



Terms of reference:

Development of risk financing and risk transfer (mechanisms) strategy for the Drin Basin

In the framework of the: “The Integrated Climate-Resilient Transboundary Flood Risk Management in the Drin River Basin in the Western Balkans”
(Drin FRM Project)

April 2022

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Introduction

Cooperation in the extended Drin basin

1. The Drin Basin extends in a large part of the Western Balkans (nearly 19 000 km²); it is populated by more than 1,6 million people. It consists of several sub-basins, the uppermost of which is that of the Prespa Lakes, while the lowest that of the Buna/Bojana River, adjacent to the Adriatic Sea. Shared among Albania, Greece, Kosovo*, Montenegro, and North Macedonia (the five 'Riparians'), the Drin River Basin provides water resources for drinking, energy, fishing, and agriculture, biodiversity, tourism and industry.
2. Coordinated action at the Drin Basin level has been absent until the development of the Shared Vision for the sustainable management of the Drin Basin and the signing of a related Memorandum of Understanding (Tirana, 25 November 2011) by the Ministers of the water and environment management competent ministries of the Drin Riparians.
3. The main objective of the Drin MoU is the attainment of the Shared Vision: *“Promote joint action for the coordinated integrated management of the shared water resources in the Drin Basin, as a means to safeguard and restore, to the extent possible, the ecosystems and the services they provide, and to promote sustainable development across the Drin Basin”*.
4. Following the provisions of the MoU an institutional structure was established in 2012. It includes:
 - The **Meeting of the Parties**.
 - The **Drin Core Group** (DCG). This body is given the mandate to coordinate actions for the implementation of the MoU.
 - Four **Expert Working Groups** (EWG) to assist the DCG in its work:
 - Water Framework Directive implementation EWG.
 - Monitoring and Information exchange EWG.
 - Biodiversity and Ecosystem EWG.
 - **Floods EWG**

The **DCG Secretariat** provides technical and administrative support to the DCG; Global Water Partnership – Mediterranean (GWP-Med) serves by appointment of the Parties through the MoU as the Secretariat.

5. The Parties to the MoU agreed to undertake concrete short, medium and long-term actions to address various issues, towards the integrated management of the Basin; **Developing cooperation and measures to minimize flooding especially in the lower parts of the Drin Basin** is one of the 7 identified issues (Article 3, iii) and **enhancement of cooperation in the field of flood risk preparedness, management and mutual support** is one of the short-term actions (Article 4, d) that should be implemented for achieving the MoU objective.

The Drin Coordinated Action

6. While the process of cooperation is on-going, a number of activities have already been implemented under the Drin Coordinated Action for the implementation of the Drin MoU.
7. The Global Environment Facility (GEF) supported project “*Enabling transboundary cooperation and integrated water resources management in the extended Drin River Basin*” ([GEF Drin Project, 2016-2021](#)) implemented by UNDP and executed by the Global Water Partnership (GWP) through GWP-Mediterranean (GWP-Med) has been pivotal in the implementation of the Drin MoU.
8. The GEF DRIN Project resulted in the development and the endorsement by the Drin riparians of the joint Strategic Action Plan (Drin SAP, in 2020) with more than 100 actions to be implemented in the short, medium, and long-term. The SAP further substantiates the Drin MoU. Under the SAP Goal 3: *Develop cooperation and measures to minimise flooding especially in the lower parts of the Drin Basin* Objective 1 was set to be: Management of floods risks, and droughts risks by 2030 (please see Drin [SAP](#) for more details).
9. The Adaptation Fund supported Project entitled “*The Integrated Climate-Resilient Transboundary Flood Risk Management in the Drin River Basin in the Western Balkans*” (Drin FRM Project) is designed so it is supportive to implementation of the Drin SAP’s Goal 3. The Drin FRM Project provides the framework for this assignment (more details are available in the [AF](#) project document).

Drin FRM Project

10. *The Integrated Climate-Resilient Transboundary Flood Risk Management in the Drin River Basin in the Western Balkans*” (Drin FRM Project, 2019-2024) is executed by the UNDP (IRH) for the components 1 & 3 and the Global Water Partnership – Mediterranean (GWP-Med) for the component 2.
11. The objective of the project is to assist the riparian countries in the implementation of an integrated climate-resilient river basin flood risk management approach to improve their existing capacity to manage flood risk at regional, national and local levels and to enhance resilience of vulnerable communities in the Drin River Basin (DRB) to climate-change induced floods.
12. Drin FRM Project is implemented through 3 components: Component 1 – Hazard and risk knowledge management tools; Component 2 -Transboundary FRM institutional, legislative and policy framework and Component 3 -Priority community-based climate change adaptation and FRM interventions

13. This assignment is part of Component 2, Outcome 2: *“Improved institutional arrangements, legislative and policy framework for FRM, and development of climate change adaptation and flood risk management strategy and plans at the basin, sub-basin, national and subnational levels”* - output 2.1.b.

Background

14. The Drin riparians are increasingly exposed to the impact of climate change. They are experiencing increased periods of extreme heat in the summer months and increased rainfall during the cooler seasons. According to long-term projections, the average annual temperature will increase by 2° C to 3° C by 2050 and precipitation will decrease in the summer, resulting in longer dry periods followed by more sudden heavy rainfalls. This combination increases the likelihood of floods as well as their destructive nature.
15. Historical flood data from the Western Balkans suggests a more frequent occurrence of flood events, characterized by more extreme and more rapid increase in water levels, attributed to an uneven distribution of precipitation and torrential rain, particularly over the last decade. More and larger areas and, therefore, a greater population numbers are being affected by flooding with a strong impact on national economies.
16. The indicative [maps](#) show that there is extensive flooding on the White Drin in Kosovo*, extensive flooding in the Struga area around Lake Ohrid in Macedonia, and high risk areas all along the valley of the black Drin affecting several settlements in the relatively narrow floodplains there. In the downstream part of the basin, in the Lake Skadar area, there is extensive flooding, which affects the concentration of settlements there, in both Albania and Montenegro.
17. Flood risk in riparian countries have been an important disaster factor since 2010, the frequency of floods has been observed to be increasing over time. The socio-economic vulnerability is high due to the high (9-21%) poverty rate of the Riparian countries. Poverty and unemployment are particularly widespread in rural and mountainous areas of the basin. Vulnerability factors also include poor urban planning, unsustainable water management and agricultural practices, deforestation, industrial pollution, and poor waste management in areas highly exposed to flooding.
18. In Albania, the 2010 flood event resulted in \$35 million USD in damages, while in Montenegro it resulted in \$45 Million USD, most of which occurred in the downstream areas of the Drin basin. Hence a minimum of \$80 Million USD in damages resulted. The average expected losses for Albania per year are estimated to be around \$3.2 million USD, which if prorated, would result in average annual damages of about \$10 Million basin wide.

19. Despite being predominate hazard factor, there is also no basin flood risk management strategy or plan addressing climate-induced flood risks in place. Flood risk management investment was not supported by robust climate-risk informed analysis, and there are no investment plans and no comprehensive financial risk transfer mechanisms to address flooding.
20. In the Drin riparian countries, flood defence and flood risk management are done in a reactive manner and as budgets allow. Relevant institutions have limited annual budgets to address urgent issues like structural defence needs, and currently do not take a climate risk-informed strategic approach (e.g., river basin approach) to flood risk management interventions.
21. Therefore, the Drin riparians face fiscal challenges in effectively responding to disasters. Relief, recovery, and reconstruction efforts are often constrained by limited fiscal capacity and capability, with many governments often relying on short-term international support as their primary source of post-disaster funding. Establishing the appropriate risk financing strategies can help address these challenges and build national resilience
22. In addition, there is limited to no involvement of the private sector in climate risk financing, despite the large damages that have been and would be incurred to the private sector from flooding, and the significant commercial benefits that a functional integrated flood risk management system would provide to private sector. Private sector (hydropower, forestry and agriculture) has a role in flood risk management and therefore needs to engage in its financing.
23. The Drin FRM project is trying to tackle those gaps, particularly **by development of the Risk financing and risk transfer mechanism strategy** with the aim of improvement of the institutional, legislative and policy framework for transboundary flood risk management and the development of a Drin River Basin level Integrated CCA and FRM Strategy and Plan.

Detailed requirements are presented in the section below.

Aim and Objectives of the assignment

24. The aim is to increase financial response capacity while reducing the fiscal burden generated by the government liabilities associated to the floods.
25. Objective is to develop risk financing and risk transfer mechanisms strategy to include private sector engagement and risk transfer mechanisms.

General approach

26. To achieve the objectives under this assignment, the Consultant will:
 - a) need to reach a very good understanding of the: results and outputs of the GEF Drin

Project, specifically [Flood Insurance pilot activity](#)¹; the Drin FRM project and its outputs; the flood risk situation, management and prospects regarding risk financing in the Drin Riparians and the Drin River basin.

- b) All tasks in this assignment should be looked at and presented (whenever possible) on all levels including local, sub-national, national, regional and basin.
- c) Be responsible to collect and comprehend all the available information, also that will be in local languages.
- d) Confirm each of the outputs with GWP-Med assigned manager before engaging into next tasks and consultation with the stakeholders. This validation might be extended to the Drin FRM project team and/or structures under the Drin corda (Drin Core Group and EWG on Floods).
- e) Be responsible for presenting the outputs, moderate the meetings and keeping the minutes of the meetings during consultation process.
- f) The consultants should keep a record of comments received by the stakeholders during consultation meetings and report on how they are addressed.
- g) Be available for discussion/consultation with aligned project manager and/or members of the GWP-Med /AF team as per needs. Frequent communication is requirement for this assignment.
- h) Build on the other outputs of the Drin AF project (where applicable and when available).
- i) Receive additional information and assistance by the GWP-Med staff as per needs and based on prior agreement. This assistance might be by delivering the relevant documentation, providing contacts, assisting in organization of the meetings, etc.
- j) Integrate gender disaggregated approach following on the support and recommendations from the GWP-Med Gender officer (if any).

Scope of work

- 27. Develop the appropriate risk financing strategy on the Drin basin level that can help address identified challenges and improve flood risk financing practice within the Drin riparians. Where appropriate provide an insight or analysis how this strategy will impact women and men.
- 28. The Consultant will cover with her/his work three Drin Riparians: Albania, North Macedonia, and Montenegro (as per Drin FRM project scope). Information should be presented at least at the national level and if information is available at the level of the part of the riparian and sub-basin belonging to the Drin basin.
- 29. Kosovo* is not a beneficiary of the Drin FRM project, but related information should be considered and presented (at least to the level of this available in the background documentation) particularly in assessments done at the basin level.

¹ Although focused on the two pilot areas (most affected) they are valuable source of the relevant national level information as well (particularly on the insurance market, policy development, etc.).

30. Therefore, this assignment needs to process and present findings on national level (whenever possible only from the part of the basin belonging to specific Drin Riparian²) as the government's better understanding of different risk financing approaches/mechanism and willingness to consider subsidy and/or compulsion likely will influence the viability of potential options presented.
31. In that respect, although the main risk transfer mechanisms that should be considered under this assignment are market-based- this assignment needs to cover also other mechanisms (non-market ones) as markets are still underdeveloped and there is a need to assess all supportive mechanisms for their efficiency and facilitate government engagement that could lead to the improved flood risk financing within the Drin Basin.
32. Interest of the national and sub-national governments in the Drin Basin to consider the opportunity for a regional, trans-national scheme³ should be facilitated with outputs of this assignment as well as the better understanding on the shortcomings from existing flood financing practices and potential benefits of investing in different approaches. Identify if the existing flood financing practices have any gender dimensions and considerations, if any good practices already exists or if no data at all.
33. More detailed description of the work requirements is provided in the sections below.

Description of tasks:

TASK 1: Inception report and flood risk financing overview

34. The consultant will develop:

a) Draft Inception report with:

1. Summary review of the assignment requirements (including proposals for potential ToR amendments).
2. Description of the Consultant's conceptual framework (Consultants' approach) for compliance with the requirement under tasks 1-4.
3. Description of gaps/risks identified with proposal along with proposal how to overcome them for successful implementation of the assignment.

² See the basin boundaries at: <https://dringis.org/>

³ i.e., in 2009, to implement the World Bank program of lending and technical assistance for the development of the regional catastrophe insurance market, the countries of the region created Europa Reinsurance Facility Ltd. (Europa Re) - a special catastrophe and weather risk reinsurance company. Albania, the former Yugoslav Republic of Macedonia and Serbia are the major shareholders of the company.

b) The Drin basin Flood risk financing overview report that will be result of the in-depth review of all available documentation (background information) necessary to understand flood risk management at the Drin Basin and each of the Drin Riparians by presenting (the list is not comprehensive, but indicative):

1. The flood risks (profiles)⁴ and risk holders (i.e., national, and local government, homeowners and SMEs, farmers, etc. with particular focus and analysis on the impact on women and men, where applicable).
2. Associated (accounted and unaccounted) damages and losses (economic loss and insured loss).
3. Fiscal management of the floods financing in the Drin riparians including description of the ex-post and ex-ante practices, mechanisms, and sources for flood financing in the Drin Riparians.
4. Insurance market status, existing flood insurance products and schemes and risk transfer mechanisms (if any) and its coverage and access if possible disaggregated by sex.
5. Potential flood financing gaps identified (in the past and the future) along with assessment of sufficiency and efficiency of the existing mechanisms identified (availability, timeliness, disbursement, equal access).
6. Status of private sector engagement.
7. Policy and legislative status in the Drin countries related to flood risk financing and enabling environment.

35. It is expected that the Report will heavily rely and build on the results of the flood risk financing related reports that are listed in Annex I⁵. However, it is considered responsibility of the consultant to complement the information received by its own information data research from publicly available sources (i.e., [EC JRSCD](#), EM-DAT, DesInventar, etc.) and any other documentation/sources available from the Drin riparians⁶ in order to close the potential data harmonization gaps⁷ for successful implementation of the approved Consultant's approach.

36. The report should be comprehensive yet written in a non-scientific manner (suitable for the presentation to the government officials for verification and further consultation) and used as a background document for Task 2. In that respect, the report should have an executive summary, the Drin basin and the Drin riparian overview sections. All developed technical supportive material should be presented as Annexes to the report.

37. Deliverables:

- D1. Inception report
- D2. The Drin basin Flood risk financing overview report

⁴ A comprehensive understanding of exposures to flood risk in the Drin riparians should be achieved on the basis of background documents listed in Annex I.

⁵ Documents will be delivered upon contracting the successful candidate.

⁶ i.e., National risk identification, reduction, and flood management policies. In case not publicly available, it is expected that references are provided to GWP-Med to facilitate response (see para 26 i).

⁷ To be clearly presented in the Inception report beforehand. Not obtaining the data requested would not be considered as an eligible reason for not fulfilling the ToR requirements. It is expected that the consultant, during development of the assignment, will consider for integration the results of additional reports, particularly ones from the Drin FRM Project (see Annex I).

TASK 2: Appropriate flood financing and transfer mechanisms identification

38. Based on the comprehensive overview on the status of the flood risk financing in the Drin Basin (Task 1) the Consultant will:

- a) Develop proposal for appropriate flood financing and transfer mechanisms that will:
 1. Identify possible and appropriate flood financing and transfer mechanisms (upgrade of existing or proposal or new ex-post and ex-ante financial mechanisms) considering different risk holder groups, their disaggregated access and layers of risk that the Drin riparians might be exposed to, as well as the financial instruments that are the most appropriate for financing response to floods. This should include particularly the evaluation of the market-based instruments (i.e., insurance, micro-insurance, cat bonds, parametric or index-based insurance) but also contingent financing and public financing mechanisms.
 2. Describe their potential for improvement (desired state versus present state if financial mechanism/tool already in existence or potential benefits and downsides of the proposed new mechanisms for the Drin riparians)
 3. Describe the Consultant's rationale for proposal⁸ or discarding of the potential financial instruments/mechanisms with prioritization list and respective risk holders to be involved.
 4. Describe preconditions (i.e., political will, legislation changes, demand etc.) and list necessary steps for operationalization of the proposed mechanisms (i.e., creation of SPV, regional insurance company, etc.).
 5. Describe potential and ways for more private sector engagements (national, regional, and local level) and potential basin risk transfer mechanism(s).
- b) Conduct consultation process:
 1. Present results to the stakeholders for verification and their opinion on efficiency and viability of proposed mechanisms/tools and/or basin financing scheme⁹.
 2. Refine report based on the inclusive and gender balanced consultation process and deliver final report.

⁸ May include background analyses or development of new metrics or/and indexes based on available data and Consultant's expertise

⁹ At least one mission (Albania, Montenegro, and North Macedonia) is to be envisaged at no additional costs to the Contractor- subject of the COVID-19 restrictions. In case face-to-face visits are not possible online tools should be utilized, pending prior approval from the Contractor.

39. Consultation process will be supported by GWP-Med officers in the Drin riparians with the aim to understand flood financing and transfer mechanisms that would be of most interest to the government(s).

40. Deliverables:

D3. Draft report on the potential flood financing and transfer mechanisms (before consultation process).

D4. Final report on the proposed flood financing and transfer mechanisms (after inclusive and gender balanced consultation process).

TASK 3: Develop basin flood risk financing and risk transfer strategy

41. Based on the Results of the Task 1 & 2 and having in mind other aspects of comprehensive basin risk financing and risk transfer strategy, the Consultant will prepare a basin risk financing and risk transfer strategy that will contain (inter alia):

1. Status on flood risk financing and risk transfer in the Drin Basin and the Drin Riparians
2. Objectives to be achieved and sources of financing
3. Description of the suggested flood financing schemes and associated flood financing transfer mechanisms along with their implementation scale (i.e, international, basin-wide, national, local...) and associated risk holders
4. Necessary preconditions to be met for successful implementation (i.e., legal and policy changes, budgetary interventions, new risk assessments, etc.)
5. Other supporting elements of a comprehensive flood risk financing and transfer strategy (i.e., potential need for enhancing knowledge on flood risks and financial protection, information collection and data management, loss assessment procedures, public awareness, insurance culture, equal access, etc.)
6. Pathways for development of proposed schemes and associated flood financing and transfer mechanisms (Roadmap) including steps for further development of the proposed financing and transfer mechanisms

42. At the beginning of the Task 3, the Consultant will provide annotated outline of the Strategy for discussion and approval.

43. Deliverables:

D5. Draft basin flood risk financing and risk transfer strategy

D6. Final basin flood risk financing and risk transfer strategy

TASK 4: Guide further development of priority risk financing and transfer mechanisms, products, and tools

44. Based on the outcome of the Strategy, the Consultant will guide in further development¹⁰ of the priority basin risk financing and transfer mechanisms, products, and tools by:

1. Preparing technical requirements for further development of the priority risk basin financing and transfer mechanism(s), product(s), and tool(s)
2. Guiding the processes of procuring and overseeing services on development of risk financing and transfer mechanism products and tools identification, undertaking feasibility studies on all identified and shortlisted risk financing mechanisms and development of a basin flood insurance model for the assessment of premiums and payouts for flood events of different return periods

Task 4 will be guided and completed in close cooperation with GWP-Med.

45. Deliverables:

- D7. Technical input for the ToR(s)
- D8. Detailed review of the Feasibility study(ies)

¹⁰ Subject of future contract to third party

SCHEDULE OF ACTIVITIES AND MILESTONES

Table 1: Schedule of activities and timeline

| Task | Deliverables | Deadline After date of contract signing: |
|---|---|---|
| TASK 1: Inception report and flood risk financing | D1. Inception Report | 2 weeks |
| | D2. The Drin basin Flood risk financing overview report | 2 months |
| TASK 2: Appropriate flood financing and transfer mechanisms identification | D3. Draft report on the potential flood financing and transfer mechanisms (before consultation process) | 4 months |
| | D4. Final report on the proposed flood financing and transfer mechanisms (after consultation process) | 6 months |
| TASK 3: Develop basin flood risk financing and risk transfer strategy | D5. Draft basin flood risk financing and risk transfer strategy | 9 months |
| | D6. Final basin flood risk financing and risk transfer strategy | 10 months |
| TASK 4: Guiding further development of priority risk financing and transfer mechanisms, products, and tools | D7. Technical input for the ToR(s) | 10 months |
| | D8. Review of the Feasibility study(ies). | 18 months |

Contract Price

46. The maximum available budget for this contract is **36.800 USD**, including VAT.

This amount includes all other costs, income taxes and any other amount payable or cost that may be required for the completion of the work/service. Traveling costs for the mission (at least 1 per country) is also included.

Duration of the Contract

47. The overall duration of the contract will be maximum 18 months.

Schedule of Payment

48. All payments shall be upon reception and acceptance/verification of the deliverables, as laid out in the table below.

| Deliverable | Verification | Payment | Scheduled |
|---|-----------------------------|---------------------------------|---------------|
| D1. Inception report | Accepted by Project Manager | Tranche 1 (10%) | Jun 2022 |
| D2. The Drin basin Flood risk financing overview report D3. Draft report on the potential flood financing and transfer mechanisms (before consultation process) D4. Final report on the proposed flood financing and transfer mechanisms (after consultation process) | Accepted by Project Manager | Tranche 2 (40%) | November 2022 |
| D5. Draft basin flood risk financing and risk transfer strategy D6. Final basin flood risk financing and risk transfer strategy D7. Technical input for the ToR(s) | Accepted by Project Manager | Tranche 3 – Final Payment (45%) | March 2023 |
| D8. Comments on the Feasibility study(ies). | Accepted by Project Manager | Tranche 4 – Final Payment (5%) | End 2023 |

Selection Criteria

Pass/Fail Criteria

49. Successful participants must (in case of a group of experts / company the experience listed below applies for the lead expert) have:

- a) University degree (BSc or equivalent) in relevant field (i.e., Economy, Finance, Environmental economy, development economics or related quantitative social sciences). (in case of a more general first University degree discipline, Master or equivalent degree closely related to the scope of the work).
- b) Fluency/proficiency in both written and spoken English.

Qualification and Experience

The required and desired qualifications are presented below. **Failure to provide the minimum required qualifications is considered ground for disqualification.**

Qualifications additional to the minimum requested per category will receive additional score under the evaluation process as described in section "Awarding Criterion and Evaluation process". In case of a group of experts / company the experience listed below applies only for the lead expert.

Work experience (Required)

- Minimum fifteen (15) years of experience in economic or financial analyses and policy analyses in development contexts.
- Minimum seven (7) years of experience in risk financing in the EU countries and/or EU financed projects of comparable nature and degree of complexity
- Minimum three (3) relevant projects in environmental economics, development of risk financing strategies/ mechanisms/ instruments in EU countries in the last 10 years.

Work experience (Desired- Not Required)

- experience in development of the hazard risk financing and transfer mechanisms products and tools (Minimum engagement in one related project / position for one year)
- experience in working on water/flood related issues (Minimum engagement in one related project / position for one year)
- experience in working in any of the Drin countries ((Minimum engagement in one related project / position for one year)
- Knowledge of one of the Drin riparian languages (Montenegrin, Serbian, Albanian, North Macedonian, Croatian, Bosnian)

Annex I

1. Flood Insurance in the areas of Skadar/Shkoder Lake-Buna/Bojana River, and Struga in Ohrid Lake-Outputs developed under the GEF Drin project (2021):

2. Report on data availability and quality, characterization of the socio-economic status of the communities and their vulnerability to flood

3.1 Report on Flood vulnerability, flood damages and losses in the study areas

3.2 Feasibility studies into various types of ex-ante flood insurance including indemnity and index-based flood insurance schemes for Drin Basin and cost-benefit analysis of flood insurance for Drin Basin

4.1 Existing Flood-related Disaster Risk Management Legislative and Policy Frameworks and Financing Mechanisms

4.2 Existing and indicative insurance products for ex-ante risk management

4.3 Report of results of the willingness to pay surveys and recommendations for the flood product/insurance scheme as well as the willingness to pay of households, business sector, public sector, and agricultural households.

5. Report of private sector willingness to contribute to flood risk management activities and to contribute to/subsidise flood insurance

2. Report on Flood Risk Financing and Risk Transfer in North Macedonia by dr. Rom Aviv and dr. Darko Blazevski , developed under the UNDP's Improving Resilience to Floods in the Polog Region Project

3. Socio-economic thematic report – for the Drin Basin (2020)

In addition, it is expected that during implementation of the assignment the following deliverables or its parts (currently under development) from the AF FRM Project **might be** available to the consultant (depending on the time harmonization of activities achieved) to complement above provided information:

4 High resolution flood hazard inundation maps for the Drin Basin (under development)

Suitable for use in land use planning, development zoning, flood risk mitigation design, establishment of flood insurance criteria, raising public awareness, and emergency planning. These definitive basin hazard maps will be produced for a number of different return periods and for a range of climate change scenarios and will be the basis of climate risk information for use on climate risk management of the basin. The work will concern only areas at most potential flood risk (and not the whole Drin River Basin¹¹)

5. GIS-based basin-wide socio-economic risk model (under development)

¹¹ Complete areas are being identified by GIZ project or/and national flood related policies (where in existence) when applying the EU Floods Directive

GIS-based basin-wide socio-economic risk model which will integrate various spatial socio-economic data with the flood hazard maps, performs vulnerability assessment, and produce high-resolution vulnerability maps which will include damages losses, and loss of life estimates for floods of different return period. The model will enable damage and loss modelling, impact-based flood forecasting, cost-benefit analysis, and the appraisal of FRM interventions based on cost-benefit analysis, and development of financing mechanisms for long-term FRM. Using the GIS-based risk model, the project will complete a cost-benefit options analysis for the Drin basin, to identify options that maximise benefits.