracting Authority/Embassy, as part of the offer).

11. Contracting

The contract will be awarded by the Swiss Embassy in North Macedonia, following an analysis of technical and financial proposals received in response to these terms of reference.

12. Annexes

- 1) Assessment Grid for the DAC Criteria
- 2) Switzerland's international cooperation strategy 2021-2024
<https://www.eda.admin.ch/deza/en/home/sdc/publications.html/content/publikationen/en/deza/diverse-publikationen/broschuere-iza-2021-24>
- 3) Swiss Cooperation Strategy North Macedonia 2017-2020
[https://www.bing.com/search?q=3\)+Swiss+Cooperation+Strategy+North+Macedonia+20172020&cvid=74f3e108c23b4e5ca538e924736ad66d&aqs=edge..69i57.949j0j1&FORM=ANAB01&PC=U531](https://www.bing.com/search?q=3)+Swiss+Cooperation+Strategy+North+Macedonia+20172020&cvid=74f3e108c23b4e5ca538e924736ad66d&aqs=edge..69i57.949j0j1&FORM=ANAB01&PC=U531)
- 4) Swiss Cooperation Programme North Macedonia 2021-2024
<https://www.eda.admin.ch/countries/north-macedonia/en/home/representations/botschaft/embassy-tasks.html>
- 5) Programme impact/outcomes/outputs
- 6) Code of Conduct
- 7) General Terms and Conditions of Business
- 8) Data on Creditor/Contractor
- 9) Fact sheet expenses
- 10) Form for offer

Date and place: 24.03.2023

Date and place: Jakarta, 27.03.2023

Stanislava Dodeva

Constance Jaillet





National Programme Officer

Team Leader

Annex 2 Filled out Assessment Grid of the DAC Criteria

Assessment grid (version July 2021)

Note: this assessment grid is used for evaluations and internal assessments of SDC or SECO financed projects and programs (hereinafter jointly referred to as an 'intervention'). It is based on the OECD Development Assistance Committee evaluation criteria.¹ If specific results are not yet measurable at the time of the assessment, it requires analysing the likelihood of achieving impact and sustainability. All applicable sub-criteria should be scored and a short explanation should be provided. Additional sub-criteria may be added.

Select the corresponding number (0-4) representing your rating of the sub-criteria in the column "score": 0 = not assessed; 1 = highly satisfactory; 2 = satisfactory; 3 = unsatisfactory; 4 = highly unsatisfactory

- **Highly satisfactory (HS)** – there were no shortcomings in relation to the intervention's relevance, coherence and efficiency; the objectives at outcome level were fully achieved or exceeded and are likely to have a significant impact, which will be sustained in the future.
- **Satisfactory (S)** – There were moderate shortcomings in relation to the intervention's relevance, coherence and efficiency. Most intended objectives at outcome level were achieved (or for mid-term: are likely to be achieved). The likelihood of achieving intended impact or sustainability of the intervention's benefits is reasonable.
- **Unsatisfactory (U)** – There were important shortcomings in relation to the intervention's relevance, coherence and efficiency, in the achievement of its objectives (N.B. if outputs are achieved, but do not result in the expected outcomes, consider rating relevance and/or effectiveness as unsatisfactory). The likelihood of achieving intended impact or sustainability of the intervention's benefits is questionable.
- **Highly unsatisfactory (HU)** - There were very severe shortcomings in relation to the operation's relevance, coherence and efficiency. Intended objectives have not been achieved, achievement of intended impact or sustainability of benefits are highly unlikely.
- **Not assessed (na)** – The criteria statement cannot be assessed. Please explain and provide details in the justifications section.

Title of the evaluated intervention: Improving resilience to floods in the Polog region

Evaluation type: Mid-term evaluation

Evaluator(s): Constance Jaillet & Zana Hoxha-Edip

Date of the evaluation: 30.06.2023

¹ For more guidance see: Better Criteria for Better Evaluations. Revised Evaluation Criteria. Definitions and Principles for Use, OECD/DAC Network on Development Evaluation, 2019.

Key aspects based on DAC criteria	Score	Justification (Provide a short explanation for your score or why a criterion was not assessed)
Relevance <i>Note: the assessment here captures the relevance of objectives <u>and</u> design at the time of design and at time of evaluation</i>	S	
1. The extent to which the objectives of the intervention respond to the needs and priorities of the target group.	2 - satisfactory	Floods in 2015 and CCA effects threatening Polog region, need of the population (protection and awareness raising) Lack of capacities and budgets of the municipalities Lack of capacities of the communities and vulnerable people HS regarding the design and S regarding the implementation at the time of the evaluation
2. The extent to which the objectives of the intervention respond to the needs and priorities of indirectly affected stakeholders (not included in target group, e.g. government, civil society, etc.) in the country of the intervention.	2 - satisfactory	A priority for MoEPP – Flood risk management in line with EU directives Lack of participatory and inclusive approach in the programme at the time of evaluation, interventions partially not responding to the needs of the civil society in terms of awareness raising and results of the mitigation measures (Shipkovicva, Senokos-Lomnica)
3. The extent to which core design elements of the intervention (such as the theory of change, structure of the project components, choice of services and intervention partners) adequately reflect the needs and priorities of the target group.	1 - highly satisfactory	Project document is well structured and considering the needs of local flood risk governance combining capacity building, awareness raising and infrastructure works and a participatory and inclusive approach. SDC and SECO components are complementary with an innovative integrated flood risk management approach
If an additional sub-criteria is relevant please formulate it here	select	Click here to enter text.
Coherence	HS	
4. Internal coherence: the extent to which the intervention is compatible with other interventions of Swiss development cooperation in the same country and thematic field (consistency, complementarity and synergies).	1 - highly satisfactory	Coherence with SCP 2021-2024, with Switzerland's International cooperation strategy 2021-2024, with other programmes of SDC and SECO in the country and in Polog region, with SDC DRR guidelines, with Sendai Framework on DRR
5. External coherence: the extent to which the intervention is compatible with interventions of other actors in the country and thematic field (complementarity and synergies).	1 - highly satisfactory	No replication of other donors' programmes Synergies could be developed with JICA, EU, GIZ, IUCN, EuropaRe

Key aspects based on DAC criteria	Score	Justification (Provide a short explanation for your score or why a criterion was not assessed)
If an additional sub-criteria is relevant please formulate it here	select	Click here to enter text.
Effectiveness	<i>U</i>	
6. The extent to which approaches/strategies during implementation are adequate to achieve the intended results.	3 - unsatisfactory	No participatory and inclusive approach (civil society and communities) Scattering of the activities and separation between hard and soft components. Insufficient capacity building and awareness raising until now.
7. The extent to which the intervention achieved or is expected to achieve its intended objectives (outputs and outcomes).	2 - satisfactory	2/3 of the indicators achieved On track for the remaining ones, but out of the timeline for some mitigation measures (Vardar river) Constraints for outputs 4.1 and 4.2
8. The extent to which the intervention achieved or is expected to achieve its intended results related to transversal themes.	3 - unsatisfactory	Gender mainstreaming, handled after the implementation of the activities as an individual thematic and not mainstreamed. Vulnerability was not considered in targeting the mitigation measures to implement
If an additional sub-criteria is relevant please formulate it here	select	Click here to enter text.
Efficiency	<i>U</i>	
9. The extent to which the intervention delivers the results (outputs, outcomes) cost-effectively.	3 - unsatisfactory	Heavy reliance on consultants to achieve the results whereas some local stakeholders could provide the service (Sharr Mountain National Park, PENF) Efficiency of the mitigation measures /landslide stabilization not provided and not proven (Staro Selo, Senokos-Lomnica) Optimization of the technical options possible to spare money (Bogovinjska river) Energy efficiency : high costs of consultancy regarding the costs of equipment and without awareness raising Equipment provided to municipalities not related to capacity building activities

Key aspects based on DAC criteria	Score	Justification (Provide a short explanation for your score or why a criterion was not assessed)
10. The extent to which the intervention delivers the results (outputs, outcome) in a timely manner (within the intended timeframe or reasonably adjusted timeframe).	3 - unsatisfactory	Delays in construction permits – misunderstanding for the content of the requests (MoEPP, municipalities), technical documentation not exhaustive regarding the requirements of the ministries. Miss of communication, coordination Turnovers of PMU staff with long periods without PM – slow down the implementation (8 + 5 months) Delays in construction works : lack of participatory approach with the communities before the implementation
11. The extent to which management, monitoring and steering mechanisms support efficient implementation.	3 - unsatisfactory	Turnovers of PMU staff with long periods without PM Mitigation measures for PM replacement not effective Lack of Project Board meetings to support the facilitation of the implementation Lack of reactivity to mitigate the risks in the implementation : Staro Selo (national park), Shipkovica (communities) – Source of conflicts Monitoring and reporting of the implementation not regarding the indicators
If an additional sub-criteria is relevant please formulate it here	select	Click here to enter text.
Impact	S	
12. The extent to which the intervention generated or is expected to generate 'higher-level effects' as defined in the design document of the intervention. Note: when assessing this criterion, the primary focus is the intended 'higher-level effects'. In the event that <i>significant</i> unintended negative or positive effects can be discerned, they must be specified in the justification column, especially if they influence the score.	2 - satisfactory	Guidelines to mainstream DRR in urban planning Flood risk management plan, hazard and risk maps Nature based solutions concepts
If an additional sub-criteria is relevant please formulate it here	select	Click here to enter text.
Sustainability	U	
13. The extent to which partners are capable and motivated (technical capacity, ownership) to continue activities contributing to achieving the outcomes.	3 - unsatisfactory	Partners are motivated to continue activities but need to have capacity building activities to be able to manage similar activities. Until the moment of the evaluation, partners were not part of the implementation process as leader but as beneficiaries.

Key aspects based on DAC criteria	Score	Justification (Provide a short explanation for your score or why a criterion was not assessed)
14. The extent to which partners have the financial resources to continue activities contributing to achieving the outcomes.	3 - unsatisfactory	Lack of financial resources but variable from one municipality to another. MoEPP can not hire additional staff to manage the project and continue activities because of a lack of budget Hope to have more budget in Centre of regional development from MoF in the next years
15. The extent to which contextual factors (e.g. legislation, politics, economic situation, social demands) is conducive to continuing activities leading to outcomes.	3 - unsatisfactory	Uncertainties with 2024 parliament elections and political rivalries Risk of change in ministries but normally not in technical staff. No change in legislation for almost 2 years because of elections. Low opportunities to change risk financing and insurance system. Socio-economic current situation with inflation is increasing the need to target the most vulnerable people
If an additional sub-criteria is relevant please formulate it here	select	Click here to enter text.

Additional information (if needed): [Click here to enter text.](#)

Annex 3 Complete list of stakeholders and others consulted and interviewed.

EVALUATION OF THE UNDP DRR PROGRAMME Improving Resilience to Floods in the Polog Region					
Date	Time	Name of the institution	Name of the contact person	Contact details	Place of meeting
20.04.2023	10:30 - 11:15	SECO - desk Bern	Marisa Ruoss, programme manager SECO Françoise Salamé, former programme manager in charge of SECO programme in MK	marisa.ruoss@eda.admin.ch francoise.salame@eda.admin.ch	Online
21.04.2023	10:45 - 12:30	CTA	NDR consulting, Markus Zimmermann, DRM Expert	markus.zimmermann@ndr.ch	Online
02.05.2023	Expected Arrival of Constance Jaillet in Skopje Airport				
03.05.2023	09:30-12:00	Swiss Embassy Skopje SDC and SECO	Stanislava Dodeva, programme manager Ambassador Véronique Hulmann, Carmen Tönissen, Swiss Regional Advisor on Water and Environment	stanislava.dodeva@eda.admin.ch	Swiss Embassy in Skopje
	13:00 -14:00	Expert / Former UNDP	Dimitrija Sekovski, former project manager, design of project document	dimitrija.sekovski@gmail.com 070 367 231	UNDP office in Skopje
	14:00 - 15:00	UNDP Programme manager	Anita Kodzoman	anita.kodzoman@undp.org 070 304 997	UNDP office in Skopje
	15:00 - 16:00	UNDP Project manager	Ljubica Teofilovska	ljubica.teofilovska@undp.org 075 499 199	UNDP office in Skopje
	16:00 - 17:00	UNDP Resident Representative	Armen Grigoryan	armen.grigoryan@undp.org 02 3249 502	UNDP office in Skopje
04.05.2023	09:00-10:00	Public Enterprise National Forests	Mare Basova, Deputy director of sector for cultivation, forestry, ecology, and hunting	Mare.Basova@mkdsumi.com.mk 070 223 380	Office of Public Enterprise National Forests
	10:00-12:00	Ministry of Environment and Physical Planning - Water Department	Ylber Mirta, Head of the Department	ymirta@gmail.com	MoEPP
	13:00-15:30	Crisis Management Center	Stevko Stefanoski, Head of CMC national office	stevko.stefanoski@cuk.gov.mk	CMC
	16:00-17:00	Insurance Supervision Agency	Darko Blazevski, Expert	darko.blazevski@aso.mk 070 336 618	Skopje
05.05.2023	09:00-10:00	BIRC - NGO in Tetovo Balkan Institute for Regional Cooperation	Lorik Idrizi, journalist	lorik.idrizi3@gmail.com	SEEU Tetovo
	10:30-11:30	Municipality of Gostivar	Arben Taravari, Mayor	00 389 42 21 35 11 info@gostivari.gov.mk	Municipality of Gostivar
			Zudi Xhelili, Adviser for environment (Network member)	Zudixhelili768@gmail.com 00 389 70 675 125	Municipality of Gostivar
	11:30-12:30	CMC Regional office Gostivar	Jovanka Stavrevska, Head of the Regional Office in Gostivar (Network member)	rcukgostivar@cuk.gov.mk , 075-317-767	Municipality of Gostivar
		DPR Regional office Gostivar	Lirija Sulejmani, Head of the Regional Office in Gostivar (Network member)	gostivar@dzs.gov.mk , 075-457-550	Municipality of Gostivar
		Site visit in Gostivar			Gostivar
	13:30-17:00	Municipality of Vrapcishte	Isen Shabani, Mayor	isenshabani@yahoo.com 075 271 215	Municipality of Vrapcishte
			Ibrahim Mamuti, Legal Affairs Officer	ibrahimmamuti@komunavrapcisht.gov.mk 070 325 247	Municipality of Vrapcishte
			Fluturim Neziri, Officer in the Unit for Urban Planning and Environment	fluturimneziri@gmail.com 071 347 637	Municipality of Vrapcishte
			Site visit in Vrapcishte	Landslide Senakos and Lomnica, Hydromet Equipment	
08.05.2023	08:00-09:00	Center for Development of the Polog Planning Region	Fatmir Saiti, Director	manager@rdcpolog.mk 075477910	Skopje
	09:00-11:00	PointPro	Danco Uzunov	danco.uzunov@pointpro.com.mk 070279252	UNDP office in Skopje
		Faculty of Civil Engineering - Hydrology	Milorad Jovanovski, Professor	jovanovski@gf.ukim.edu.mk 070-236-962	UNDP office in Skopje
		Hans Em Faculty of Forest Sciences	Vlatko Andonovski, Pofessor	Vandonovski5@gmail.com 072-228-824	UNDP office in Skopje
		Hans Em Faculty of Forest Sciences	Bojan Simovski, Professor	bokaco@gmail.com 075 258 118	UNDP office in Skopje
		Faculty of Architecture	Divna Pencic, Professor	divnapencic@yahoo.com 078 388 040	UNDP office in Skopje
	12:45-13:45	DRR Expert	Vasko Popovski	vasko.popovski.vp@gmail.com 070 364 840	Skopje
	14:00-15:00	Directorate for Protection and Rescue	Bakim Maksuti, Director of the Protection and Rescue Directorate	Bekim.maksuti@dzs.gov.mk 070 303 098	Directorate for Protection and Rescue, Skopje
15:30-17:00	Hydrometeorological Service	Ivica Todorovski, Director	uhmr@meteo.gov.mk ivica.todorovski@meteo.gov.mk 075 214 493	Hydromet	
09.05.2023	10:00-12:00	Municipality of Tetovo	Bilall Kasami, Mayor	bilalkasami@gmail.com 075-495-288	Municipality of Tetovo
			Mensur Aliti, Head of the Cabinet of the Mayor	bilalkasami@gmail.com 00389 70 308 254	Municipality of Tetovo
			Basri Mehmedalija, Member of the Cabinet and Adviser of the Mayor	Basri.m@hotmail.com 00389 71 560 664	Municipality of Tetovo
	09:00-10:00	CMC Regional office Tetovo	Arlinda Muharemi, Head of the Regional Office in Tetovo	rcuketovo@cuk.gov.mk , 071-342-592	Municipality of Tetovo
		DPR Regional office Tetovo	Arif Arifi, Head of the Regional Office in Tetovo (Network member)	tetovo@dzs.gov.mk, 070-426-614	Municipality of Tetovo
		Firebrigade Tetovo	Avni Ameti, Commander (Network member)	avniameti77@gmail.com , 070-851-106	Municipality of Tetovo
		Public Communal Enterprise Tetovo	Daut Memishi, Director of the Public Communal Enterprise (Network member)	dautmemishi@gmail.com , 071-842-747	Municipality of Tetovo
	13:00-14:00	National Park Sharr Mountain	Ibrahim Dehari, Director	76355555	Municipality of Tetovo
14:00-17:00	Site visit Shipkovica	Afforestation, Shipkovica flood protection		Tetovo	

EVALUATION OF THE UNDP DRR PROGRAMME
Improving Resilience to Floods in the Polog Region

Date	Time	Name of the institution	Name of the contact person	Contact details	Place of meeting
10.05.2023	09:30-11:00	Municipality of Jegunovce	Dimitar Kostadinovski, Mayor	Dime.kostadinovski@yahoo.com 071-329-457	Municipality of Jegunovce
			Jana Serafimovska, Officer in the Unit for Urban Planning and Environment	Janaserafimovska88@gmail.com 075-352-387	Municipality of Jegunovce
	11:00-14:00	Site visit Jegunovce	Vardar Riverbed, Staro Selo Landslide (Rockfall), Energy Efficiency School Building, Hydromet instrumentation		Municipality of Jegunovce
	14:30-15:30	Municipality Bogovinje	Besnik Emshiu, Mayor	besnik@komunabogovine.gov.mk 071 666 260	Municipality Bogovinje
			Nuriman Tevfiki, Head of the Department for Public Affairs	nurimantefiku@yahoo.com 071 329 804	Municipality Bogovinje
			Habir Havzija, Head of the Unit for Urban Planning	habir.ing@gmail.com 070 298 356	Municipality Bogovinje
		Rinora Asani, Officer in the Local Economic Development Unit	rinora_asani@hotmail.com 070 375 888	Municipality Bogovinje	
15:30-17:00	Site visit Bogovinje	Riverbed Rehabilitation, Energy Efficiency Household		Municipality Bogovinje	
11.05.2023	09:00-10:00	Ministry of Finance	Shirete Elezi, Advisor of Minister of Finance	38972303059	Ministry of Finance
	11:00-13:30	Municipality of Zelino	Blerim Sejdiu, Mayor	Blerim.municipality@gmail.com 070-375-888	Municipality of Zelino
			Kreshnike Idrizi, Head of the department for urban planning and environmental protection	kreshnikeidrizi@gmail.com 071-306-888	Municipality of Zelino
			Sedat Rushani, Director of the Public Enterprise at the Municipality of Zelino	sedadrushani@gmail.com 071-652-952	Municipality of Zelino
			Shaban Limani, Independent officer for protection and rescue	sss.sabo2011@gmail.com 070-455-989	Municipality of Zelino
	Site visit Zelino	Energy Efficiency School Building, landslide		Municipality of Zelino	
14:30-16:00	Debriefing, Swiss Embassy Skopje	Ambassador Véronique Hulmann, Stanislava Dodeva, programme manager Carmen Tönissen, Swiss Regional Advisor on Water and Environment		Swiss Embassy in Skopje	
12.05.2023	Travel to Switzerland				
23.05.2023	10:00 - 10:30	Swiss Embassy Skopje	Mirjana Makedonska - SDC	mirjana.makedonska@eda.admin.ch	Online

Annex 4 List of the documents reviewed

1. Project Document “Improving Disaster Resilience to Floods in Polog Region”
2. Credit Proposal – 07/11/2018
3. Progress Reports – Annual and 6-month Progress Reports (8 documents)
4. Project Extension_Change of Credit Duration
5. Additional Credit – 02.2022
6. CTA Markus Zimmermann mission reports
7. Transitional Plan
8. Draft Proposed Contract for Resilient Polog Network – Not the Signed Document
9. Overall/general Preparedness Plan for Polog Region – GTI DHI
10. Capacity Development Plan for Disaster Risk Management (2023-2027)
11. Energy Efficiency – Feasibility Assessment of Alternative Heating
12. Energy Efficiency – Economic Analysis and Financing Strategy
13. Flood Risk Financing and Risk Transfer in Macedonia
14. Flood Risk Management Plan for Polog_ Upper Vardar
15. Holinger_Development of Design Concepts
16. Improving Preparedness to floods_Early Warning Systems
17. Improving Preparedness to floods – Inception Report
18. Resilient Polog – Capacity Assessment
19. Resilient Polog – Capacity Assessment Plan
20. Sediment Study – Executive summary
21. Sediment Study – Final Report
22. Social Research Report
23. Public Awareness Videos
24. Early Warning System Plan – Polog Region
25. Urban Runoff Report Gostivar
26. Urban Runoff Report Tetovo
27. Prospects for Flood Risk Management Upgrade (report and list of participants in the workshops)
28. Guidelines for including disasters risks of floods in urban planning_ Kamenjane
29. Evaluation of Pirok Drill – in Macedonian
30. Socio Economic Assessment of Gostivar and Tetovo Cities
31. Technical Documentations – Rivedbed Rehabilitation – Bogovinjska River
32. Technical Documentation of the Torrent in Shipkovica reviewed at the site – file provided by the construction company
33. Municipality Flood Defense Plans

Annex 5 Analysis of the intervention logic (logframe or ToC): extent to which objectives have been achieved.

ANNEX 5 - Analysis of the achievements of the programme regarding the logframe

IMPROVING RESILIENCE TO FLOODS IN THE POLOG REGION

SDC 20.11.2017 - 31.12.2023 5 450 000 CHF
 SECO 05.12.2008 - 31.12.2023 CHF

					Results	
Output indicators	Targets	Means of verification	Sources	Quantitative	Comments - qualitative evaluation	
Output 1.1 (SECO)						
A flood risk Management Plan for the Polog Region is established in accordance with the EU Floods Directive and DRR principles (SECO)	1.1 Flood Risk Management Plan for the Upper Vardar Basin developed through a consultative process with key stakeholders	1.1.1 flood risk management plan regularly updated (2021, 2023)	Project reports Flood Risk Management Plan	SDC/SECO UNDP PMU CTA PointPro Municipalities of Tetovo, Gostivar, Bogovinje, Vrapcishte, Jegunovce, Zelino	1 FRMP - June 2018 1 updated FRMP - 2021 1 updated FRMP - 2022 1 report on sediment study 1 report on erosion study	Action plan related globally to the priorities of Sendai Framework but not related to hazard and risks maps at a local scale FRMP needs to be updated considering more in details vulnerability criteria: version of June 2018, recommendations made at the end of the report to include in further updates, as in the strategy document for national level (output 4.1) with consideration of socio-economic vulnerability.
		1.1.2 Flood hazard and flood risk maps for all nine municipalities of the Basin (2022)	FRMP 1st update 2021 FRMP 2nd update 2022 8 Municipal Flood Defense Plans (no update, developed in 2020)	CMC National office CMC Regional offices of Tetovo and Gostivar DPR national office DPR regional offices of Tetovo and Gostivar Centre of regional development	included in the Municipal Flood Defense Plans and FRMP flood, erosion and landslide maps existing for the 8 municipalities according to PointPro (delivered to UNDP) Joint Administrative Unit – signing in April 2023 (Document was not provided, Facebook UNDP account: posi) 3 Workshops on FRMP to regional and local level – Resilient Polog network	2D modelling in HEC-HMS and HEC-RAS - but without the sediment transportation and not combined with mudflows phenomena This approach will be developed and experimented during the Feasibility study in Poroj no dissemination to the stakeholders with explanation of the maps, just presented in workshops to Polog Resilient Network
Output 1.2 (SECO)						
Authorities are equipped with new knowledge to mainstream flood risk mitigation and DRR priorities in future municipal urban and other development plans	1.2 capacities of relevant authorities to mainstream flood risks mitigation and DRR priorities in future municipal urban and other development plans increased	1.2.1 At least 3 case studies completed on mainstreaming DRR / Flood risk mitigation priorities in urban plans/planning documents (2022)	DUP Kamenjane (Bogovinje) DRR mainstreaming guidelines Municipality Flood Defense Plans	UNDP PMU CTA Municipality of Bogovinje, Municipality of Tetovo Urbanist consultant	1 DUP in Bogovinje - village of Kamenjane GUP Tetovo postponed in 2023	DUP Kamenjane – good experience and participative approach with Bogovinje municipality Delay on GUP Tetovo due to change of legislation, but long process, few chance to finish it before end of 2023
		1.2.2 Nine municipal flood defence plans aligned with the objectives of the FRMP (2022)	Progress reports	UNDP PMU CTA Municipalities of Tetovo, Gostivar, Bogovinje, Vrapcishte, Jegunovce, Zelino	Municipal Flood Defense Plans : First draft available for the 8 municipalities to update and align with FRMP (planned in 2023) draft of Bylaw (nov 2022)	draft of Municipal Flood Defense Plans include hazard and risk analysis but no action plan aligned with FRMP
		1.2.3 Guidance documents on risk based urban planning developed (2023)		UNDP CTA Municipalities of Tetovo, Gostivar, Bogovinje, Vrapcishte, Jegunovce, Zelino Urbanism consultant	1 guideline on DRR mainstreaming in urban planning (DUP & GUP) – 2022 & training course for Polog resilient network with application on Kamenjane village (Tetovo)	Guidelines really useful for municipalities (urbanists) Workshop on DRR mainstreaming in urban planning useful for municipalities with practical application in Kamenjane village need of more practical exercise not focused on Tetovo need to share hazard and risks maps with municipalities to be able to replicate the process in other locations
Output 2.1 (SDC)						
Functional long term floods early warning system for the Polog region is established	2.1.1 Number of meteorological and hydrological monitoring stations made operational for the needs of the early warning system	31 (2022)	Hydrological and Meteorological Network plan (UNDP) List of stations provided by HMS visit in the field	UNDP PMU CTA DRM consultant HMS Municipalities of Vrapcishte and Jegunovce CMC national and regional offices (Gostivar & Tetovo) DPR national and regional offices (Gostivar & Tetovo)	23 (HMS) – 12 hydrological stations, 11 meteorological and rainfall stations (check in the field: 1 hydrological station in Vrapcishte 1 meteo/rainfall station in Jegunovce)	Global network proposed relevant to enhance rainfall and hydrological data and develop a effective EWS for Polog region National office of CMC has access to the data Regional offices of CMC / DPR and municipalities don't have access to the data operationality of the new stations not possible to control
	2.1.2 Number of professional personnel (from Centre for Crisis Management, Directorate for Rescue and Protection, HMS, local governments trained on the application and maintenance of the early warning system	40 (2023)			planned in Q3 2023 - capacity development plan and EWS concept Draft of EWS concept - march 2023 donation of 1 excavator to 8 municipalities	Need to have a common understanding of EWS concept with HMS, CMC, DPR at national and local level Need to Align the EWS concept with existing laws and responsibilities HMS/CMC/DPR/ municipalities Capacity building : need to combine technical approach and local EWS based on local observers, low capacities of HMS to consider in the effort to develop HEC-HMS/RAS modelling Equipment donated to CMC and DPR and municipalities (excavators, IT equipment, cars) without any relation to capacity building activities

ANNEX 5 - Analysis of the achievements of the programme regarding the logframe

IMPROVING RESILIENCE TO FLOODS IN THE POLOG REGION

SDC 20.11.2017 - 31.12.2023 5 450 000 CHF
 SECO 05.12.2008 - 31.12.2023 CHF

					Results	
Output indicators	Targets	Means of verification	Sources	Quantitative	Comments - qualitative evaluation	
Output 2.2 (SDC)						
Flood disaster response capacity is improved through public awareness campaigns on early warning system and inclusive drills (SDC)	2.2.1 - Changes in the community awareness about flood preparedness (population with improved knowledge)	increased knowledge and understanding on preparedness to floods - 8 on the scale of 10 (2023)	capacity development plan EWS concept	UNDP local population Regional offices of CMC and DRP,	Part of the capacity development plan - preparation of Awareness raising campaign in Poroj and Gjerme only in 2023 (CBDRM approach)	Awareness raising in the communities is part of the capacity development plan and part of the EWS concept Activities of awareness raising planned in Q3-Q4 2023 for EWS
	2.2.2 number of drills implemented	2 (2022)	community surveys project reports	Municipalities of Tetovo, Gostivar, Bogovinje, Vrapcishte, Jegunovce, Zelino DRM consultant	1 in Pirok (School) in 2022 Flash Flood and landslide 2 TTX scenarios in flash flood for 2023 – Tetovo and Bogovinje Videos	No involvement of CMC/DPR Gostivar in Pirok Drill (capacity building opportunity), lack of inclusion of local NGOs and influent people of the community Content of the drill : Scenario of flash flood and landslide, more emergency response after the disaster than early warning system : baseline before the EWS concept implementation Drills planned in Q3 - Q4 of 2023 after the implementation of EWS to monitor the change of behavior and effectiveness of early warning system good perception of drills by the population, CMC, DPR and municipalities video not on preparedness and EWS but on the programme activities. One video on the women vulnerability during natural disaster
Output 3.1 (SECO)						
Urban resilience is improved through implementation of priority state-of-the-art flood risk mitigation measures (SECO)	3.1.1 Number of priority flood risk mitigation measures in urban areas implemented	At least 3 priority flood risk mitigation measures in urban areas implemented (2023)	Holinger report on Nbs design projects but not the signed documents ToRs, RfQ Field visit in Shipkovic, Bogovinjska river, Vrapciste landslides/rockfalls and Jegunovce visit of the sport terrain in Gostivar	UNDP PMU CTA Construction companies Beneficiaries (population) Municipalities of Jegunovce, Gostivar, Tetovo and Bogovinje	Bogovinje – Bogovinjska river (1,2 km) - realized in 2022 Vardar river in Gostivar (9 km) - in design phase Vardar river - Jegunovce (8,5 km) - in design phase Shipkovic - end of the construction work during the visit in May 2023 feasibility study in Poroj - planned for 2023	Other mitigation measures planned before the end of 2023 : - Vardar river - Gostivar (9 km) - planned after the end of the programme - Vardar river - Jegunovce (8,5 km) - planned after the end of the programme - Shipkovic - end of the construction in the village in May 2023, conflict with the local community regarding the road access on the river path. - Feasibility study in Poroj following an integrated risk management approach (landslides and floods) planned in 2023 Delay to start the construction works : due partly to covid constraints in 2020-2021, to the delays to establish the technical documentation needed to receive construction permits (missing elements in the requests), to the coordination/information sharing mechanisms between the municipalities and MoEPP. Elections in 2021 were not affecting the delivery of construction permits in Polog Region, only a specific political issues exist in Tetovo because of the specific financial situation of the municipality. All municipalities visited are delivering a construction permit in max 10 days based on the adapted documentation, MoEPP is legally binded to deliver a coordinated notice in 1 month. Nature Based Solutions are included in different levels in the projects : not in Bogovinjska river project but partially in Skipkovic. The verification for Vardar river projects in Gostivar and Jegunovce was not possible (no design plans with the technical specifications). Engineers in charge of the design of the projects need to be supported by a swiss engineer to understand and apply the Nbs concept in the design of UNDP projects (based on Holinger report), as Nbs is not the state-of-the-art in North Macedonia. Cost-efficiency of the mitigation measures is confirmed but without considering the costs of design studies, construction permits, supervision consultancies, so could be different. The analysis doesn't mention the number of persons protected by the mitigation measures. It also doesn't take into consideration the permanent and temporary residents and specific vulnerabilities. CBA guidelines would be helpful to have a same basis to analyse the relevance of all the mitigation measures proposed in the Polog region to prioritize the risk reduction actions Participatory and inclusive approach: Communities were not involved in the process of decision making and in the development of design projects but informed before the beginning of the construction work : issues now in Shipkovic because communities were not consulted before the construction to discuss the construction details (road access to the houses) Municipalities not involved in the tendering process as observers : transparency issues and lack of information regarding local enterprises Process to choose the municipalities beneficiaries of the mitigation measures not documented. Disparity of the mitigation measures implemented regarding the 8 municipalities observed without correlation to the level of flood risk, the number of inhabitants threatened or the socio-economic vulnerability of the population of each municipality.
	3.1.2 Number of urban resilience measures implemented in Tetovo and Gostivar	At least one priority measures for urban resilience measures implemented in Tetovo and in Gostivar (2022)	Municipalities of Gostivar and Tetovo UNDP PMU CTA	Runoff studies in Gostivar and Tetovo Gostivar – cleaning of stormwater network (4,4 km in 2022 and 2,2 km planned in 2023) - ToR and RfQ -tendering in 2023 construction of a multi-purpose sport terrain in Gostivar (N/A) Tetovo – new stormwater network (1,1 km) extension of stormwater network pipelines along “Braka Miladinovi” and “Ohridska” streets - design project and ToR for tendering	Runoff studies existing and identifying the appropriated resilience measures Verification of Gostivar stormwater network cleaning made in 2022 not possible (no documentation provided), but municipality of Gostivar satisfied of the work. no documentation about the construction of the multi purpose sport terrain in Gostivar, but construction work on going during our visit in the field construction work planned in Tetovo and Gostivar are relevant to reduce runoff in the cities. The implementation of the additional measures (cleaning of stormwater network or construction of new stormwater pipelines or multi-purpose sport terrain) are good measures reduce efficiently flood risk in the cities	

ANNEX 5 - Analysis of the achievements of the programme regarding the logframe

IMPROVING RESILIENCE TO FLOODS IN THE POLOG REGION

SDC 20.11.2017 - 31.12.2023 5 450 000 CHF
 SECO 05.12.2008 - 31.12.2023 CHF

					Results	
Output indicators	Targets	Means of verification	Sources	Quantitative	Comments - qualitative evaluation	
Output 3.2 (SDC)						
Rural communities have increased resilience to floods through practical application of targeted low-cost nature-based measures	3.2.1 Number of nature-based measures implemented in rural areas	7 (3 landslides and 4 restoration of riverbeds) - 2023	design projects CTA mission reports visit in the field in Senokos-Lomnica, Staro Selo, Dolna Lesnica exchange with beneficiaries and municipalities representatives progress reports	UNDP PMU CTA Sharr mountain national park Beneficiaries in the population Municipalities of Vrapcishte, Jegunovce, Zelino	7 landslides mitigation measures : Pirok – construction work ongoing Jelovjane – construction work completed Senokos – Lomnica - construction work ongoing (visit in the field) Staro Selo – suspended / Sharr Mountain National Park (visit in the field) Dolna Lesnica : construction work ongoing (visit in the field) Bozovce: N/A Pena : N/A Cleaning of riverbed in Zelino	7 landslide design projects developed and currently under construction, no cost benefit analysis Quality of the construction needs to be controlled in Senokos-Lomnica and Dolna Lesnica and by extension to all the other landslide mitigation measures to ensure the technical effectiveness of the measures as planned in the design project. Quality control delegated by UNDP to the official legal supervisor (for construction work) and to external civil Engineer (Local Consulting Engineer - Construction Expert) for the design projects without a mandatory approval of CTA (inclusion of Nbs) Cost Benefit ratio of the measures not documented and not clear. Ex in Dolna Lesnica, construction work for 150 inhabitants. CBA should also take into consideration the permanent residents and the temporary residents (diaspora) Staro Selo : Rockfall hazard and not landslide. Cost benefit ratio not clear. Issues with National Park with the opening of a road in the forest in the National Park. Need to find a solution (compensation through afforestation) with Sharr Mountain National Park to restart and complete the construction work Many intermediates in the construction work with a non-local contractor with a local subcontractor (Senokos-Lomnica)
	3.2.2 Number of hectares reforested as anti-erosive measure	2 ha (2023)	progress reports handover certificates (UNDP-Municipalities) field visit interviews exchange with beneficiaries	UNDP PMU forestry consultants (universities) Public Enterprise National Forests Sharr mountain national park Beneficiaries in the population Municipalities of Tetovo, Gostivar, Bogovinje, Vrapcishte, Jegunovce, Zelino	Afforestation of 41 ha (38 ha in 2022 and 3 ha in 2023): Bogovinje : 2 locations - 6 ha in 2022 + 3 ha in 2023 Sharr Mountain national park : 5 locations - 32 ha Irrigation system nursery plant in Kumanovo Signing of MoU with PE "Nacionalni Sumi" for afforestation Energy efficiency measures Pellet stoves in Vrapcishte Tetovo : kindergarten (green roof) Gostivar : Elementary school (green roof) Zelino : 28 inverters in school (visit of one school) Brvenica : pellet in 3 schools Jegunovce : 18 inverters in 6 schools (verification made with the handover certificate, visited one school) Bogovinje : 35 households (visit of one household)	Afforestation : good results regarding the survival of the plants but nothing planned for 5-year maintenance and awareness raising of the river basin population on forest protection. Need to involve the Sharr Mountain national Park as an active stakeholder for forest maintenance and awareness raising of the communities. Implementation could be made with less intermediate consultants benefiting from local capacities in Sharr Mountain National Park and in PE Nacionalni Sumi nursery plant located outside Polog region, so available for all North Macedonia Energy efficiency measures: Vrapcishte : pellet stoves not used because of the higher price of the pellets during winter 2022. Stoves not installed Jegunovce: inverters installed in a school and not always used because plugged on the electricity network. Project to have a common geothermic heating resource for all the city Zelino: inverters installed in a school in Trebosh with poor windows isolation : need to change the windows to enhance the energy efficiency Bogovinje : beneficiaries were not selected regarding vulnerability criteria. First requesters to the municipality received the pellet stoves
	3.2.3 Size of rural population benefiting from the implemented measures	13500 (2023)	progress reports design projects for landslides	UNDP PMU	N/A no documentation specific to each measure	to be documented for each measures as part of the justification of the efficiency of the measures / landslides mitigation measures, afforestation, energy efficiency measures
	3.2.4 Number of persons benefiting from and integrated flood/torrent management in Poroj	3862 (2023)	progress reports CTA mission reports	UNDP PMU CTA Municipality of Tetovo	Feasibility study planned in 2023	Feasibility study to review considering an integrated approach (landslides, mudflows and floods) and according to a participative and inclusive approach

ANNEX 5 - Analysis of the achievements of the programme regarding the logframe

IMPROVING RESILIENCE TO FLOODS IN THE POLOG REGION

SDC 20.11.2017 - 31.12.2023 5 450 000 CHF
 SECO 05.12.2008 - 31.12.2023 CHF

					Results	
Output indicators	Targets	Means of verification	Sources	Quantitative	Comments - qualitative evaluation	
Output 4.1 (SDC)						
National legal and regulatory framework for disaster risk reduction is improved in line with the Sendai Framework and the EU Floods Directive and risk financing and risk transfer mechanisms are conceptualized	4.1.1 Strategy and action plan for flood risk mitigation	Adopted strategy by MoEPP (2023)	progress reports CTA mission reports strategy report	UNDP PMU MoEPP - Director of Water Department Financial consultant DRM consultant	Strategy developed in nov 2022 (draft)	the document is aligned with EU flood directive including Integrated flood risk management principles, Hazard and risk mapping and flood risk management plan. Technically frequency and intensity parameters are taken into consideration in the flood hazard mapping methodology FRMP for Upper Vardar river has to be integrated into the overall Vardar river basin FRMP to be institutionalized
	4.1.2 Number of government entities involved in the preparation of the legislation and strategy/action plan as part of an interactive capacity development exercise	14 (2023)	list of participants of the workshops Agenda of the Workshops	UNDP PMU MoEPP - Director of Water Department Financial consultant DRM consultant	3 workshops in oct & nov 2022: 19.10 - 10 different government entities (Bitola, Ohrid) 26.10 - 10 different government entities (East Macedonia, Stip) 02.11 - 21 different government entities (Polog Region, Skopje)	Participatory approach implemented but not possible to verify the content of these workshops, the active participation of the governmental entities invited and the evolution of the strategy regarding the remarks and comments during these workshops
	4.1.3 Number of persons/professional personnel from governmental entities (M/F) who have built their capacity in disaster risk management	30 (2023)	progress reports Capacity development plan Transition Plan	UNDP PMU MoEPP - Director of Water Department Financial consultant DRM consultant	Capacity development plan developed (feb. 2023) and Transition Plan developed (feb. 2023), including capacity building activities on DRM for governmental entities but in Q4 2023	incongruence in the timeline of Capacity development plan until 2027 (beyond the end of the programme) and the transition plan in 2023-2024. Sustainability strategy including the ownership of the governmental entities has to be reviewed to transfer progressively the leadership on ongoing activities to the relevant stakeholders according to their roles and responsibilities through on job training courses including practical applications (ToT, on job training, technical/advising support, and independence)
	4.1.4 Platform for strategic dialogue established and operational	May 2022	progress reports Project document Additional credit SDC interviews	MoEPP - Director of Water Department CMC - national office DRP - national office UNDP - Programme manager and Resident representative CTA mission reports SDC/SECO	legally established by the MK government but not operational	Official legal DRR platform is existing but not operational because of political issues to consider if CMC and DRP have to be merged in a same ministry. The DRR national coordinator assigned was more an honorific position not ready to create a dynamic coordination work in DRR. During the interviews, we learnt that the DRR national coordinator resigned and was not replaced as far. Options to create an additional platform in parallel of the official one to handle the coordination of the different donors is not considered as suitable regarding the ownership of the national institutions. Coordination of the donors could be preferably made through MoEPP, CMC, UNDP and Secretariat of EU affairs for the needs of the programme. Up scaling potential should also be developed through MoEPP, CMC and DRP
	4.1.5 Number of platform meetings	At least 2 per year			none	
Output 4.2 (SECO)						
Risk financing and risk transfer mechanisms are conceptualized and advocated to become part of the national-level flood risk mitigation strategy	4.2.1 Risk financing and risk transfer mechanisms are conceptualized and advocated to become part of the national-level flood risk mitigation strategy	Series of policy dialogues on central and local level organized (2022)	progress reports Road map on Risk financing and risk transfer interviews	UNDP PMU SECO HQ Bern and Embassy Finance & insurance consultant MoF MoEPP Municipalities of Tetovo, Gostivar, Bogovinje, Vrapcishte, Jegunovce, Zelino Center for Development of the Polog Planning Region	Road map for implementation of Risk Financing and Risk Transfers developed (nov 2020)	Document not shared with other major stakeholders (MoEPP, MoF, Insurance Supervision Agency, MoEPP) Action plan is developed for 6 years so not adapted to the duration of the programme Road map and action plan have to be reviewed regarding the evolution of the context, the leadership of the ministries in charge (MoF, MoEPP, MoA) and previous experiences with other programmes as EuropaRe. Penetration of insurance experienced by MoA regarding the crops, is less than 4% of farmers after the implementation of EuropaRe because of the non mandatory status of insurance in the laws and the highly sensitive political context regarding this topic. Lack of ownership of MoF, MoEPP and MoA on that subject. CBA guidelines could be developed as a criteria to consider to prioritize the national and regional investments on prevention measures.

ANNEX 5 - Analysis of the achievements of the programme regarding the logframe

IMPROVING RESILIENCE TO FLOODS IN THE POLOG REGION

SDC 20.11.2017 - 31.12.2023

5 450 000 CHF

SECO 05.12.2008 - 31.12.2023

CHF

					Results	
Output indicators	Targets	Means of verification	Sources	Quantitative	Comments - qualitative evaluation	
Output 5.1 (SDC & SECO)						
Project knowledge, lessons learnt, and best practices are systematized and shared nationally and internationally	5.1.1 Number of knowledge products drafted and presented	At least 7(2023)	progress reports FRMP, sediment study, runoff studies, energy efficiency, hazard and risk maps, Holinger design concepts report, EWS concept... interviews	Universities UNDP PMU CTA Municipalities MoEPP	Documents developed : Erosion study, sediment study, runoff studies, Design concepts (NbS), FRMP, Hazard and risk maps (flood, erosion, landslide), EWS concept, guidelines for DRR mainstreaming in urban planning capacity building of relevant stakeholders is planned from 2023 to 2027	Documents were presented during workshops by the consultants hired by UNDP at the end of their mandates to some stakeholders but were not disseminated to them (flood hazard and risk maps, erosion maps, landslide maps, FRMP...) Transfer of knowledge and know-how were made exclusively through short missions or workshops by international/ swiss consultants, but is not sufficient to create and improve the capacities of the stakeholders The dissemination of the information and knowledge for the different components of FRM was not targeted regarding the roles and responsibilities of the stakeholders (ex : Gostivar DRP and CMC not involved in TTX in Tetovo, DRR mainstreaming in urban planning made to CMC/DRP regional offices in Gostivar with application in Tetovo) Specific training courses with practical applications to the persons who are legally in charge of similar activities have to be implemented for a progressive capacity building and enhancement of the DRR/DRM actors ownership and leadership during the transition phase. A review of the capacity development plan and the transition plan have to be carried out, focusing on ToT, on-job training and practical approaches regarding the roles and responsibilities of the actors and the different components of FRM.
	5.1.2 Thematic lessons learned from the relevant project interventions	At least 2 thematic lessons learned captured and shared with relevant national stakeholders (2023)	progress reports interviews with municipalities	Universities UNDP PMU CTA MoEPP, MoF	capacity building planned in 2023 FRMP was shared with the national stakeholders (output 4.1)	Capacity building was not made following directly the end of each activity but postpone to the end of the implementation of the phase Important documents as Hazard and risk maps were not shared with national stakeholders (CMC, DRP, Universities, MoEPP) NbS approach was not shared until now with the relevant national stakeholders (Universities, MoEPP)
	5.1.3 Number of documents mainstreaming gender considerations	20 (2023)	progress reports interviews with municipalities	UNDP PMU Municipalities of Tetovo, Gostivar, Bogovinje, Vrapcishte, Jegunovce, Zelino	targeted training course planned in 2023, as well as inclusion of gender thematic in FRMP gender disaggregated numbers of the participants in the workshops not available	thematic not mainstreamed in the different outputs of the programme but handled as a specific independent topic with a specific training course and revision of FRMP

 achieved

 partially achieved

 not started