

GOVERNMENT OF UTTARAKHAND
Uttarakhand State Disaster Management Authority
Uttarakhand Secretariat
4 Subash Road, Dehradun – 248 001

Terms of Reference

Engagement of a consultancy firm for the comprehensive study of insurance options related to disaster risk transfer and undertake baseline survey and development of a viable insurance related proposal for the state of Uttarakhand together with financing options for the implementation of the same.

1. Project Background and Objectives

The Uttarakhand Himalayas represent fragile ecosystems and vulnerable landscape. Various hazards including earthquake, cloudburst-triggered flashfloods, debris-flows, landslides, and mass movements are common natural catastrophes occurring in the region. These cause massive loss of life and property. Moreover intensity and frequency of these incidences have increased manifold in the recent past. These disasters account for more than 70% of all economic losses and more than half of the casualties.

Formed on November 9, 2000 Uttarakhand is 27th state of India. It predominantly comprises hilly terrain and shares border with the China in the north and Nepal in the east. On its north-west lies the state of Himachal Pradesh, while on the south it is bound by the state of Uttar Pradesh. Snow clad Himalayan ranges and glaciers comprise major portion of the northern part of the state while the lower reaches are densely forested (covering about 60% of the state) with rich natural resources and wildlife habitat. Two of India's major rivers, the Ganga and the Yamuna, originate from this region.

Uttarakhand comprises of 13 districts that are grouped into two commissionaires: Kumaon and Garhwal, and has a total geographical area of 53,484 sq. km. and total population of 1,00,86,292 (Census of India, 2011). The economy of the state primarily depends on agriculture and tourism. The state is home to important Hindu pilgrimage centres referred to as the “*Char-Dham*”, i.e. the Gangotri, Yamunotri, Kedarnath and

Badrinath. The state also has shrines revered by Sikhs (Hemkund Sahib, Reetha Sahib) and Muslims (PiranKaliyar).

Uttarakhand by virtue of its geographical setting is vulnerable to minor ecological changes. Hence any activity disapproved by mountain ecosystem triggers a disaster. We cannot stop disaster to happen but can certainly take some steps to reduce its effects. Disasters are synonymous to damage of property, life and psyche of the people. If disasters cannot be averted, then reduction of losses of any type, caused by disaster becomes the focal point of the policy for disaster management. So far, in the recent years (1990 onwards) Uttarakhand has experienced two major earthquakes (magnitude >6) – Uttarkashi(1991) and Chamoli (1999) and a series of landslides/cloud burst events - Malpa(1998), Okhimath (1998), Fata (2001), Gona (2001), Khet Gaon (2002), Budhakedar(2002), Bhatwari(2002), Uttarkashi (2003), Amparav(2004), Lambagar(2004), Govindghat(2005), Agastyamuni(2005) Ramolsari(2005) and tragedy of Kedarnath (2013) and many more.

The monsoon in June 2013 arrived almost two weeks earlier than expected in Uttarakhand. From June 15 to 17, 2013, cloud bursts and heavy (64.5 - 124.4 mm) to very heavy (124.5 – 244.4 mm) rainfall hit several parts of the higher reaches of the Himalayas. This unprecedented rainfall resulted in a sudden increase in water levels, giving rise to flash floods in the Mandakini, Alakananda, Bhagirathi, Pinder, Kali and other river basins, causing extensive landslides at various locations. Continuous rains caused levels of Chorabarilake located close to Kedarnath to rise and the lake's weak moraine barrier to give way. Huge volume of water along with large boulders came down the channel to the east, devastating the townships of Kedarnath, Rambara, Gaurikund and others in its wake. According to official sources, over 900,000 were affected by this event with Bageshwar, Chamoli, Pithoragarh, Rudraprayag and Uttarkashi districts being most affected. Since the disaster coincided with the peak tourist and pilgrimage season, it significantly increased the number of casualties, missing, and affected population. A total of 580 human lives were lost, over 4,000 people went missing, 4,200 villages were affected, 9,200 cattle/livestock were lost, ~3,320 houses were fully damaged, ~995 public buildings were damaged, close to 9,000 km of road stretch was affected while 85 motor bridges and 140 bridle bridges were damaged. This event also left over 70,000 tourists and 100,000 local inhabitants stranded in the upper reaches of the State.

Landslides and toe erosion by the sediment laden rivers damaged roads/highways at many locations and washed away multiple bridges (steel girder, beam, and suspension/cable bridges). Traffic was disrupted along all national highways and link roads in the region, along with the disruption of telecommunication lines; all adding to the impact of the disaster. Many hotels, rest houses and shops around the temple in Kedarnath were completely destroyed.

To date, there has been limited uptake in financial instruments to manage the contingent liabilities from natural disasters due to the fact that these risks have not been quantified. As a result, governments face challenges in managing the contingent liability associated with disasters and often reallocate or divert funds from development programs to support the disaster relief and recovery efforts. When a disaster strikes, it is expected that the government would act as insurer of last resort, increasing the fiscal burden of natural disasters on the government budget.

When sovereign DRFI is limited or absent, post-disaster public expenditure response is limited to increased borrowing or increased taxation, or most likely, budget reallocation. Other, budgeted lines of public spending are reduced to release resources for the unbudgeted post-disaster categories that need to be increased. Understanding the contingent liabilities from natural disasters plays a key role in understanding the potential impact of sovereign DRFI strategies which can allow governments to fund the costs of disasters using alternative financing methods.

2. Disaster Risk Transfer

Risk transfer is a risk management and control strategy that involves the contractual shifting of a pure risk from one party to another. Risk transfer is most often accomplished through an insurance policy under the social protection measures in the field of disaster management. This is a voluntary arrangement between two parties, the insurance company and the policy holder, where the insurance company assumes strictly defined financial risk from the policy holder. When done effectively, risk transfer allocates risk equitably, placing responsibility of risk on designated parties consistent with their ability to control and insure against that risk, liability should ideally rest with

whichever party has the most control over the sources of potential liability. In some particular cases, re-insurance options must also be considered.

Insurance is an umbrella concept involving multi-branched intricacies and terminologies. To identify and procure the right insurance company with the appropriate policy docket for the envisaged insurance scheme is a task that requires in-depth analysis about the existing insurance products, their purposes and thus their utility. To function effectively, insurance must satisfy a number of objectives including pooling risk, paying out claims, ensuring the solvency of insurers and incentivizing safe behavior.

Following the risk transfer protocols, the current strategy of the government of Uttarakhand is to explore possibility of a combination of financial instruments to cost effectively finance the contingent liabilities of natural disasters and thus reducing the burden on the state exchequer in terms of compensation and rehabilitation. To implement this in a planned and systematic manner the state government intends to engage a consultancy agency that can provide answers to all the queries of the government in formulating the risk transfer instruments so envisaged.

3. Objective

The purpose of this proposed engagement is to build an understanding of the contingent liabilities faced by the government of Uttarakhand and to develop financial strategies to increase its financial response capacity on the aftermath of natural disasters, while protecting their long-term fiscal balances. The consultancy firm to be engaged has to study, review, collect and analyze necessary data for the formulation of a strategic document which outlines government priorities on disaster risk finance keeping track record of the existing insurance policies, benefitting the resident population of the state and the state itself. By developing such a strategic document, it is intended to build financial resilience in the state through sovereign disaster risk financing, property catastrophe risk insurance, agricultural insurance, and disaster micro-insurance. This comprehensive study is to (i) identify extent of contingent liabilities faced from natural disasters, (ii) analyze scope and implementation of various existing insurance schemes in the state of Uttarakhand, (iii) implementation modalities, liabilities and benefits emanating from these schemes, (iv) carry out a baseline survey, and (v) develop an

appropriate insurance service proposals for the state of Uttarakhand, thus reducing the financial burden on the state exchequer that follow the aftermath of a disaster.

4. Scope of Work

The work is to be conducted in two phases over a period of 8 months with the first phase prioritizing the collection of data to improve the understanding of disaster losses and expenditures in the state of Uttarakhand. The second phase is to focus on the development of a disaster risk financing strategy and how existing instruments used can be improved/complemented with additional financial instruments to better manage the contingent liabilities from natural disasters. This report is to include options for confederation and an implementation plan with key actions and timelines.

The proposed comprehensive study for the risk financing strategy document development and financial instrument proposals development is to cover the following components:

- Review the past ten to fifteen years of post-disaster expenditures to identify the level of contingent liabilities incurred by the state. This has to be done using the framework developed by the World Bank and Organization for Economic Cooperation and Development (OECD).
- Identification and analysis of disaster specific annual losses (both life and property) incurred due to various natural hazards in the state.
- Plan and conduct a baseline surveys to collect relevant and accurate data contributing to the formulation of risk financing strategy document including options for consideration as to how to improve the insurance coverage against natural disasters recognizing that several instruments should be investigated to complement insurance coverage.
- Study and review of the existing schemes, both life and general insurance schemes, implemented by the central and/or state governments related to natural disasters.
- Thorough market survey of commercial policies related to disaster risk transfer.

- Organization and analysis of the collected data easing content management to arrive at a proper docket realizing the development of strategic document for implementation of disaster risk financing in Uttarakhand.
- Formulation of draft disaster risk financing and insurance strategy which outlines the priorities of the government of Uttarakhand to inform risk transfer and the associated insurance proposal with the inclusion of desired multiple financial instruments with different covers satisfying the needs of the envisaged insurance scheme.
- Incorporation of suggestions and recommendations from the Insurance Advisory Committee, Government of Uttarakhand into the final policy docket to be implemented through the insurance scheme envisaged.

PHASE I:

DETAILED ASSESSMENT OF THE ECONOMIC AND FISCAL IMPACT OF NATURAL DISASTERS IN UTTARAKHAND

Activity 1: Compilation and analysis of disaster loss data in Uttarakhand and Risk identification

The consultancy agency to be engaged shall collect and compile information related to the natural disaster loss data and calamity compensation figures, thus forming a database leading to analysis of losses due to natural disasters to different sectors. This information shall be used to quantify the contingent liabilities from natural disasters face by the government of Uttarakhand. Calamity wise damage and loss data, memorandums and sector wise allocations of the State Disaster Response Fund (SDRF) and the National Disaster Response Fund (NDRF) shall be collected and analyzed for a minimum of previous 10 years. This analysis is to give an indication on the annual losses incurred by the state exchequer, the frequency of the disasters, loss patterns, and the figures of the compensation amounts released for disaster relief and rehabilitation. Based on the historical data, a probabilistic assessment of the estimates of costs and consequences (including direct and indirect economic losses) should be carried out to identify the impact of natural disasters at various geographical and socio economic conditions.

To arrive at a logical conclusion, the consultancy agency to be engaged shall complete the following tasks.

TASKS:

- Utilize available data on post-disaster expenditures (at the sub-national and where appropriate national level) including an associated budget reallocation, providing guidance to the local consultant as needed;
- Analyze the composition of such spending;
- Examine the distribution of the funds across budget programs, dedicated and embedded ones;
- Identify any critical gaps in accounting, classification and reporting of such expenditure items;
- Quantify contingent liabilities in Uttarakhand using the World Bank and OECD framework; and,
- Identify options for managing the identified contingent liabilities for the consideration of the respective governments
- Compilation, expansion and analysis of existing datasets for Uttarakhand on natural disasters to the district level where possible up to 10 years; including:
 - Frequency, severity, and costs of natural disasters by type of natural disasters (including, but not limited to, earthquake, landslides, floods, flash floods, road accidents, drought, heat wave, lightning, man animal conflict, storms and the like)
 - Frequency, severity, and costs of natural disasters by economic sector (e.g., agriculture, infrastructure, residential assets, commercial and industrial assets)
- Collect item-wise calamity compensation release data from the SDRF and NDRF for a minimum period of 10 years.
- The consultancy agency to be engaged is expected to collect and compile loss data from the memorandums prepared and submitted by the Government of Uttarakhand in the wake of natural calamities/disasters for a timeline period of 10 years.
- Review of major natural disasters in Uttarakhand in the past 10 years and their fiscal impact to the government (revenue and expenditures)

- Short term budgetary impact (i.e., up to 6 months after disaster)
- Medium term budgetary impact (i.e., up to 1 year after disaster)
- Long term budgetary impact (i.e., more than 1 year after disaster)
- Quantify the contingent liabilities caused by multiple disasters and define the set of rules that triggered expenditure.
- Calculate the basic difference between the estimated losses quoted by the state and the actual compensation released by the state and/or the centre towards relief and rescue.
- The consultancy agency to be engaged shall refer to besides others the Disaster Risk Assessment Study conducted by USDMA under UDRP project, various reports and publications of Disaster Mitigation and Management Centre (DMMC) and the Census of India, 2011 data to assess the hazard exposure and the associated vulnerability with area specific disaster and its related losses.
- Carryout catastrophe risk modeling to assess disasters likely impact based on frequency and severity.
- Combined analysis of disaster loss data, calamity relief compensation data, and demographic studies analysis shall be incorporated by the consultancy to calculate the associated risk with respect to the parameters of life, infrastructure, crops and livestock that are primarily to be included in the risk finance strategic road map document guiding to the development of risk transfer instruments. The resulting vulnerability and risk thus calculated must take into consideration area specific natural hazards that include earthquake, landslides, floods (urban and rural), flash floods, storm surges, drought, lightning and heat-waves etc.

Deliverables:

- Report on the contingent liabilities from natural disasters in Uttarakhand which should include options for consideration on how to better manage these contingent liabilities.
- Identification of different loss and the associated allocation patterns in relation with area specific disasters.

- Identification of the target population to be covered in the scheme with their associated vulnerability and risk (monetary) in relation with the area specific natural hazards.
- Determining the associated risk (monetary) of the people, infrastructure, crops and livestock vulnerable to different area specific disasters.
- Catastrophe risk modeling based scenarios of direct and indirect losses and contingent liabilities to various natural disasters
- Compilation of a detailed output document, describing the collected data, analysis and results to be submitted to the concerned officials of the Government of Uttarakhand for scrutiny and approval.

Activity 2 : Conduct baseline survey, preparation of exposure database, and analysis of the data for the formulation of the policy docket required for developing Insurance Strategy document, catastrophe risk insurance, agriculture insurance and disaster micro-insurance schemes

The consultancy agency to be engaged shall conduct a baseline survey on the sector wise and geographically based socio-economic profile of the insured and the uninsured, in both the rural and urban areas assessing catastrophic risk coverage, public perception, insurance penetration, economic losses related to natural disasters etc. The data collected through the surveys must ease the formulation of a draft strategic policy document meeting all the needs and demands of Government of Uttarakhand for successful implementation of insurance service scheme.

The tasks associated with this phase of work are of utmost importance to the project as the logical conclusions and recommendations arising from the analysis of the data and information gathered, shall contribute vital information to the formation of a tentative policy docket for the envisaged insurance scheme.

As per the Demographic Particulars of Census, 2011, Uttarakhand has a total population of 1,00,86,292 out of which the urban population is 30,49,338 and the rest of 70,36,954 form the rural population. The total number of households in the state is 20,56,975. Out of this, 0.1% of the total households to be surveyed in this engagement.

The consultancy agency to be engaged shall follow the tentative survey schedule and related analysis steps.

TASKS:

- The consultancy agency to be engaged shall develop precise questionnaires focusing specifically on:
 - The existing insurance schemes
 - ◆ Utility
 - ◆ Claim settlement procedures
 - ◆ Coverage
 - The types of different insurance coverage items likely to be included in the envisaged insurance scheme apart from the already included covers for the people, covering various sectors and segments according to the need of the resident population.
 - To understand the penetration of the insurance as a risk transfer mechanism into the different sects of the population (focus is to be more on the marginal, the Schedule Castes (SCs), the Schedule Tribes (STs), the Other Backward Castes (OBCs), Below Poverty Line (BPL) households and families, Persons With Disabilities (PWDs) and women).
 - The perceptions of the population to be interviewed about the envisaged insurance scheme.
- The questionnaire prepared will be subjected to pilot testing with the concurrence of the Government of Uttarakhand before final approval.
- The consultancy agency to be engaged shall formulate a sampling procedure (preferably a cluster sampling associated with systematic random sampling) that will specifically focus on the following parameters:
 - Rural areas and the resident population
 - Urban areas and the resident population
 - Hazard prone areas
 - Safe areas
 - Different housing patterns (spatial distribution of population attributes like apartments, individual houses, slums etc.)

- Different geographic areas (flood plains, hilly terrains, etc.)
- The sampling procedure shall be submitted by the consultancy agency to be engaged for finalization to the Government of Uttarakhand.
- The consultancy agency to be engaged shall carry out the baseline survey with the finalized questionnaires and the finalized sampling procedure at the household level with the sample size of 0.1% of total households of the total households in the state.
- Preparation of an online database and/or MIS platform shall be undertaken and completed by the consultancy agency for future references of the collected and compiled data of the insurers and the types of coverage provided.

Deliverables:

- Survey database and statistically analyzed results.
- Combined analysis report of Activity 1 and Activity 2
- Detailed assessment of the disaster risk, frequency and economic and fiscal impact of natural disasters
- Output document based on the analysis of the compiled data collected through baseline survey.
- The consultancy agency to be engaged shall reach to a logical conclusion and provide recommendations which will provide vital inputs for the development of the risk financing policy document and docket of insurance service proposals

PHASE II DEVELOPING DISASTER RISK FINANCING STRATEGIC DOCUMENT AND PROPOSALS FOR PROPERTY CATASTROPHE RISK INSURANCE, AND DISASTER MICRO-INSURANCE

Activity 1: Review and study of existing schemes, both life and general insurance schemes, implemented by the central and/or state governments related to natural disasters in Uttarakhand

The main objective of this phase is to study and review all the schemes implemented by the Government of India in the state of Uttarakhand and Government of Uttarakhand to provide financial support to the affected people, easing their burden to recover after

devastating disasters that include earthquakes, landslides, floods, flash floods, storms, lightning, heat-waves and droughts. Every disaster must be considered on an individual basis so as to have the exact idea of what clauses and sub-clauses related to life and non-life (general) insurance products that are to be included in the policy docket, with regards to the individual vulnerability of the resident population exposed to specific disaster. A detailed study of the schemes is needed to know the pros and cons in the implementation processes of the insurance schemes. The analysis of the data collected through the completion of this phase of work will help the concerned authorities understand the limitations and benefits of various insurance schemes, helping them to determine the best practices that need to be followed during and after the implementation of the envisaged insurance scheme. To arrive at a logical conclusion, the consultancy agency to be engaged shall complete the following tasks.

TASKS:

- Identification of the departments and/or agencies that are involved in the state level implementation of Central government insurance policies in Uttarakhand and state government policies related to natural disasters in the State.
- Identify various schemes operational in the state; collect and compile the statistics of policy holders and the process of claims settlements incurred in various segments and sectors.
- Literature review of the existing data about various types of insurance policies and their analysis which will help identifying what is covered and what is not to assist Government in prioritizing financing instruments for financial resilience.
- Identify the limitations and benefits of running and closed insurance scheme.
- Consultations with officials who have implemented and/or currently implementing insurance schemes offered by the state and/or the central government to understand the best practices for optimal implementation of property catastrophe risk insurance, agricultural insurance and disaster micro-insurance schemes.
- Conduct a market survey on the commercial policies available for disaster loss coverage.

Deliverables:

- Identification and documentation of the total number of available insurance schemes operational in the state of Uttarakhand.
- Classification of the schemes into two standard groups' viz. Life and General insurance.
- Identification and documentation of the reasons for the failures and/or modifications of certain/all schemes in the state.
- Identifying and documenting the limitations to be avoided and best practices to be followed which will translate the scheme into a success.
- Submission of the output document describing the data collected and its methodology, and conclusions with respect to the analysis of the operational schemes.

Activity 2: Organization and analysis of the collected data easing content management to arrive at a Sovereign Risk Financing Strategic Document to realize the implementation of target based specific insurance schemes.

The consultancy agency to be engaged will analyze and organize the collected data through Phase 1 and Phase 2 and subject it to content management procedures to arrive at a final policy document defining the priorities of the Government towards achieving financial resilience. Develop property catastrophe risk insurance, agricultural insurance, and disaster micro-insurance schemes to specific targeted population on the basis of strategic document and pave the way for implementing the schemes into functionality, working all the while in tandem with the Government of Uttarakhand.

TASKS:

- Analyzing the baseline survey report which explains the risk profile of the state of Uttarakhand, elaborating on the sector wise details for the coverage parameters and the survey parameters along with the compiled data of the vital information collected through the successful completion of Phase 1 and Phase 2 tasks shall form the Strategic document defining the priorities of the Government towards achieving financial resilience

- The consultancy agency shall prepare implementable population specific and area specific proposals for
 - Property catastrophe risk insurance to increase property catastrophe
 - insurance penetration among homeowners, small and medium enterprises, and public entities
 - Agricultural insurance for farmers, herders and agricultural financing institutions (e.g., rural banks, microfinance institutions) to increase their financial resilience to adverse natural hazards
 - Disaster micro-insurance schemes to facilitate access to disaster insurance products to protect the livelihood of the poor against extreme weather events and promote disaster risk reduction in conjunction with social programs such as conditional cash transfer programs, social safety nets.
- The consultancy agency to be engaged shall calculate the premium rates for the policy docket to be applicable for the implementation of each schemes with special focus on the rates by considering the status of the family/household to be covered under the scheme (Above Poverty Line or Below Poverty Line) and thus make the necessary recommendations for the arrangement of subsidy and/or full remittance of the premium amount by the Government of Uttarakhand to the Insurance Companies providing the insurance coverage under the envisaged scheme.
- The necessary provisions for smooth and hassle free claim settlement shall be proposed by the consultancy agency in the draft policy docket. The consultancy agency can also include the process of reinsurance provided by any insurance company in its methodology to zero in on particular insurance companies having potential enough to meet the required standards of the Government of Uttarakhand to implement such an scheme, so as to be on the safer side of the agreement for the betterment of the larger public.
- The consultancy agency to be engaged will then, with the assent of the Government of Uttarakhand shall submit the formulated policy docket for the envisaged insurance scheme to the Government.

- Incorporate the suggestions and/or recommendations of the Government of Uttarakhand and the submission of the final policy docket for the insurance scheme.

5. Deliverables and Time Schedules

The total period for the completion of the said process from study to formulation of the policy docket is a maximum of 8 months. Effective date shall be considered as the date of the signing of the agreement. During the entire period of the contract, the engaged consulting firm will follow the presented time-table.

Phase	Activity	Expected Deliverable	Time Scale	Duration
	Submission of Inception Report Inception Report covering; a)	Road map and timeline for preparation of disaster risk financing strategy document and development of risk transfer instruments	T0	7 days from the date of signing of the Contract
Phase I	Activity 1: Compilation and analysis of disaster loss data in Uttarakhand State and Risk identification	Quantification of economic and fiscal impact of natural disasters in Uttarakhand	T1	4 months from T0
	Activity 2: Conduct baseline survey, preparation of exposure database, and analysis of the data for the formulation of the policy docket required for developing Insurance Strategy document, catastrophe risk insurance, agriculture insurance and disaster micro-insurance	Creation of Exposure data base and detailed assessment geography specific disaster risk, frequency and exposure and fiscal impacts	T2	5 months from T0.

	schemes			
Phase II	Activity 1: Review and study of existing schemes, both life and general insurance schemes, implemented by the central and/or state governments related to natural disasters in Uttarakhand)	Evaluation of the existing schemes and identification of best practices and reasons of failures.	T3	6 months from T0
	Activity 2: Organization and analysis of the collected data easing content management to arrive at a Sovereign Risk Financing Strategic Document to realize the implementation of target based specific insurance schemes.	Submission of final draft of the risk financing strategic document and insurance scheme proposals	T4	8 months from T0

6. Payment Schedule

Sr. No.	Time Period	Percentage
1	On submission of Inception Report	10%
2	On Completion of Phase I Activity 1	20%
3	On Completion of Phase 1 Activity 2	30%
4	On Completion of Phase II Activity 1	20%
5	On Completion of Phase II Activity 2	20%

7. Selection Procedure and Form of Contract

The firm will be selected following the state government procurement rules

8. Qualifications of the Consultancy Firms for this Engagement

- This assignment is suitable for a consultancy firm having a vast experience in insurance sector and possesses a minimum of 10 years of experience consultancy service for State Government or Central Government.
- The consultant firm should have a successful track record of designing and completing evaluations of nation-wide/inter-state/state-wide insurance services/development projects funded by international funding agencies/GOI or State governments or their agencies/ international NGOs/corporate sector.
- Organization must have a substantial survey infrastructure to support field- based data collection, electronic archiving of the data ensuring highest-level of confidentiality for survey as well as high validity of responses.
- The consultant firm must have carried out similar study involving fairly large samples during similar baseline survey

9. Key Professionals

The consultant firm should be able to deploy the following core team exclusively for this engagement, clearly indicating the time commitment of each member for the studies. The CVs of the core team members will be evaluated as part of the evaluation of the technical proposal

I. Team Leader

- Post Graduate in economics, statistics, mathematics, actuarial science or relevant field.
- 15 years of experience in project management related to insurance sector and fiscal risk analysis of public sector.
- Practical experience in developing/drafting fiscal risk analysis for public sector.

Responsibility: Co-ordinate and supervise the Consultancy Team for delivering the Consultancy in a timely manner as envisaged in this TOR.

II. Insurance Expert

- Post Graduate in economics, statistics, mathematics, actuarial science or relevant field.

- Minimum 10 years of experience in insurance risk calculations, pricing and product development. Must having track record of disaster related fiscal risk and the design of disaster risk financing solutions.

- Fellow of Institute of Actuaries of India would be preferred.

Responsibility: Risk calculations, pricing and Insurance scheme development based on the studies and baseline survey.

III. Survey Lead

- Post Graduate in economics, statistics, mathematics, actuarial science or relevant field.

- Minimum 10 years of experience in survey and demographic studies at National/State level.

Responsibility: Design and implementation – actual survey, analysis and report preparation of baseline survey

IV. Data Analyst

- Post Graduate in mathematics, economics, statistics.

- 10years experience in demographic studies, SPSS analysis/statistical studies.

Responsibility: Survey data analysis and generation of reports.

V. IT Expert

- Degree in software programming.

- 10 years of experience in development of data formats, database design and generation of reports for social research.

Responsibility: Developing/customizing data entry software, development of data entry forms/management of database/analysis of data using SPSS/STATA/Atlas.ti and generation of tables and graphics

10. Implementation Arrangements

The consulting firm shall report to the designated officer of USDMA. The Team Leader of the consulting firm shall be the principal contact and will be expected to be readily available during the assignment. The consulting firm shall be responsible for all aspects of performance of services as set forth in the preceding sections of these ToR.