**MINISTRY OF INTERNAL AFFAIRS**

**DEPARTMENT OF EMERGENCY SITUATIONS**

**GENERAL INSPECTORATE FOR EMERGENCY SITUATIONS**

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**C ă t r e,**

**Terms of Reference**

**Consulting Services for the development of the Unitary Methodology for the assessment of Loss & Damages caused by Disasters/Emergency Situations**

**to be financed under Component 2: Enhancing the Institutional Capacity for the Risk Reduction Investment Planning of the**

**STRENGTHENING DISASTER RISK MANAGEMENT PROJECT**

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# GENERAL BACKGROUND

## On the Terms of Reference

These Terms of Reference (hereinafter referred to as the „ToR”) describe the requirements and the services that must be provided to the General Inspectorate for the Emergency Situations (hereinafter referred to as the „Client”) by the Consultant offering its Services for the development of the unitary methodology for the assessment of loss & damages caused by disasters/emergency situations, (hereinafter referred to as the „Services”) under the Contract.

As the present ToR will be further included the Request for Proposals, and thereafter in the Contract, for the purposes of this assignment, any activity described in a specific chapter of the ToR and not explicitly specified in another section of the Request for Proposals/ Contract shall be considered as referred to in all sections of said documents.

## The Project on short; the implementation arrangements related to the assignment

The Government of Romania has received a loan from the International Bank for Reconstruction and Development (IBRD) to support the implementation of the **"Strengthening Disaster Risk Management Project"(**hereinafter referred to as the **"Project" or “DRM").**

The Loan Agreement for financing the **Strengthening Disaster Risk Management Project** has been signed by the Government of Romania and the International Bank for Reconstruction and Development in Bucharest, on August 1st, 2018, and has been ratified by the Law 307/2018.

**The objective of the Project** is to enhance the resilience of disaster and emergency response critical infrastructure and to strengthen the Borrower’s institutional capacities in disaster risk reduction and climate change adaptation.

The Project components are as follows:

1. Component 1: Improving Seismic Resilience of Disaster and Emergency Response Infrastructure
2. Component 2: Enhancing Institutional Capacity for Risk Reduction Investment Planning
3. Component 3: Project Management.

The **present assignment falls under above Component 2**: Enhancing Institutional Capacity for Risk Reduction Investment Planning, and the ToR are describing the objectives and expected outputs/deliverables of the Contract, i.e. the unitary methodology for the assessment of loss & damages caused by disasters/emergency situations (hereinafter referred to as the ”**loss & damage methodology**”)*,* in order to achieve the Project objectives under this component.

The GIES has established a **Project Implementation Unit (GIES-PIU)** that has the responsibility of coordinating the Project activities and providing the integration of the GIES experts’ activities in order to achieve the Project objectives. The GIES-PIU is also undertaking specific activities linked to Project implementation, including the procurement process for the subject Services.

The GIES- Prevention Inspection Department, through its subordinated **Compartment of Disaster Risk Control** is accountable for the achievement of the risk assessment activities related to Project Component 2, providing technical support to the Consultants.

## Current status of the disaster economic impact assessment activities at national level

According to the relevant legislation, the assessment of the economic impact caused by a disaster is the responsibility of all national authorities managing disaster risks, being an important tool for the strategic planning of material and financial resources. However, since there are no dedicated instruments, and the necessary information for quantifying the economic impact is scattered or difficult to access, having no inter-institutional protocols for collaboration on this topic, most of the times these assessments are limited to the elements of physical impact ignoring the economic impact.

Such limitations occur also in the activity of the loss assessment committees, a group of relevant experts designated by the prefect to perform on-field assessment of the material, human and environmental losses caused by an emergency situation, and to quantify the economic impact. These committees are undertaking the assessment without following a specific methodology, thus leading to unrealistic results and some committee members are reluctant to fill in the assessment report without proper guidelines. According to the relevant regulations, these reports are inputs for the synthetized reports and/or the stipulated decisions of the local committees for the management of emergency situations concerning the fund allocation for the rehabilitation of the affected areas and their return to normal state.

Moreover, the diversity of the methods used by different entities for the assessment of economic loss, and the difficult access to the necessary relevant information, having in mind that these reports must be completed and signed in max. 30 days from the event, determine different and non-homogenous results, making their further integration in the annual reports and statistics problematic and leading to high levels of uncertainty.

Also, the authorities dealing with risk scenarios assessment are experiencing difficulties in collecting the data necessary for an overview on the short or long-term economic impact, especially for events with small or medium impact but with a high probability.

The lack of necessary tools for proper damage assessments is stressing-out also the research institutes and universities which are implementing projects on disaster risk assessment. The methods they use and the input data can lead to significant differences between results obtained from two distinct institutes/universities and the update of the economic impact for a risk scenario requires additional effort, both human and financial.

## The Loss and Damage Methodology to further improve the economic impact assessment methodology developed under the Ro-Risk-SIPOCA 30 project

The **national disaster risk assessment** is a process that enables the disaster risk comparison, using well-defined criteria, and the prioritization of investments dedicated to reducing risk with major impact on the population and the economic assets. The national disaster risk assessment is also included in Romania’s accountabilities as an EU Member State and encompasses the continuous/cyclical implementation of specific activities in order to update the disaster risk matrix and to periodically report their outputs to the European Commission.

The first cycle of the national disaster risk assessment has been undertaken during the *Ro-Risk project – The national risk assessment (SIPOCA 30)*-2016-2018 - financed through the Operational Program for Enhancing the Administrative Capacity. In this project, **the baseline of the assessment process has been established** - the national risk assessment methodology, the IT system that supports the RO-RISK platform, and the assessment of about 50 risk scenarios. Moreover, several enhancement opportunities have been identified, in order to provide a higher result accuracy and an adequate approach of multi-hazard and multi-risk scenarios.

The present ToR are addressing **the development of the loss & damage methodology, based upon** **the economic impact assessment methodology developed under the Ro-Risk-SIPOCA 30 project, by improving and updating it** in order to be used not only in risk scenario assessments (as future projections) but also **in post-disaster damage assessments**, as the main source of historical data that can be used for the identification of major impact risk scenarios.

## IT system to be developed based on the loss and damage methodology

The loss & damage methodology will further support the development of an **IT system** consisting of:

* a **customized software**, that will allow the automatic calculation of the economic impact values, using the methodology formulas, and
* a **database** containing the data related to physical impact (to be uploaded by the users) and the statistic and financial-economic data needed to estimate the economic impact values. The database shall be interconnected with other existent national-level databases, containing statistic and financial-economic data.

In parallel with the DRM Project, GIES is implementing the project *SIPOCA 866 – „Reinforcing the national framework for disaster risk reduction and firefighting system”.* One of SIPOCA 866objectives is the development of a database containing information on the physical and direct/indirect economic impact caused by the disasters occurred since 2005. This database will be built based on the DesInventar Sendai database, developed by UN DRR, and shall import the disaster impact data uploaded and processed by the IT system to be developed following the present assignment.

## Stakeholders involved; TWG

Having in mind, on one hand, the fact that a disaster event is affecting a diversity of elements, starting with people’s life and welfare and ending with the sectorial economic activities, and, on the other hand, the fact that the assessment of the economic impact requires a large range of expertise, such as financial-accounting, construction works, insurances, etc., GIES has identified a list of Romanian stakeholders the Consultant is expected to work with in order to identify the necessary statistic and financial-economic data to be processed, like National Institute of Statistics, Agency for the Promotion of Agricultural Investments, National Agency for Cadastre and Land Registration, National Agency for Fiscal Administration, Insurance Pool against Natural Disasters, The National Association of Authorized Romanian Valuers, National Health Insurance House, National Union of Romanian Notaries Public, National Commission for Strategies and Prognosis, the  Authority for Romania's Digitization.

Moreover, since the loss & damage methodology must be consistent with the requirements of the national authorities responsible with disaster risk management, according to GD 557/2016, and since this methodology will be used for the future assessments of economic impact caused by specific risks, a **Technical Working Group** (hereinafter called “**TWG**”) has been established, comprised of representatives from the mentioned authorities. The TWG shall provide guidance and technical advice on issues related to the area of their expertise, as well as advice on issues to be addressed in order to obtain optimal results through their feedback on the services performed and deliverables submitted by the Consultant.

# LEGAL FRAMEWORK

The services provided by the Consultant under the Contract shall be consistent with:

* The Governmental Ordinance no. 21/2004 for the approval of the National System for the Management of the Emergency Situations;
* The Governmental Decision no. 557/2008 referring to the Risk Management;
* Project Appraisal Document PAD2759, issued by the International Bank for Reconstruction and Development, on a proposed loan in the amount of Eur 50 million for a Strengthening Disaster Risk Management Project;

# THE MAIN SCOPE OF THE SERVICES

The main scope of the Services is to enhance the institutional capacity for risk reduction investment planning.

## Specific Objectives of the Services

The scope of the Services will be accomplished through the collection and use within the national risk assessment process and the RO-RISK platform of more robust data concerning the economic impact of disasters.

## The detailed description of the Services

The Consultant must provide the following outputs:

1. The loss & damage methodology that will ensure the consistency and the comparability of the output data;
2. The studies identifying the statistic and fiscal-economic data needed to apply the methods and formulas described in the loss & damage methodology in order to quantify the economic impact for each affected element, and the most appropriate methods to obtain them;
3. The technical specifications needed for the development of the IT system, that shall be subject to a subsequent procurement procedure, and that shall be interconnected with other existent data-bases, managed by different Romanian authorities, for collecting the statistical and financial-economic data to be used in further developing the calculation algorithm;
4. Providing technical assistance for the developer of the IT system, in order to clarify the inconsistencies and bottlenecks that may occur while developing of the calculation algorithm based on the loss & damage methodology and the above-mentioned technical specifications.

# DESCRIPTION OF THE ASSIGNMENT

In the submitted Technical Proposal for the subject assignment, the Consultant shall outline his extensive understanding, in terms of the technical and social impact aspects, of the Services relevance degree in the Project, in order to fulfil the objectives of these ToR.

The Consultant’s Proposal must be compliant with the requirements described under the present Section 4. However, upon the Consultant’s consideration on additional benefits that might be provided to this assignment, the Consultant’s Proposal may include alternative or additional activities to be undertaken, in order to achieve the defined objectives of these ToR, as long as they explain the reasoning behind the proposed alternative/ additional activities.

The development of the loss & data methodology shall take into account the following methods/approaches:

* The MEIER method: the methodology for the assessment of economic impacts caused by potential disasters/risks, developed by the Institute for Economic Forecasting in 2016, within the Ro-Risk Project - National Risk Assessment as part of the national methodology for risk assessment (this document can be found at <https://www.igsu.ro/FinantareExterna/ProgrameEuropene2014>, under section ”Ro-Risk Project- National Risk Assessment”);
* The DaLA Methodology – Damage and Loss Assessment, developed by UN ECLAC during 1970s and globally acknowledged and used by all UN agencies and WB

<https://www.cepal.org/en/publications/44157-disaster-assessment-methodology-exercise-guide>

* The FAO's Methodology for Damage and Loss Assessment in Agriculture, developed in 2020 by the Food and Agriculture Organisation of the United Nations;

<http://www.fao.org/3/ca6990en/CA6990EN.pdf>

* The Damage/Loss Assessment Methodology developed by World Bank in 2020, as an outcome of the RO-FLOODS Project – Strengthening the central institutional capacity for the implementation of 2nd and 3rd phases of the Second Cycle of the Floods Directive (the development of this methodology is on-going, its completion is due on December 2020; the final methodology shall be provided to the Consultant by GIES);
* Methods used for the fiscal-economic impact assessment for affected elements in specific sector: insurance, financial-accounting sector, human health, construction works, intervention costs, state-funded compensations;

The services under the present assignment will be grouped in phases which will be completed the respective deliverables as follows:

## The Framework of the Loss & Damage Methodology

At the beginning of this phase the Consultant will update the Work Plan included in its Technical Proposal, and a kick-off meeting will be held with the Client’s representatives and the members of the Technical Working Group. During this meeting, as well as during future meetings, the Consultant is encouraged to inform on identified risks that, if happening, may lead to delays in implementation and to also present their recommendations regarding actions to be taken to prevent the respective delays.

During this phase, the **identification of elements’ categories prone to disasters** will be made by taking into consideration the above-mentioned methodologies and approaches, along with the forms used for reporting to the EU or international entities (Sendai Framework Monitor, DesInventar Sendai, INFORM EU, the country report on risks assessment requested by the EU Civil Protection Mechanism) and the national specific regulations/legislation.

The Consultant will further **identify all components under the categories of elements** listed above that may be converted into economic losses.

For example, the element „affected forest area” is comprised of the following components: the timber loss, biodiversity loss, the discontinuation of the logging industry, the decrease of the local resources of raw materials for the wood processing activities, etc., while the element „injured people” means the increasing of the healthcare costs, the costs of implementing compensatory measures related to the temporary/permanent incapacity of work, incurred costs due to the reduction of staff, etc.

In this phase, the Consultant will also **identify all the calculation methods for components** that could be used in the loss & damage methodology and the **detailed definition of the** **used terms** in the respective formulas. The Consultant will also indicate the method/formula for obtaining/quantifying the used terms (**calculation methods for used terms**); the formulas shall be detailed up to the most basic terms, which can be easily identified and/or assessed. In the final phase of methodology development, there will be selected the final calculation methods for components to be included in the loss & damage methodology also by considering the data available to be used as identified in the next two phases.

During the development of the loss & damage methodology the use of complex economic analyses must be avoided; if such analyses are mandatory, then the methods having the lower extent of reliability but the easier degree of applicability will be chosen. Thus, for the direct economic impact caused by the discontinuation of relevant activities and for the indirect economic impact, a more generic calculation method will be chosen, like the one presented by DaLA Methodology, which allows the quantification of the economic impact using of macro-economic indicators or other specific indicators.

In order to establish the calculation methods, several considerations shall be taken into account as follows:

* In order to be consistent with its outcome (i.e. getting the most realistic results on the economic impact), **the loss & damage methodology will provide, for each disaster-prone element, several assessment methods** (defined from the least accurate to the most accurate), from which the software will select the optimal method, based upon the available data;
* If two different assessment methods have the same degree of accuracy, the Consultant will choose the method already used in that particular area of expertise;
* In order to assess the direct impact caused by the discontinuation of the activities and the indirect impact, it is mainly recommended the use of DaLA methodology, that shall be adapted wherever it is possible to the MEIER methods, so that the results already obtained, during the national risk assessments for these two types of impacts, to be compatible with the results further obtained for other risk scenarios;
* If during the consultations with other national authorities with responsibilities in disaster risk management a new assessment method is identified, (one not taken into account initially), then the pros and cons shall be analysed in order to determine whether the new method or the already established method should be included in the methodology.

In this phase, the following issues should be addressed:

* The types of asset values will take into account International Valuation Standards for disaster prone elements and the relevant methods/sources;
* The methods for the assessment of the reconstruction cost and the replacement cost should take into account the principle of Build Back Better;
* The assessment methods for the economic value of human life and health care cost;
* The direct cost of interrupted work/business for both employees and companies;
* The methods and data sources for the assessment of indirect economic impact should take into account budgets, current accounts etc.;

For each component under the categories of elements, the Consultant will **identify and provide a detailed definition of the characteristics** that must be known in order to introduce them in the calculations/formulas. The definition of the characteristics is important to be clear, expressed in simple words so as to be easy to understand by the field operators who will later collect the data (e.g. one of the methods used for the quantification of the economic value of a house is requiring the following physical characteristics: construction date, the height regime, the gross floor area, the construction raw materials, the building site).

At the end of this phase the Consultant will deliver the **Technical Report** **1** consisting of:

1. **Updated Work Plan**;
2. **The Framework of the Loss & Damage Methodology** consisting ofa table identifying the following information structured on columns:
   * category of elements,
   * components under each element,
   * calculation methods/formulas for components,
   * definition of used terms,
   * all calculation methods/formulas for used terms,
   * element characteristics needed to be known in order to apply the calculation method/formula.
3. A short **Progress Report** on the assignment implementation status, including copies of the Minutes of all meetings held with the Client during the period;

## Identification of the required data and their sources for 2005-2020

At this phase the Consultant will identify all types of data needed for the application of the calculation methods/formulas and their sources (e.g. the national central authorities - National Institute of Statistics, Agency for the Promotion of Agricultural Investments, National Agency for Cadastre and Land Registration, National Agency for Fiscal Administration, international organisms) for 2005 - 2020 timeframe. The Consultant will prepare a list of all needed data, including incomplete or missing data. The Client, with the support of the TWG, will identify from this list the data needing to be studied further on under a separate study described below under section 4.4.

In case of the data which are available, but do not cover the entire time frame, the Consultant will make well-founded proposals using extrapolation/approximation of the available data. In case the extrapolation of available data is not possible or the obtained results have a very low degree of reliability, the Consultant will treat them in the same way as missing data, which is detailed in the below section 4.4.

The approach on the missing data is further detailed under section 4.4 of the present ToR.

Part of the data identified under the present and next two phases of the assignment (i.e. sections 4.2 - 4.4) are needed in order to complete the Sendai Framework Monitor annual reports with information on to the disaster economic impact for the 2005- 2014 timeframe (which is considered as the baseline data) and for the last decade, in order to get a comprehensive review on the efficiency of the national mitigation measures addressing the disaster risk impact.

This phase will be completed with the delivery of the **Technical Report 2** consisting of:

1. **Study on the types of data required by the Loss and Damage Methodology** in the calculation method/formula, and their sources for the 2005 - 2020 timeframe, providing also information on missing data.
2. A short **Progress Report** on the assignment implementation status, including copies of the Minutes of all meetings held with the Client during the period;

## Assessment of terms subject to the evaluator’s bias – study

Sometimes the calculation methods will use terms which are subjected to the evaluator’s bias e.g. the average building damage percentage, or the trauma classification criteria. Therefore, there is a need to identify those terms and to establish an algorithm for their assessment.

As part of this assignment the Consultant will prepare a separate study on identifying the terms subject to evaluator’s bias, and define their assessment algorithm.

This phase will be completed with the delivery of the **Technical Report 3** consisting of:

1. **Study** **on the terms that may be subject to the evaluator’s bias**;
2. A short **Progress Report** on the assignment implementation status, including copies of the Minutes of all meetings held with the Client during the period;

## Assessment of missing data – study for the period 2005-2020

If some of the data cannot be found in the national databases or in archives, or the data is incomplete and unreliable to extrapolate from the existing data, then the consultant will analyze the values used by other EU or non-EU countries (USA, Australia, New Zealand, Canada have priority), as well as the by international organizations such as Red Cross, World Bank, OECD, UN agencies.

In the case of missing data for the 2005 - 2020 timeframe, the Consultant will prepare a study which will identify these data/terms from the above-mentioned sources, propose possible evaluation methods and calculate the resulted values. The Consultant will provide arguments for their decision regarding the selection of the data and evaluation methods.

This phase will be completed with the delivery of the **Technical Report 4** consisting of:

1. **Study on missing data,** identification of possible evaluation methods/sources and provide the values resulted from applying the identified evaluation methods for the 2005 - 2020 timeframe;
2. A short **Progress Report** on the assignment implementation status, including copies of the Minutes of all meetings held with the Client during the period;

## The Loss and Damage Methodology; procedure for periodic data collection

This is the phase where the Consultant will integrate all the findings of previous phases into the main product of this assignment which is the **Loss and Damage Methodology**.

At this stage a decision will be made on the calculation methods to be used by the methodology depending on available existing input data/terms or new terms to be collected further on.

Throughout this period, there will be several meetings with TWG members with responsibilities in specific fields of expertise for agreeing on the final data and methods to be included in the Loss and Damage Methodology. The final lists with methods and data to be used by the methodology will also include a column summarizing the reasons for which the respective methods and data were selected.

The Consultant will prepare detailed guidelines for applying the Loss and Damage Methodology describing the working hypotheses and presenting step-by-step the assessment process, including data collection form(s) to be used by the field operators. At this stage, the Consultant will also prepare **the procedure for the periodic communication and reporting of data** mentioned under above 4.2 - 4.4 sections, and of a logical schema linking all the entities owning the data, which will be available for the evaluators assigned to conduct the on-field assessment of the economic impact of disasters.

This procedure will cover the process of collecting data from the national entities, but also from regional/international organisms, such as the World Bank, EU, United Nations, Red Cross, etc. The consultant will propose a mechanism for the periodic update of the data that are not already available and are subject to analyses mentioned under above 4.4 section

This phase will be completed with the delivery of the **Technical Report 5** consisting of:

1. The Loss & Damage Methodology will include the following:
   * category of elements,
   * components under each element,
   * selected calculation methods/formulas for components,
   * definition of used terms,
   * selected calculation methods for used terms,
   * element characteristics needed to be known in order to apply the calculation method/formula;
   * identified data and their sources;
   * assessment algorithms for the data subject to evaluator’s bias;
   * procedure for the periodic communication and reporting of data
   * Guidelines for applying the Loss and Damage Methodology, including a data collection form to be used by the field operators.
2. A short **Progress Report** on the assignment implementation status, including copies of the Minutes of all meetings held with the Client during the period.

## Preparation of the Technical Requirements for the procurement of the IT system development services

For each of these steps, the Consultant will take into consideration the fact that the loss & damage methodology will be the basis for further development of a customized software that will automatically calculate the economic values based on the uploaded data. This customized software will draw input data from available external databases, calculate the economic values, and feed the results into the following GIES databases: DesInventar, RO-RISK and SMISU.

Part of the Consultant’s task under the present assignment is to prepare the Technical Requirements (business functions, performance requirements, technical specifications etc.) for the customized software application so that the contractor who will be responsible for the IT system development to understand the linkages between databases, input data, formulas and expected output. In this respect, the Consultant will develop a logical schema for the calculation algorithm of the IT system, and will indicate the external databases and GIES databases to be interconnected with the IT system, the data format to be imported/exported, and also other relevant specifications supporting the IT system provider to deliver the optimal solution in order to meet the requirements of the national authorities managing disaster risk.

The standard form of the Technical Requirements will be provided by the GIES – PIU.

This phase will be completed with the delivery of the **Technical Report 6** consisting of the **Technical Requirements** for the procurement of the IT system development services.

## Technical Assistance during the IT system design and development services

As part of the present assignment, the Consultant will have to provide technical assistance to the Contractor who will develop the IT system throughout the design and development phases by providing further explanations to the Technical Requirements, if needed, or discuss possible alternatives to the initial proposed algorithms so that the design and development of the IT system to be smoothly and successfully implemented.

GIES representatives will facilitate and coordinate the communication with the IT system contractor. Any meetings leading to decision making regarding changes of the initial Technical Requirements will be documented by Minutes of the Meetings.

At the end of this phase, the Consultant will submit a **Technical Assistance Report** detailing on the work done under the phase and including any relevant documents resulted.

# CONTRACT MANAGEMENT, EXPECTED OUTPUTS/ DELIVERABLES and TIME SCHEDULE

## Contract Management

A **Contract Manager** will be appointed by GIES to monitor, supervise and co-ordinate the overall progress and implementation of the Contract. The Contract Manager will be the main contact point for all official communications between the Consultant and the GIES concerning the implementation and management of this Contract.

In order to support the implementation of this assignment, a **TWG** has been established comprising representative members of Romanian authorities with responsibilities on disaster risk management and of authorities administrating certain types of disaster-prone elements. Members of TWG will also support the Consultant in obtaining the needed information from their respective state institutions. If necessary, representatives from relevant research institutes or other agencies could be added to this group.

The TWG will meet periodically and as needed with the Client and the Consultant, to jointly discuss the progress on the implementation of the Services and to provide feedback on the documents developed by the Consultant. TWG can propose the modification of the Work Plan according to the current situation and the requirements of the national authorities.

The Consultant will meet monthly, face-to-face or online, with the **GIES experts** or as often as needed to discuss implemented activities, results and the way forward.

All meetings will be notified by the initiating party at least 3 days before and will be held either face-to-face or online, using the online meeting and collaboration software. The Consultant will prepare the draft Minutes of the meeting, which will be sent within 2 days by email, requesting a read receipt, to all participants for their review. Participants sending comments on the draft Minutes to the Consultant will copy all other participants and will send their comments within 2 days from the receipt of the draft Minutes. The Consultant will have the participants agreeing on the final version of the Minutes incorporating all comments.

Any updated documents, part of the Contract, like the Work Plan, will be enforceable only after their acceptance by the GEIS.

For each delivery, the General Inspector of GIES will nominate the Acceptance Committees in charge with accepting the Consultant’s deliverables and reports submitted in accordance with this Contract by issuing a Qualitative and Quantitative Delivery Protocol.

**Delivery and Acceptance procedure**

The draft deliverables will be provided to GIES by e-mail 14 days prior to deadline, so that GIES can submit them for analysis to the TWG. The TWG will provide feedback within max. 10 days from submission and GIES will send it to the Consultant's e-mail. The Consultant will analyze the TWG comments, will modify/complete the draft accordingly and will send the final version to GIES for acceptance within the delivery deadline. If the final version was not accepted by the TWG, the Consultant could make additional modification to the document, but the deadline can't be postponed for more than 1 week.

After the TGW approves the Consultant’s deliverables, the Consultant will submit to GIES the final document in paper format. The GIES Acceptance Committee in charge with accepting the respective Consultant’s deliverables and reports will issue a Qualitative and Quantitative Delivery Protocol.

Number of printed and bound copies of each report or materials submitted by the Consultant will be agreed on case-by-case basis by the Consultant and the Client. All materials and reports produced by the Consultant under the Contract will also be submitted to the Client in electronic format.

All the reports and materials issued under the present assignment will be the GIES property and they cannot be disseminated by the Consultant without prior request of Client’s permission.

**Language**

During the assignment implementation, all oral and written communication with the Client and stakeholders will be done in Romanian language. In case of a foreign Consultant, it falls under Consultant’s obligations to ensure proper translation services.

We also mention that some of the methodologies mentioned under above *Section 4. Description of the Assignment* are written in English language and it also falls under the Consultant’s responsibility to ensure proper translation for the key-experts not familiar with English language.

All deliverables under the present assignment must be submitted in Romanian language.

## Expected outputs/Project deliverables and time schedule

The total duration of the assignment is 24 months from the contract signing date, estimated to start in June 2021. This total duration is split in two main periods:

1. During the first 9 months of the assignment the Consultant will develop the Loss & Damage Methodology, including preparation of the Technical Requirements for the procurement of the IT system development services;
2. Starting with month 15 (estimated in May 2022 at the latest) up to month 24, the Consultant will provide the Technical Assistance during the design and development of the IT system automating the loss & damage methodology.

The Consultant shall propose in its Technical Proposal a detailed Work Plan, which will be updated during the first phase of the implementation period.

| **Assignment phases** | **Deliverables** | **Estimated work input (staff-months)\*** | **Delivery deadline (months after Contract’s Effective Date)** |
| --- | --- | --- | --- |
| 1. The Framework of Loss & Damage Methodology | **Technical Report 1** | 3.75 | 1 |
| 1. Data required by the loss and damage methodology | **Technical Report 2** | 7.50 | 3 |
| 1. Assessment of terms subject to the evaluator’s bias – case study for the period 2005-2020 | **Technical Report 3** | 3.75 | 4 |
| 1. Assessment of missing data – study for the period 2005-2020 | **Technical Report 4** | 8.25 | 7 |
| 1. The Loss & Damage Methodology; procedure for the periodic communication and reporting of data | **Technical Report 5** | 6.25 | 8 |
| 1. Preparation of the Technical Requirements for the procurement of the IT system development services | **Technical Requirements** for the procurement of the IT system development services | 4.25 | 9 |
| 1. Technical Assistance during the design and development of the IT system | Technical Assistance Report | 4.25 | 24 |
| **TOTAL** | | **38** |  |

*\* The number of staff months indicated in this column is just indicative. The Consultant may propose a different number of staff months according to its own estimations.*

# CONSULTANT’s QUALIFICATIONS

**General qualifications**

The Consultant (or any of the partners in case of joint-venture associations) shall provide documented information on: core business and years in business, presentation of provided services. The Consultant (or any of the partners in case of joint-venture associations) must have at least *5 years of experience in consulting service delivery in the public or private sector*. Each additional year of experience is considered a plus. The Consultant (or any of the partners in case of joint-venture associations) shall include at least 1 letter of recommendation from the previous clients.

**Specific experience**

The Consultant shall provide documented and detailed information, in the form of written evidence, on at least *2 assignments related to financial and economic analyses of similar or higher complexity* that the Consultant (or any of the partners in case of joint-venture associations) has implemented during the last 5 calendar years. Consultants shall indicate the implemented similar assignments during the last 5 years with a brief description of the performed actions, deliverables and results. The respective Clients’ recommendations shall be mandatorily attached (if different from the ones requested in the General qualification above).Each accomplished and proven similar assignment, in addition to the requested 2 documented similar assignments, is considered a plus.

**Expertise of the Consultant’s team**

The Consultant shall make available a team of experts with the experience and qualifications needed for successfully completing the services, including at least the following key-experts: team leader, economic and social statistics expert, financial and economic analysis expert, macroeconomic modelling expert, software analyst.

The Consultant shall provide relevant information regarding the availability of appropriate skills among the proposed staff, as requested by the ToR. The Consultant’s proposal in terms of the experts’ relevant experience and qualifications shall be in the form of a list of the proposed experts (employed experts and/or contributors/independent experts), mentioning for each one: the proposed position, summary of qualifications and experience, the proposed input to the completion of the services.

More details on the expected expertise of the Consultant’s team are listed below.

1. **Consultant’s key-experts:**

The Consultant’s key-experts have a crucial role in implementing the contract. All experts must be independent and free from conflicts of interest in the responsibilities they take on.

The Consultant shall submit CVs complying with the below requirements for the following key-experts:

* Key Expert 1: Team leader;
* Key Expert 2: Economic and social statistics expert;
* Key Expert 3: Financial and economic analysis expert;
* Key Expert 4: Macroeconomic modelling expert;
* Key Expert 5: Software analyst

The submitted CVs will be signed by the respective experts certifying the content of the CV and their availability for the assignment.

**Key Expert 1: Team Leader**

The Team Leader is responsible for the day-to-day liaison with the Client; s/he must ensure the internal coordination and guidance of all experts of the project team and coordination of the project team with external counterparts.

The Team Leader will ensure availability of suitable experts in accordance with the Project Work Plan and will oversee that all reporting obligations are fulfilled in a timely manner to a high-quality standard.

Qualifications and skills:

* Bachelor degree or equivalent.
* 10 years of professional experience in Economy or Economy-related fields;
* Experience as a project manager for at least two projects on economic impact assessment, either disaster economic impact assessment on certain economic sector or economic/ social impact generated by national economic programmes and policies.
* Experience as project manager of at least one disaster economic impact assessment undertaken in an EU country;
* Good knowledge of local administrative system, government organization, etc. would be considered an asset
* Strong written and verbal communication skills in either English or Romanian. Good knowledge of both languages would be an advantage.

**Key Expert 2: Economic and social statistics expert**

The Economic and social statistics expert is responsible for all tasks related to the identification, collection and processing of statistical and financial/economic data.

Qualification and skills:

* Bachelor degree or higher in Engineering, Mathematics - Cybernetics, Statistics or Informatics specializations;
* At least 8 years of general professional experience in the field of the higher studies’ expertise;
* At least 5 years of professional experience in working with large amounts of data for statistic and economic analyses and synthesis, social, economic or financial statistics or empirical/applied studies and research in the field of macroeconomy;
* Certified knowledge on specialized software for statistic and econometric analysis (EViews, Gretl, Matlab, R, Stata, SPSS) is an asset.
* Good knowledge of local administrative system, government organization, etc. would be considered an asset
* Strong written and verbal communication skills in either English or Romanian. Good knowledge of both languages would be an advantage.

**Key Expert 3: Financial and economic analysis expert**

The Financial and economic analysis expert is responsible for all tasks concerning the evaluation methods for the direct and indirect impact caused by disasters and the identification of data necessary in applying these methods.

Qualification and skills:

* Bachelor degree or higher in Economy or Economy-related fields;
* At least 5 years professional experience in social-economic analyses, social-economic analyses and diagnoses at microeconomic level, financial models and econometric applications or financial studies and research;
* Certified knowledge in dedicated software for quantitative economic analysis and/or competency in operating with specialized statistics software and current applications (Matlab, EViews, SPSS, R, VBA) is an asset;
* Experience in disaster risk assessment or disaster impact assessment is an asset.
* Good knowledge of local administrative system, government organization, etc. would be considered an asset;
* Strong written and verbal communication skills in either English or Romanian. Good knowledge of both languages would be an advantage.

**Key Expert 4: Macroeconomic modelling expert**

The Macroeconomic modelling expert is responsible forall the tasks related to the economic and mathematical modelling for the disaster impact assessment and to financial risk analyses.

Qualification and skills:

* Bachelor degree or higher in Economics – Cybernetics, Statistics, Informatics specialization or similar;
* At least 8 years of professional experience in applied Macroeconomy, Econometrics or Statistics;
* At least 5 years in macroeconomic modelling, mathematical modelling, prognosis or calibration of imperfect mathematical models.
* Certified knowledge in specialized software (Mathcad, EViews) is an asset;
* Experience in disaster risk assessment or disaster risk scenarios modelling is an asset.
* Good knowledge of local administrative system, government organization, etc. would be considered an asset;
* Strong written and verbal communication skills in either English or Romanian. Good knowledge of both languages would be an advantage.

**Key Expert 5: Software analyst**

The Software analyst is responsible for the establishment of the functional and non-functional requirements of the IT system supporting the loss & damage methodology and for providing IT consultancy to the other key experts and to the IT contractor.

Qualification and skills:

* Bachelor degree or higher in IT, Informatics or Computer Science;
* At least 5 years professional experience in IT field;
* Experience in at least 2 projects on the development of a databased system;
* Good knowledge of local administrative system, government organization, etc. would be considered an asset;
* Strong written and verbal communication skills in either English or Romanian. Good knowledge of both languages would be an advantage.

1. **Other Consultant’s experts:**

**Non-key experts& administrative staff**

The Consultant can select and hire additional experts if needed, in order to comply with the requested services within the established deadlines. The non-key experts’ CVs shall not be submitted.

The Consultant can select and hire administrative staff, as needed e.g. English - Romanian translator.

# Facilities provided by the Client

The Client will be the interface between the Consultant and the TWG, having responsibilities in document exchange/transfer between them and inviting the TWG representatives to the meetings organized by the Consultant.

The Client will also provide any necessary support concerning information and data needed in the process which are owned by the national authorities and other relevant entities.

The Consultant will mainly work from their location. The Client will provide suitable space for the working meetings (Client-Consultant) during the implementation period.