

CONTRACT FOR CONSULTANT'S SERVICES

Lump-Sum

**Selection of Consultant "Benefit Monitoring & Evaluation
Study of NCRMP Phase-II (Mid & End Term Evaluation)"
Credit No.IDA-5693-IN**

Contract No.IN-NDMA-36097-CS-QCBS

between

The Project Director,
National Cyclone Risk Mitigation Project (NCRMP)
National Disaster Management Authority (NDMA),
(Ministry of Home Affairs, Govt. of India),
NDMA Bhawan, A-1, Safdarjung Enclave,
New Delhi-110029

and

M/s Academy of Management Studies (AMS),
15, Laxmanpuri Faizabad Road,
Lucknow - 226 016

Dated: 31/10/2018




I. Form of Contract
LUMP-SUM

This CONTRACT (hereinafter called the "Contract") is made the (-----) day of the month of *September, 2018*, between, on the one hand, The Project Director, National Cyclone Risk Mitigation Project (NCRMP) National Disaster Management Authority (NDMA) (hereinafter called the "Client") and, on the other hand, M/s AMS, Lucknow.

WHEREAS

- (a) the Client has requested the Consultant to provide certain consulting services as defined in this Contract (hereinafter called the "Services");
- (b) the Consultant, having represented to the Client that it has the required professional skills, expertise and technical resources, has agreed to provide the Services on the terms and conditions set forth in this Contract;
- (c) the Client has received credit from the International Development Association (IDA): toward the cost of the Services and intends to apply a portion of the proceeds of this credit to eligible payments under this Contract, it being understood that (i) payments by the Bank will be made only at the request of the Client and upon approval by the Bank; (ii) such payments will be subject, in all respects, to the terms and conditions of the financing agreement, including prohibitions of withdrawal from the credit account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, is prohibited by the decision of the United Nations Security council taken under Chapter VII of the Charter of the United Nations; and (iii) no party other than the Client shall derive any rights from the financing agreement or have any claim to the credit proceeds;



NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:

- (a) The General Conditions of Contract (including Attachment 1 "Bank Policy – Corrupt and Fraudulent Practices);
- (b) The Special Conditions of Contract;
- (c) Appendices:

Appendix A: Terms of Reference (including Annexure-I)

Appendix B: Description of Services

Appendix C: Key Experts

Appendix D: Breakdown of Contract Price

Appendix E: Minutes of Negotiation meeting

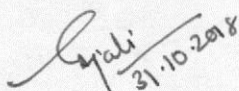
In the event of any inconsistency between the documents, the following order of precedence shall prevail: the Special Conditions of Contract; the General Conditions of Contract, including Attachment 1; Appendix A; Appendix B; Appendix C; Appendix D & Appendix E. Any reference to this Contract shall include, where the context permits, a reference to its Appendices.


2. The mutual rights and obligations of the Client and the Consultant shall be as set forth in the Contract, in particular:

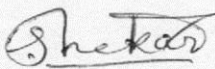
- (a) the Consultant shall carry out the Services in accordance with the provisions of the Contract; and
- (b) the Client shall make payments to the Consultant in accordance with the provisions of the Contract.


IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of Addl. Secretary & Project Director, NCRMP, NDMA


(Geetanjali)
Project Manager, NCRMP, NDMA


(A.K. Dwivedi)
Director
Academy of Management Sciences


Witness: (G.P. Chandra Shekhar)
Proc. Sp.
31/10/2018


Witness: (G.D. Upadhyay)
National Field Coordinator, AMS
31/10/2018

II. General Conditions of Contract

A. GENERAL PROVISIONS

1. Definitions

1.1. Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "Applicable Guidelines" means Guidelines for Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011.
- (b) "Applicable Law" means the laws and any other instruments having the force of law in the Client's country, or in such other country as may be specified in the **Special Conditions of Contract (SCC)**, as they may be issued and in force from time to time.
- (c) "Bank" means the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA).
- (d) "Borrower" means the Government, Government agency or other entity that signs the financing agreement with the Bank.
- (e) "Client" means the implementing agency that signs the Contract for the Services with the Selected Consultant.
- (f) "Consultant" means a legally-established professional consulting firm or entity selected by the Client to provide the Services under the signed Contract.
- (g) "Contract" means the legally binding written agreement signed between the Client and the Consultant and which includes all the attached documents listed in its paragraph 1 of the Form of Contract (the General Conditions (GCC), the Special Conditions (SCC), and the Appendices).
- (h) "Day" means a working day unless indicated otherwise.
- (i) "Effective Date" means the date on which this Contract comes into force and effect pursuant to Clause GCC 11.
- (j) "Experts" means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, Sub-consultant or JV member(s) assigned by the Consultant to perform the Services or any part thereof under the Contract.
- (k) "Foreign Currency" means any currency other than the currency of the Client's country.
- (l) "GCC" means these General Conditions of Contract.
- (m) "Government" means the government of the Client's country.
- (n) "Joint Venture (JV)" means an association with or without a legal personality distinct from that of its members, of more than one entity where one member has the authority to conduct all businesses for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the Client for the performance of the Contract.
- (o) "Key Expert(s)" means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose Curricula Vitae (CV) was taken into account in the technical evaluation of the Consultant's proposal.
- (p) "Local Currency" means the currency of the Client's country.
- (q) "Non-Key Expert(s)" means an individual professional provided by the Consultant or its Sub-consultant to perform the Services or any part thereof under the Contract.

(r) "Party" means the Client or the Consultant, as the case may be, and "Parties" means both of them.

(s) "SCC" means the Special Conditions of Contract by which the GCC may be amended or supplemented but not over-written.

(t) "Services" means the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A hereto.

(u) "Sub-consultants" means an entity to whom/which the Consultant subcontracts any part of the Services while remaining solely liable for the execution of the Contract.

(v) "Third Party" means any person or entity other than the Government, the Client, the Consultant or a Sub-consultant.

2. Relationship between the Parties

2.1. Nothing contained herein shall be construed as establishing a relationship of master and servant or of principal and agent as between the Client and the Consultant. The Consultant, subject to this Contract, has complete charge of the Experts and Sub-consultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

3. Law Governing Contract

3.1. This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.

4. Language

4.1. This Contract has been executed in the language specified in the SCC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

5. Headings

5.1. The headings shall not limit, alter or affect the meaning of this Contract.

6. Communications

6.1. Any communication required or permitted to be given or made pursuant to this Contract shall be in writing in the language specified in Clause GCC 4. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the SCC.

6.2. A Party may change its address for notice hereunder by giving the other Party any communication of such change to the address specified in the SCC.

7. Location

7.1. The Services shall be performed at such locations as are specified in Appendix A hereto and, where the location of a particular task is not so specified, at such locations, whether in the Government's country or elsewhere, as the Client may approve.

8. Authority of Member in Charge

8.1. In case the Consultant is a Joint Venture, the members hereby authorize the member specified in the SCC to act on their behalf in exercising all the Consultant's rights and obligations towards the Client under this Contract, including without limitation the receiving of instructions and payments from the Client.

9. Authorized Representatives

9.1. Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the Client or the Consultant may be taken or executed by the officials specified in the SCC.

10. Corrupt and Fraudulent Practices

10.1. The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Attachment 1 to the GCC.

a.

Commissions and Fees

10.2. The Client requires the Consultant to disclose any commissions, gratuities or fees that may have been paid or are to be paid to agents or any other party with respect to the selection process or execution of the Contract. The

information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee. Failure to disclose such commissions, gratuities or fees may result in termination of the Contract and/or sanctions by the Bank.

B. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

11. Effectiveness of Contract

11.1. This Contract shall come into force and effect on the date (the "Effective Date") of the Client's notice to the Consultant instructing the Consultant to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the SCC have been met.

12. Termination of Contract for Failure to Become Effective

12.1. If this Contract has not become effective within such time period after the date of Contract signature as specified in the SCC, either Party may, by not less than twenty two (22) days written notice to the other Party, declare this Contract to be null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party with respect hereto.

13. Commencement of Services

13.1. The Consultant shall confirm availability of Key Experts and begin carrying out the Services not later than the number of days after the Effective Date specified in the SCC.

14. Expiration of Contract

14.1. Unless terminated earlier pursuant to Clause GCC 19 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SCC.

15. Entire Agreement

15.1. This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.

16. Modifications or Variations

16.1. Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.

16.2. In cases of substantial modifications or variations, the prior written consent of the Bank is required.

17. Force Majeure

a. Definition

17.1. For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible under the circumstances, and subject to those requirements, includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action confiscation or any other action by Government agencies.

17.2. Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Experts, Sub-consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both take into account at the time of the conclusion of this Contract, and avoid or overcome in the carrying out of its obligations hereunder.

17.3. Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

b. No Breach of Contract

17.4. The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

c. Measures to be Taken

17.5. A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

17.6. A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any case not later than fourteen (14) calendar days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.

17.7. Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

17.8. During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the Client, shall either:

- (a) demobilize, in which case the Consultant shall be reimbursed for additional costs they reasonably and necessarily incurred, and, if required by the Client, in reactivating the Services; or
- (b) continue with the Services to the extent reasonably possible, in which case the Consultant shall continue to be paid under the terms of this Contract and be reimbursed for additional costs reasonably and necessarily incurred.

17.9. In the case of disagreement between the Parties as to the existence or extent of Force Majeure, the matter shall be settled according to Clauses GCC 44 & 45.

18. Suspension

18.1. The Client may, by written notice of suspension to the Consultant, suspend all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not exceeding thirty (30)



calendar days after receipt by the Consultant of such notice of suspension.

19. Termination

19.1. This Contract may be terminated by either Party as per provisions set up below:

a. By the Client

19.1.1. The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause. In such an occurrence the Client shall give at least thirty (30) calendar days' written notice of termination to the Consultant in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e); and at least five (5) calendar days' written notice in case of the event referred to in (f):

- (a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to Clause GCC 18;
- (b) If the Consultant becomes (or, if the Consultant consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GCC 45.1;
- (d) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;
- (e) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;
- (f) If the Consultant fails to confirm availability of Key Experts as required in Clause GCC 13.

19.1.2. Furthermore, if the Client determines that the Consultant has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Client may, after giving fourteen (14) calendar days written notice to the Consultant, terminate the Consultant's employment under the Contract.

b. By the Consultant

19.1.3. The Consultant may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Client, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.

- (a) If the Client fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to Clause GCC 45.1 within forty-five (45) calendar days after receiving written notice from the Consultant that such payment is overdue.
- (b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days.
- (c) If the Client fails to comply with any final decision reached as a result of arbitration pursuant to Clause GCC 45.1.
- (d) If the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Consultant may have subsequently approved in writing) following the receipt by the Client of the Consultant's notice specifying such breach.

c. Cessation of Rights and Obligations

19.1.4. Upon termination of this Contract pursuant to Clauses GCC 12 or GCC 19 hereof, or upon expiration of this Contract pursuant to Clause GCC 14, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, (ii) the obligation of confidentiality set forth in Clause GCC 22, (iii) the Consultant's obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause GCC 25, and (iv) any right which a Party may have under the Applicable Law.

d. Cessation of Services

19.1.5. Upon termination of this Contract by notice of either Party to the other pursuant to Clauses GCC 19a or GCC 19b, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultant and equipment and materials furnished by the Client, the

**e. Payment
upon
Termination**

Consultant shall proceed as provided, respectively, by Clauses GCC 27 or GCC 28.

19.1.6. Upon termination of this Contract, the Client shall make the following payments to the Consultant:

- (a) payment for Services satisfactorily performed prior to the effective date of termination; and
- (b) in the case of termination pursuant to paragraphs (d) and (e) of Clause GCC 19.1.1, reimbursement of any reasonable cost incidental to the prompt and orderly termination of this Contract, including the cost of the return travel of the Experts.

C. OBLIGATIONS OF THE CONSULTANT

20. General

**a. Standard of
Performance**

20.1 The Consultant shall perform the Services and carry out the Services with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as a faithful adviser to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with the third parties.

20.2. The Consultant shall employ and provide such qualified and experienced Experts and Sub-consultants as are required to carry out the Services.

20.3. The Consultant may subcontract part of the Services to an extent and with such Key Experts and Sub-consultants as may be approved in advance by the Client. Notwithstanding such approval, the Consultant shall retain full responsibility for the Services.

**b. Law
Applicable
to Services**

20.4. The Consultant shall perform the Services in accordance with the Contract and the Applicable Law and shall take all practicable steps to ensure that any of its Experts and Sub-consultants, comply with the Applicable Law.

20.5. Throughout the execution of the Contract, the Consultant shall comply with the import of goods and services prohibitions in the Client's country when

- (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country; or

- (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country.

20.6. The Client shall notify the Consultant in writing of relevant local customs, and the Consultant shall, after such notification, respect such customs.

21. Conflict of Interests

21.1. The Consultant shall hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.

a. Consultant Not to Benefit from Commissions, Discounts, etc.

21.1.1 The payment of the Consultant pursuant to GCC F (Clauses GCC 38 through 42) shall constitute the Consultant's only payment in connection with this Contract and, subject to Clause GCC 21.1.3, the Consultant shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or in the discharge of its obligations hereunder, and the Consultant shall use its best efforts to ensure that any Sub-consultants, as well as the Experts and agents of either of them, similarly shall not receive any such additional payment.

21.1.2 Furthermore, if the Consultant, as part of the Services, has the responsibility of advising the Client on the procurement of goods, works or services, the Consultant shall comply with the Bank's Applicable Guidelines, and shall at all times exercise such responsibility in the best interest of the Client. Any discounts or commissions obtained by the Consultant in the exercise of such procurement responsibility shall be for the account of the Client.

b. Consultant and Affiliates Not to Engage in Certain Activities

21.1.3 The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-consultants and any entity affiliated with such Sub-consultants, shall be disqualified from providing goods, works or non-consulting services resulting from or directly related to the Consultant's Services for the preparation or implementation of the project, unless otherwise indicated in the SCC.

- c. **Prohibition of Conflicting Activities** 21.1.4 The Consultant shall not engage, and shall cause its Experts as well as its Sub-consultants not to engage, either directly or indirectly, in any business or professional activities that would conflict with the activities assigned to them under this Contract.
- d. **Strict Duty to Disclose Conflicting Activities** 21.1.5 The Consultant has an obligation and shall ensure that its Experts and Sub-consultants shall have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Client, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Contract.
- 22. Confidentiality** 22.1 Except with the prior written consent of the Client, the Consultant and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Consultant and the Experts make public the recommendations formulated in the course of, or as a result of, the Services.
- 23. Liability of the Consultant** 23.1 Subject to additional provisions, if any, set forth in the **SCC**, the Consultant's liability under this Contract shall be provided by the Applicable Law.
- 24. Insurance to be Taken out by the Consultant** 24.1 The Consultant (i) shall take out and maintain, and shall cause any Sub-consultants to take out and maintain, at its (or the Sub-consultants', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage specified in the **SCC**, and (ii) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid. The Consultant shall ensure that such insurance is in place prior to commencing the Services as stated in Clause GCC 13.
- 25. Accounting, Inspection and Auditing** 25.1 The Consultant shall keep, and shall make all reasonable efforts to cause its Sub-consultants to keep, accurate and systematic accounts and records in respect of the Services and in such form and detail as will clearly identify relevant time changes and costs.
- 25.2 The Consultant shall permit and shall cause its Sub-consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or all accounts and records relating to the performance of the Contract and the submission of the Proposal to provide the Services, and to have such accounts and records audited by auditors appointed by the

Bank if requested by the Bank. The Consultant's attention is drawn to Clause GCC 10 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under this Clause GCC25.2 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility under the Bank's prevailing sanctions procedures.)

**26. Reporting
Obligations**

26.1 The Consultant shall submit to the Client the reports and documents specified in **Appendix A**, in the form, in the numbers and within the time periods set forth in the said Appendix.

**27. Proprietary
Rights of the
Client in Reports
and Records**

27.1 Unless otherwise indicated in the **SCC**, all reports and relevant data and information such as maps, diagrams, plans, databases, other documents and software, supporting records or material compiled or prepared by the Consultant for the Client in the course of the Services shall be confidential and become and remain the absolute property of the Client. The Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Consultant may retain a copy of such documents, data and/or software but shall not use the same for purposes unrelated to this Contract without prior written approval of the Client.

27.2 If license agreements are necessary or appropriate between the Consultant and third parties for purposes of development of the plans, drawings, specifications, designs, databases, other documents and software, the Consultant shall obtain the Client's prior written approval to such agreements, and the Client shall be entitled at its discretion to require recovering the expenses related to the development of the program(s) concerned. Other restrictions about the future use of these documents and software, if any, shall be specified in the **SCC**.

**28. Equipment,
Vehicles and
Materials**

28.1 Equipment, vehicles and materials made available to the Consultant by the Client, or purchased by the Consultant wholly or partly with funds provided by the Client, shall be the property of the Client and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultant shall make available to the Client an inventory of such equipment, vehicles and materials and shall dispose of such equipment, vehicles and materials in accordance with the Client's instructions. While in possession of such equipment, vehicles

and materials, the Consultant, unless otherwise instructed by the Client in writing, shall insure them at the expense of the Client in an amount equal to their full replacement value.

28.2 Any equipment or materials brought by the Consultant or its Experts into the Client's country for the use either for the project or personal use shall remain the property of the Consultant or the Experts concerned, as applicable.

D. CONSULTANT'S EXPERTS AND SUB-CONSULTANTS

29. Description of Key Experts

29.1 The title, agreed job description, minimum qualification and estimated period of engagement to carry out the Services of each of the Consultant's Key Experts are described in **Appendix B.**

30. Replacement of Key Experts

30.1 Except as the Client may otherwise agree in writing, no changes shall be made in the Key Experts.

30.2 Notwithstanding the above, the substitution of Key Experts during Contract execution may be considered only based on the Consultant's written request and due to circumstances outside the reasonable control of the Consultant, including but not limited to death or medical incapacity. In such case, the Consultant shall forthwith provide as a replacement, a person of equivalent or better qualifications and experience, and at the same rate of remuneration.

31. Removal of Experts or Sub-consultants

31.1 If the Client finds that any of the Experts or Sub-consultant has committed serious misconduct or has been charged with having committed a criminal action, or shall the Client determine that Consultant's Expert or Sub-consultant have engaged in corrupt, fraudulent, collusive, coercive or obstructive practice while performing the Services, the Consultant shall, at the Client's written request, provide a replacement.

31.2 In the event that any of Key Experts, Non-Key Experts or Sub-consultants is found by the Client to be incompetent or incapable in discharging assigned duties, the Client, specifying the grounds therefore, may request the Consultant to provide a replacement.

31.3 Any replacement of the removed Experts or Sub-consultants shall possess better qualifications and experience and shall be acceptable to the Client.

31.4 The Consultant shall bear all costs arising out of or incidental to any removal and/or replacement of such Experts.



32. Assistance and Exemptions

E. OBLIGATIONS OF THE CLIENT

32.1 Unless otherwise specified in the **SCC**, the Client shall use its best efforts to:

- (a) Assist the Consultant with obtaining work permits and such other documents as shall be necessary to enable the Consultant to perform the Services.
- (b) Assist the Consultant with promptly obtaining, for the Experts and, if appropriate, their eligible dependents, all necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in the Client's country while carrying out the Services under the Contract.
- (c) Facilitate prompt clearance through customs of any property required for the Services and of the personal effects of the Experts and their eligible dependents.
- (c) Issue to officials, agents and representatives of the Government all such instructions and information as may be necessary or appropriate for the prompt and effective implementation of the Services.
- (d) Assist the Consultant and the Experts and any Sub-consultants employed by the Consultant for the Services with obtaining exemption from any requirement to register or obtain any permit to practice their profession or to establish themselves either individually or as a corporate entity in the Client's country according to the applicable law in the Client's country.
- (e) Assist the Consultant, any Sub-consultants and the Experts of either of them with obtaining the privilege, pursuant to the applicable law in the Client's country, of bringing into the Client's country reasonable amounts of foreign currency for the purposes of the Services or for the personal use of the Experts and of withdrawing any such amounts as may be earned therein by the Experts in the execution of the Services.
- (f) Provide to the Consultant any such other assistance as may be specified in the **SCC**.

33. Access to Project Site

33.1 The Client warrants that the Consultant shall have, free of charge, unimpeded access to the project site in respect of which access is required for the performance of the Services. The Client will be responsible for any damage to the project site or any property thereon resulting from such access and will indemnify the Consultant and each of the experts in

- respect of liability for any such damage, unless such damage is caused by the willful default or negligence of the Consultant or any Sub-consultants or the Experts of either of them.
- 34. Change in the Applicable Law Related to Taxes and Duties**
- 34.1 If, after the date of this Contract, there is any change in the applicable law in the Client's country with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Contract shall be increased or decreased accordingly by agreement between the Parties hereto, and corresponding adjustments shall be made to the Contract price amount specified in Clause GCC 38.1
- 35. Services, Facilities and Property of the Client**
- 35.1 The Client shall make available to the Consultant and the Experts, for the purposes of the Services and free of any charge, the services, facilities and property described in the Terms of Reference (**Appendix A**) at the times and in the manner specified in said **Appendix A**.
- 36. Counterpart Personnel**
- 36.1 The Client shall make available to the Consultant free of charge such professional and support counterpart personnel, to be nominated by the Client with the Consultant's advice, if specified in **Appendix A**.
- 36.2 Professional and support counterpart personnel, excluding Client's liaison personnel, shall work under the exclusive direction of the Consultant. If any member of the counterpart personnel fails to perform adequately any work assigned to such member by the Consultant that is consistent with the position occupied by such member, the Consultant may request the replacement of such member, and the Client shall not unreasonably refuse to act upon such request.
- 37. Payment Obligation**
- 37.1 In consideration of the Services performed by the Consultant under this Contract, the Client shall make such payments to the Consultant for the deliverables specified in **Appendix A** and in such manner as is provided by GCC F below.
- 38. Contract Price**
- F. PAYMENTS TO THE CONSULTANT**
- 38.1 The Contract price is fixed and is set forth in the **SCC**. The Contract price breakdown is provided in **Appendix C**.
- 38.2 Any change to the Contract price specified in Clause 38.1 can be made only if the Parties have agreed to the revised scope of Services pursuant to Clause GCC 16 and have amended in writing the Terms of Reference in **Appendix**

A.

39. Taxes and Duties

39.1 The Consultant, Sub-consultants and Experts are responsible for meeting any and all tax liabilities arising out of the Contract unless it is stated otherwise in the **SCC**.

39.2 As an exception to the above and as stated in the **SCC**, all local identifiable indirect taxes (itemized and finalized at Contract negotiations) are reimbursed to the Consultant or are paid by the Client on behalf of the Consultant.

40. Currency of Payment

40.1 Any payment under this Contract shall be made in the currency(ies) of the Contract.

41. Mode of Billing and Payment

41.1 The total payments under this Contract shall not exceed the Contract price set forth in Clause GCC 38.1.

41.2 The payments under this Contract shall be made in lump-sum installments against deliverables specified in **Appendix A**. The payments will be made according to the payment schedule stated in the **SCC**.

41.2.1 Advance payment: Unless otherwise indicated in the **SCC**, an advance payment shall be made against an advance payment bank guarantee acceptable to the Client in an amount (or amounts) and in a currency (or currencies) specified in the **SCC**. Such guarantee (i) is to remain effective until the advance payment has been fully set off, and (ii) is to be in the form set forth in **Appendix D**, or in such other form as the Client shall have approved in writing. The advance payments will be set off by the Client in equal portions against the lump-sum installments specified in the **SCC** until said advance payments have been fully set off.

41.2.2 The Lump-Sum Installment Payments. The Client shall pay the Consultant within sixty (60) days after the receipt by the Client of the deliverable(s) and the cover invoice for the related lump-sum installment payment. The payment can be withheld if the Client does not approve the submitted deliverable(s) as satisfactory in which case the Client shall provide comments to the Consultant within the same sixty (60) days period. The Consultant shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated.

41.2.3 The Final Payment .The final payment under this

Clause shall be made only after the final report I have been submitted by the Consultant and approved as satisfactory by the Client. The Services shall then be deemed completed and finally accepted by the Client. The last lump-sum installment shall be deemed approved for payment by the Client within ninety (90) calendar days after receipt of the final report by the Client unless the Client, within such ninety (90) calendar day period, gives written notice to the Consultant specifying in detail deficiencies in the Services, the final report. The Consultant shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated. 41.2.4 All payments under this Contract shall be made to the accounts of the Consultant specified in the SCC.

41.2.4 With the exception of the final payment under 41.2.3 above, payments do not constitute acceptance of the whole Services nor relieve the Consultant of any obligations hereunder.

**42. Interest on
Delayed
Payments**

42.1 If the Client had delayed payments beyond fifteen (15) days after the due date stated in Clause GCC 41.2.2, interest shall be paid to the Consultant on any amount due by, not paid on, such due date for each day of delay at the annual rate stated in the SCC.

G. FAIRNESS AND GOOD FAITH

43. Good Faith

43.1 The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

H. SETTLEMENT OF DISPUTES

**44. Amicable
Settlement**

44.1 The Parties shall seek to resolve any dispute amicably by mutual consultation.

44.2 If either Party objects to any action or inaction of the other Party, the objecting Party may file a written Notice of Dispute to the other Party providing in detail the basis of the dispute. The Party receiving the Notice of Dispute will consider it and respond in writing within fourteen (14) days after receipt. If that Party fails to respond within fourteen (14) days, or the dispute cannot be amicably settled within fourteen (14) days following the response of that Party, Clause GCC 45.1 shall apply.



**45. Dispute
Resolution**

45.1 Any dispute between the Parties arising under or related to this Contract that cannot be settled amicably may be referred to by either Party to the adjudication/arbitration in accordance with the provisions specified in the **SCC**.



General Conditions

Attachment 1: Bank's Policy – Corrupt and Fraudulent Practices

Guidelines for Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011:

"Fraud and Corruption"

1.23 It is the Bank's policy to require that Borrowers (including beneficiaries of Bank loans), consultants, and their agents (whether declared or not), sub-contractors, sub-consultants, service providers, or suppliers, and any personnel thereof, observe the highest standard of ethics during the selection and execution of Bank-financed contracts [footnote: In this context, any action taken by a consultant or any of its personnel, or its agents, or its sub-consultants, sub-contractors, services providers, suppliers, and/or their employees, to influence the selection process or contract execution for undue advantage is improper.]. In pursuance of this policy, the Bank:

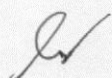
- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party¹;
 - (ii) "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation²;
 - (iii) "collusive practices" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party³;
 - (iv) "coercive practices" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party⁴;

¹7 For the purpose of this sub-paragraph, "another party" refers to a public official acting in relation to the selection process or contract execution. In this context "public official" includes World Bank staff and employees of other organizations taking or reviewing selection decisions.

18 For the purpose of this sub-paragraph, "party" refers to a public official; the terms "benefit" and "obligation" relate to the selection process or contract execution; and the "act or omission" is intended to influence the selection process or contract execution.

¹⁹ For the purpose of this sub-paragraph, "parties" refers to participants in the procurement or selection process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish prices at artificial, non-competitive levels, or are privy to each other's bid prices or other conditions.

²⁰ For the purpose of this sub-paragraph, "party" refers to a participant in the selection process or contract execution.



- (v) "obstructive practice" is
- (aa) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or
 - (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights;
- (b) will reject a proposal for award if it determines that the consultant recommended for award or any of its personnel, or its agents, or its sub-consultants, sub-contractors, services providers, suppliers, and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- (c) will declare misprocurement and cancel the portion of the Loan allocated to a contract if it determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the Loan were engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the selection process or the implementation of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner they knew of the practices;
- (d) will sanction a firm or an individual at any time, in accordance with prevailing Bank's sanctions procedures⁵, including by publicly declaring such firm or an ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract, and (ii) to be a nominated⁶ sub-consultant, supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract.

21 A firm or an individual may be declared ineligible to be awarded a Bank-financed contract upon (i) completion of the Bank's sanctions proceedings as per its sanctions procedures, including inter alia: cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application of the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceedings. See footnote 12 and paragraph 8 of Appendix 1 of these Guidelines.

²² A nominated sub-consultant, supplier, or service provider is one which has been either (i) included by the consultant in its proposal because it brings specific and critical experience and know-how that are accounted for in the technical evaluation of the consultant's proposal for the particular services; or (ii) appointed by the Borrower.

III. Special Conditions of Contract

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1(b) and 3.1	Words "Client's country" are amended to read "in India", "Applicable Law" means law prevailing in India.
4.1	The language is: English
6.1 and 6.2	<p>The addresses are:</p> <p>Client : Geetanjali The Project Manager National Cyclone Risk Mitigation Project (NCRMP)</p> <p>Address : National Disaster Management Authority NDMA Bhawan, A-1, Safdarjung Enclave, New Delhi-110029 Fax : 011- 26714321 E-mail (where permitted): pm.ncrmp@gov.in</p> <p>Consultant : Academy of Management Studies (AMS) Address : 15, Laxmanpuri, Faizabad Road, Lucknow – 226016, Ph No.: 0522 2352492 Fax : 0522 - 2350466 E-mail (where permitted) : ams@amsidia.org</p>
8.1	N/A
9.1	<p>The Authorized Representative For the Client: Geetanjali The Project Manager National Cyclone Risk Mitigation Project (NCRMP) National Disaster Management Authority NDMA Bhawan, A-1, Safdarjung Enclave, New Delhi-110029</p>

	Name of Authorised Representative For the Consultant: Dr. Swati Raman Academy of Management Studies (AMS) 15, Laxmanpuri, Faizabad Road, Lucknow – 226016
12.1	Termination of Contract for Failure to Become Effective: The time period shall be One Month.
13.1	Commencement of Services: The number of days shall be 15 days.
14.1	Expiration of Contract: The time period shall be 22 Months including training.
21 b.	The Client reserves the right to determine on a case-by-case basis whether the Consultant should be disqualified from providing goods, works or non-consulting services due to a conflict of a nature described in Clause GCC 21.1. N/A
24.1	The insurance coverage against the risks shall be as follows <ul style="list-style-type: none"> (a) Professional liability insurance, with a minimum coverage of 1.5 times of the value of the contract. (b) Third Party liability insurance, with a minimum coverage of Rs. 7 Lakh. (c) employer's liability and workers' compensation insurance in respect of the experts and Sub-consultants in accordance with the relevant provisions of the applicable law in the Client's country, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate; and (d) insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the Consultant's property used in the performance of the Services, and (iii) any documents prepared by the Consultant in the performance of the Services.
27.1	The Consultant shall not use these documents and data for purposes unrelated to this Contract without the prior written

	approval of the Client.
38.1	<p>The Contract price is: INR (Indian Rupees) exclusive of local indirect taxes.</p> <p>Any indirect local taxes chargeable in respect of this Contract for the Services provided by the Consultant shall be paid by the Client to the Consultant.</p> <p>Only GST (Goods & Services Tax) is to be included in the cost. The client shall pay GST payable in India as per applicable law. The consultant shall register itself for GST with appropriate authorities in India and provide registration number to the Client.</p>
41.2	<p>The payment schedule shall be as follows:</p> <ul style="list-style-type: none"> (a) 10% of the lump-sum amount shall be paid upon successful submission/acceptance of Deliverable 1 (b) 15% of the lump-sum amount shall be paid upon successful submission/acceptance of Deliverable 2 (c) 25% of the lump-sum amount shall be paid upon successful submission/acceptance of Deliverable 3 (d) 25% of the lump-sum amount shall be paid upon successful submission/acceptance of Deliverable 4 (e) 25% of the lump-sum amount shall be paid upon successful submission/acceptance of Deliverable 5.
41.2.4	<p>The accounts are:</p> <p>for local currency consultant's Account Details:</p> <p>Account Name: Academy of Management Studies</p> <p>Branch Name: Allahabad Bank, Main Branch, Hazratganj, Lucknow</p> <p>Bank A/c No.: 50026228005</p> <p>IFSC Code: ALLA0210062</p>
42.1	The interest rate is: 10% for INR.
45.1	<p>Disputes shall be settled by arbitration in accordance with the following provisions:</p> <ol style="list-style-type: none"> 1. Selection of Arbitrators. Each dispute submitted by a Party to arbitration shall be heard by a sole arbitrator or an arbitration panel composed of three (3) arbitrators, in accordance with the following provisions: <ul style="list-style-type: none"> (a) Where the Parties agree that the dispute concerns a

	<p>technical matter, they may agree to appoint a sole arbitrator or, failing agreement on the identity of such sole arbitrator within thirty (30) days after receipt by the other Party of the proposal of a name for such an appointment by the Party who initiated the proceedings, either Party may apply to President, Institute of Engineers, India for a list of not fewer than five (5) nominees and, on receipt of such list, the Parties shall alternately strike names therefrom, and the last remaining nominee on the list shall be the sole arbitrator for the matter in dispute. If the last remaining nominee has not been determined in this manner within sixty (60) days of the date of the list, Institute of Engineers, India shall appoint, upon the request of either Party and from such list or otherwise, a sole arbitrator for the matter in dispute.</p> <p>(b) Where the Parties do not agree that the dispute concerns a technical matter, the Client and the Consultant shall each appoint one (1) arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the arbitrators named by the Parties do not succeed in appointing a third arbitrator within thirty (30) days after the latter of the two (2) arbitrators named by the Parties has been appointed, the third arbitrator shall, at the request of either Party, be appointed by President, Institute of Engineers, India .</p> <p>(c) If, in a dispute subject to paragraph (b) above, one Party fails to appoint its arbitrator within thirty (30) days after the other Party has appointed its arbitrator, the Party which has named an arbitrator may apply to the President, Institute of Engineers, India to appoint a sole arbitrator for the matter in dispute, and the arbitrator appointed pursuant to such application shall be the sole arbitrator for that dispute.</p>
	<p>2. Rules of Procedure. Except as otherwise stated herein, arbitration proceedings shall be conducted in accordance with the rules of procedure for arbitration of the United Nations Commission on International Trade Law</p>




	<p>(UNCITRAL) as in force on the date of this Contract.</p> <p>3. Substitute Arbitrators. If for any reason an arbitrator is unable to perform his/her function, a substitute shall be appointed in the same manner as the original arbitrator.</p> <p>4. Nationality and Qualifications of Arbitrators. The sole arbitrator or the third arbitrator appointed pursuant to paragraphs 1(a) through 1(c) above shall be an internationally recognized legal or technical expert with extensive experience in relation to the matter in dispute and shall not be a national of the Consultant's home country [If the Consultant consists of more than one entity, add: or of the home country of any of their members or Parties] or of the Government's country. For the purposes of this Clause, "home country" means any of:</p> <p>(a) the country of incorporation of the Consultant [If the Consultant consists of more than one entity, add: or of any of their members or Parties]; or</p> <p>(b) the country in which the Consultant's [or any of their members' or Parties'] principal place of business is located; or</p> <p>(c) the country of nationality of a majority of the Consultant's [or of any members' or Parties'] shareholders; or</p> <p>(d) the country of nationality of the Sub-consultants concerned, where the dispute involves a subcontract.</p>
	<p>5. Miscellaneous. In any arbitration proceeding hereunder:</p> <p>(a) proceedings shall, unless otherwise agreed by the Parties, be held in [select a country which is neither the Client's country nor the Consultant's country];</p> <p>(b) the [type of language] language shall be the official language for all purposes; and</p> <p>(c) the decision of the sole arbitrator or of a majority of the</p>




	arbitrators (or of the third arbitrator if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.
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Appendix-A

Terms of Reference

Consulting Services for Benefit Monitoring & Evaluation Study of NCRMP Phase-II (Mid & End Term Evaluation)

PROJECT BACKGROUND

The National Cyclone Risk Mitigation Project ('NCRMP') (herein after called 'Project') is a World Bank funded project, for which the National Disaster Management Authority ('NDMA') is the nodal implementation agency at National level. Government of India has approved Phase-I in January, 2011 and the completion date is March 2018. Phase-I covers the States of Andhra Pradesh & Odisha at an Outlay of Rs. 2541.60 crore Phase-II was approved in July, 2015 and the completion date is March 2020. Phase-II covers the States of Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal at an Outlay of Rs 2361.35Cr with the World Bank funding amounting to Rs1881.20Cr. The remaining amount of Rs.480.15Cr. is being contributed by State Governments as their share.

The key objectives of the Project are as follows:

- Reductions in cyclone vulnerability of coastal States, through creation of appropriate infrastructure which can help mitigate the adverse impacts of cyclones.
- Strengthening of cyclone warning systems enabling quick dissemination of warnings and advisories from source/districts/sub-districts level to the community and vice versa for their timely reception and adequate response
- Enhance capacity and capability of local communities to respond to disasters, and Strengthening Disaster Risk Mitigation (DRM) capacity at Central, State and Local levels in order to enable mainstreaming of risk mitigation measures into the overall development agenda.

1. Project Components

Based on the above objectives, the Project has been divided into four components, namely"

Component A – Early Warning Dissemination System (EWDS) - Last Mile Connectivity for the dissemination of cyclone warnings and advisories from district/sub-district level to communities and vice versa. This will be implemented




by States in consultation with NDMA.

Component B - Construction of physical infrastructure for cyclone risk mitigation like cyclone shelters, saline embankments, roads, bridges and underground cabling. This Component will be implemented by the States/UTs.

Component C – Technical assistance for capacity building on disaster risk management for mainstreaming of DRR policies, programmes & and their implementation. NDMA/National Institute of Disaster Management is the implementation agency for this component.

Component D- Project Management and Monitoring applicable to all implementing agencies.

2. Project Implementation Arrangements

A Project Management Unit ('PMU') has been set up at the NDMA. This PMU is responsible for overall implementation of NCRMP, as well as coordinating and monitoring the implementation of the Project activities by the respective Project Implementing Units (PIUs) in the States and NIDM. While the line departments of the participating States are the implementation agencies on ground for Component 'B' of the Project. Components 'A' and 'C' of the Project will be implemented by the States, NDMA/NIDM.

3. Overall Project Supervision, Reporting & Monitoring (SRM) Framework

The multi-tier implementation arrangements under the project include supervision and monitoring roles and responsibilities of the various players involved in implementation. Monitoring will occur as a periodic function, and will include process reviews/audits, reporting of outputs, and maintaining progressive records, covering the following thematic areas:-

- Social and Environmental Monitoring
- Independent Quality Monitoring
- Periodic Physical and Financial Progress Monitoring
- Benefit Monitoring and Evaluation

4. Benefit Monitoring And Evaluation (BME)

The Consultants for Benefit Monitoring and Evaluation ('BME') Study will be appointed by the PMU, NCRMP at NDMA. The Consultant shall report to PMU, NCRMP on its findings.

5. Objective of Benefit Monitoring and Evaluation Study

Benefit Monitoring & Evaluation is to monitor and evaluate the outcomes/results of the project interventions. The objectives of the assignment are to undertake i) Benefit Monitoring & Evaluation at Mid-term of Phase-II ii) End- term of Phase-II of the project compared to the baseline.

6. SCOPE OF WORK

The study will be carried out in three well defined steps:-

Step I --- Will setup/update the baseline data and conduct pilot study

Step II — Will conduct mid-term evaluation

Step III --- Will conduct the end-term evaluation

The study shall incorporate both qualitative & quantitative analysis and will be used as a tool for midcourse corrections. A broad framework for assessing the results of the Project is given in the Table below.



Table: Results Framework

	Key Performance Indicator(s)	Means of Verification
Outcome Level		
Reduced vulnerability of coastal communities in participating states to cyclone and climate related hazards	<p>Proportion (%) of targeted coastal population covered by the Early Warning Dissemination System and the efficacy of the system in all emergent situations</p> <ul style="list-style-type: none"> • Proportion (%) of people having access to emergency shelter and their ability to maintain the structures including efficient use of the structures during normal times • Number of people and hectares of land protected by strengthened/improved embankments • Increased number of people connected through road communication network. • Increased awareness about warnings and emergency response • Advantages of Under Ground Cabling 	Quantitative/Qualitative Surveys for comparison with base line.
Capacity built towards managing disasters	<ul style="list-style-type: none"> • % of targeted communities / people trained in use of early warning and evacuation procedures • Number of government officials trained on specific disaster management skills • Preparation of long-term training and capacity building strategy and Damage and Loss Assessments • Completion of risk assessment studies and the use of such studies for disaster risk reduction 	Quantitative studies to assess the first two items and a qualitative assessment on the use of the consultancies
Sustainability of Project intervention	<ul style="list-style-type: none"> • Measuring the performance of the key indicators at the gram panchayat/ local bodies/ community level 	Qualitative Surveys for benefits evaluation of the

	Key Performance Indicator(s)	Means of Verification
	<ul style="list-style-type: none"> Collecting information at the institutional level through interaction with project implementation functionaries of the States 	beneficiary community

7. Primary data relating to population, demography and other scientific studies will be drawn from national accredited institutions and local administration to form the basis for measuring performance. During implementation, project progress and impact data will be collected from all stakeholders viz: beneficiary communities, NGOs, Community Based Organizations (CBOs), implementing agencies (IAs), Third Party Quality Auditors and implementation progress reports.
8. The Consultants will be required to carry out primary surveys during two stages of the Study :-

States	Coastal Districts	No. of Villages	HHs per village	Total no of HHs
A. Stage I (Mid-term Evaluation of Phase-II): 6 surveys				
Goa	2	20	20	400
Gujarat	16	100	20	2000
Karnataka	3	20	20	400
Kerala	9	30	20	600
Maharashtra	6	50	20	1000
West Bengal	3	50	20	1000
Total (A)				5400
B. Stage II (End-term Evaluation of Phase-II): 6 surveys				
Goa	2	20	20	400

Gujarat	16	100	20	2000
Karnataka	3	20	20	400
Kerala	9	30	20	600
Maharashtra	6	50	20	1000
West Bengal	3	50	20	1000
Total (B)				5400
(A+B) i.e., 12 surveys				10800 HHs

9. The survey should cover quantitative aspects such as number of Shelters, number of Saline Embankments, Underground Cabling etc. and will also cover qualitative aspects in terms of the nature and adequacy of training the community in emergency response and receipt of warning messages and capacity built for understanding the disaster risk reduction measures, contemplated. For the survey – particularly to measure qualitative aspects;

specific parameters, questionnaires, reasonable size of sample, sampling and survey strategy (including orientation and training of surveyors, data verification and authentication) shall be designed, in consultation with NDMA, the States and the World Bank. The Consultant shall conduct a Pilot Sample Study before conducting mid-term survey in at least 2 villages in each of the six States, to test the questionnaire and modify the same based on feedback. Actual survey (not the pilot survey) shall be repeated during the two stages of evaluation. Full information shall be given in support of information collected and to establish its veracity; in the form of photographs, signatures of contacts etc.

10. Cost Benefit Analysis

The Consultant shall also conduct a Cost Benefit study to evaluate the quantum of disaster loss (in terms of loss of human lives and property) that could be avoided by implementation of NCRMP over a period of time. This would broadly give us the benefit of a major disaster mitigation activity vis-à-vis the cost and, thus, could provide statistics on how much rupees of disaster losses can be saved by spending one rupee in disaster mitigation.

11. Time Schedule, Type of Contract & Payments

The contract period shall be **22 months**. It will be a lump sum contract where payments will be linked with submission and acceptance of deliverables in installments.

12. Deliverables and Timelines

The key deliverables for the assignment along with respective timelines are as follows. The deliverables and tentative timelines for mid-term (Phase-II) and end-term (Phase-II) evaluations are given below, which shall be finalized during project implementation. For all these deliverables, drafts shall be prepared first before finalizing the reports. Each deliverable (draft, final) shall be made in five hard copies, and a soft copy.

Sl. No.	Deliverables	Timeline
1	Inception Report outlining methodology of Study, coverage, sample size, questionnaire etc	Within 30 days of signing the contract.
2	Baseline data report covering clear quantitative and qualitative assessment of various key Performance Indicators of Phase-II	Within 2 months of signing the contract.
3	Pilot Study to test the questionnaire/survey tools	Within 4 months of signing the contract.
4	Mid-term Review Report covering quantitative and qualitative assessment of Key Performance Indicators vis-à-vis Baseline data and recommendations for midcourse corrections	By December, 2018
5	End review report covering (i) quantitative and qualitative assessment of Key Performance Indicators vis-à-vis Baseline data and evaluation of Project Outcomes and suggestions for upstream activities to ensure sustainability. and (ii) Cost Benefit Analysis	By January/February, 2020

Note : Deliverables & timelines as modified under Appendix- E to the Contract will be applicable.

13. Tentative Team Composition and Estimated Man Month Inputs

The tentative estimated key man-month requirement for the duration of the project is about 53 man-months. The Consultant's team will consist of the following professionals. The team shall be deployed as necessary, during the two specific stages of mid-term and end-term.

Sl. No.	Position in the Team/maximum no of positions	Consultant profile	Man months
1	Team Leader / 1	Post Graduate in Economics or Sociology with a minimum 15 years experience of managing similar assignments. Persons having experience of working in the field of disaster management and exposure to international assignments will be preferred.	12
2	Social Management Expert/ 1	Post graduate with relevant specialisation in the field of Social Sciences. Minimum 10-12 years experience in social research studies	3
3	Statistical Analyst/1	M.Sc in Statistics with a minimum of 5 years of experience in survey research and analysis. He/ she must be conversant with the latest software available for statistical analysis.	9
4	Survey Team Leaders/5 Nos	Post Graduates in Science/Humanities with at least 5 years experience in the preparation of questionnaires, sampling techniques and conduct of surveys – One Team Leader for each state with proficiency in the local language	20

5	Disaster Risk Management Expert/1	The specialist will have a graduate /post graduate degree in the disaster risk management or related filed with 5 years of experience specifically with Community-Based Disaster Risk Mitigation (CBDRM) activities. The Consultant must have good experience in working with the Indian administrative system and knowledge in dealing with disaster mitigation interventions and communications, preferably within a multi-disciplinary team.	6
6	Analyst/Expert (Cost-Benefit)	PG in Economics with 10 yrs experience of undertaking Cost Benefit / Economic Return analysis including tangible/intangible benefits of similar/large projects.	3
	Total man months		53

Supporting staff such as Data Entry Operators shall be deployed as needed by the Consultant at their cost.

- ✓ 14. The Consultant will be reporting to PMU of the NCRMP at NDMA. This is an ongoing task, in which the status of the project shall be communicated to PMU through weekly/monthly brief progress report (10-15 pages) by the Consultant and specific meetings as needed with the Consultant.

15. DATA AND SERVICES TO BE PROVIDED BY THE CLIENT

The Consultant will be provided access to all such information as is necessary to plan and execute the assignment. It shall include:

- i. Project documents available in public domain such as ESMF, procurement plan, manuals etc.
- ii. Contracts/tenders for selected sites, including special specifications.
- iii. Access to sites, and support of the nodal department.
- iv. Progress Reports, Reports of other Consultants.

16. REVIEW AND MONITORING OF CONSULTANT'S WORK

Consultant's performance and quality of work will be reviewed by a review committee set up by the PMU, NCRMP including the representatives from the states.



Annexure-1 to Appendix-A

Subject: Consolidated clarification to the queries up to 5:00 PM 04.04.2018 against RFP for hiring of Consulting services for "Benefit Monitoring and Evaluation Study" under National Cyclone Risk Mitigation Project (NCRMP) Phase-II.

Sl. No.	Clause no.	Clarifications sought by the bidders	Clarifications
1	Data Sheet 2.4 on page no.31 Consultants will be provided with relevant available project related data/reports at no cost by the client for the preparation of the Consultant's proposal.	<p>Please elaborate on the reports available with the PMU. This shall enable us to understand the extent of work required for preparing Inception report and Baseline data report.</p> <p>Request to provide district names to be covered in each of the 6 States (Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal), progress reports of Phase-II, PIP and baseline report.</p> <p>A both technical and financial proposals will be based on it, request to let the consultants know by which date the Consultants will receive it</p>	<p>Necessary information including Mid-Term Report available in public domain was shared during pre-bid meeting.</p> <p>Only the coastal districts of each States need to be covered where NCRMP II is being implemented. Progress Report and other related information are available at NCRMP website</p>
2	Data Sheet 14.1.1 on page no. 32 Estimated input of the Key Experts' time-input: 53 person-months	<p>Please elaborate on the basis of estimation of total person-months.</p> <p>Since the deployment of team members will not be continuous, how will the person-months be calculated during the assignment?</p> <p>The methodology and line of action may vary</p>	<p>The man- months suggested is only tentative (Clasue-15, Page. 72). It is going to be a Lump Sum Contract and the Man-Months are mentioned to arrive to an approx. cost of the study.</p>

		from Consultant to Consultant. Do the Consultants have to stick to number of person months suggested for different key experts on page 72-73, while keeping 53 total person months unchanged? Or can it be changed up to 1-2 months for some expert (s)	
4	Office Space	We will request for provision of Office Space for the team deployed on the assignment	The Consultant has to work from their offices and travel to NCRMP States and PMU, NDMA as and when required
3	Data sheet 21.1 on page no. 33 Specific experience of the Consultant (as a firm) relevant to the assignment in last 10 years (w.e.f. 2007)	Please elaborate on the relevant specific experience. We propose experience requirement be categorised on the lines of EOI: 1) Benefit monitoring/Impact Assessment/Monitoring & Evaluation assignments with focus on social survey 2) Assignments undertaken for large Public Sector/Government organisation 3) Assignments undertaken for externally funded projects e.g. World Bank, ADB etc. For how many assignments, will the maximum marks of 10 be achieved We would request that evaluation weightage be assigned to Survey Team Leaders too. Mid-term and End-term evaluation are the key components of this assignment and quality of primary data collection will be strongly dependent on the competency of the survey team leaders deployed. 6 Weightage assigned to Team Leader may be reduced to accommodate weightage for survey team leaders.	Specific experience means Benefit Monitoring and Evaluation /Impact Assessment assignments with focus on social survey only. Consultant should provide details of specific experience for last 10 years to be evaluated by the committee.
5	Data Sheet 21.1 on page no. 33 Key Experts' qualifications and competence for the Assignment		RfP condition prevails
6	Data Sheet 21.1 on page no. 34 Training of field survey support staff (methodology and content)	Please elaborate the evaluation parameter for the said criteria. Is there any specific training expected for the field survey staff	Methodology and content of training are to be proposed by the Consultants. Evaluation will be done as to what extent it helps in achieving the

			objective of the study
7	Sample Form on page no. 57 Consultant's Representation regarding Costs and Charges	<p>Is it required to share the true copies of the consultant's latest pay slips? Since this is not going to be a continuous deployment of experts for 22 months, the consultants might not be efficiently utilized for the duration when not working on the NCRMP assignment.</p> <p>While we agree that the Client is the custodian of Government funds and wants to exercise prudence, all the bidders will try to be competitive to get this assignment.</p> <p>We request you to consider this aspect and drop the requirement of provision of latest pay slips.</p>	It is a Lump-sum Contract. Pay-slip is not mandatory at this stage. However, it may be asked at a later/appropriate stage if required before finalization of the contract.
8	Model Form I on page no. 58 Consultant's representations regarding Costs and Charges	Is it mandatory to submit the details as per Model Form-1? We propose to provide only the fixed rate/month/day/hour.	Ref. Q. 7
9	Financial Strength of the Firm	We propose that financial strength of the firm be an important criteria of evaluation for the bidders since the assignment includes large scale survey work across 270 districts in 6 States	RFP condition prevails
10	Indicative budget	Please indicate the tentative budget for this assignment	Selection of the Consultant has to be done as per Quality-cum-Cost-Based Selection (QCBS) with 80% technical and 20% financial weightage. Consultant is required to quote as per their assessment.
11	Phase-1 report	We request you to share the Phase-1 reports on reduced cyclone vulnerability, capacity build towards managing disasters and sustainability of interventions in Odisha and	Necessary information including Mid-Term Report is available in public domain and shared during pre-bid meeting. Further details shall be shared with the selected Consultant.

12	<p>Section 7: Terms of Reference on page no. 69</p> <p>Primary data relating to population, demography and other scientific studies will be drawn from National accredited institutions and local administration to form the basis for measuring performance</p>	AP	<p>Please advise which national accredited institutions to be contacted for the collection of data</p>	<p>Selected Consultant may suggest the data source. Registrar General & Census Commissioner of India provides population and demographic data. Other relevant data can be obtained from various National Institutes depending on the nature of data.</p>
13	<p>Section 7: Terms of Reference on page no. 69</p> <p>During implementation, project progress and impact data will be collected from all stakeholders viz: beneficiary communities, NGOs, Community Based Organisations (CBO's), implementing agencies (IAs), Third Party Quality Auditors and implementations progress reports</p>		<p>Please share the list of NGOs and Community Based Organizations (CBOs) to be contacted in the 6 States to collect the impact data for the assignment.</p>	<p>Necessary information on NGOs/institutions/organisations associated with the Project Implementation at the State level to be worked out by selected Consultant in coordination with respective State Project Implementation Unit's (SPIUs), whereas, necessary facilitation to be provided by PMU, NDMA.</p>
14	<p>Section 7: Terms of Reference on page no. 71</p> <p>It will be a lump sum contract where payments will be linked with submission and acceptance of deliverables in instalments</p>		<p>Please define the acceptance protocol (number of days, number of reviews, number of times changes/comments be provided etc.) for the deliverables. Since, the deployment of experts is not continuous, it is important to estimate the efforts required for the acceptance of the deliverables. We propose that a deliverable be deemed approved in case no comments/changes are provided within 15 days of submission</p>	<p>Consultant's performance and quality of work will be reviewed by a review committee set up by the PMU, NCRMP including the representatives from the States. In this matter Clause 41 & 42 under General Conditions may also be referred to.</p>
15	<p>Special Conditions of Contract on page no. 101</p>		<p>Please elaborate on the trainings that need to be conducted under the assignment.</p>	<p>Trainings of the field survey teams to be organised by the Consultant during Pilot, Mid & End-Term</p>

	Expiration of Contract: The time period shall be 22 months including training	Deliverable defined for the assignment (page no. 71) does not mention the trainings to be conducted.	Study.
16	<p>Pt. 8 of Section 7: Terms of Reference: Page no. 65</p> <p>Step 1 ---will setup/update the baseline data and conduct pilot study</p> <p>Pt.14 of Section 7: Terms of Reference: Page no. 71</p> <p>Baseline data report covering clear quantitative and qualitative assessment of various key Performance indicators of Phase-II</p> <p>Pg. 65.</p> <p>In Terms of Reference, Scope of Work indicated "setup/update the baseline data and conduct pilot study"</p>	<p>Please provide details on the study design that has been adopted for the baseline (of Phase II), so that a comparative strategy may be considered.</p> <p>Please elaborate on what is meant by setup baseline data?</p> <p>Kindly also elaborate on what is expected in the Deliverable-baseline data report? Is the consultant expected to review the baseline data vis a vis existing databases and secondary research? Or is the expectation that field verification of baseline data be carried out?</p> <p>The ToR indicated that Phase-II was started in 2015 and as per out understanding the baseline survey would have been conducted in 2015 itself. Kindly clarify by updating the baseline data what is expected from the Consultants.</p> <p>Is this the same pilot study which would be conducted by the Consultant in 12 villages (2 from each of the 6 States) before conducting Mid- Term Evaluation</p>	<p>Baseline data here means data of the pre- Project implementation stage @ August, 2015. Format/details for baseline data setup/update has to be suggested by selected Consultant as per performance indicators at Clause 8 (Pg. 68) and as per requirement.</p> <p>Necessary information on NGOs/ institutions/ organisations associated with the Project Implementation at the State level to be worked out by selected Consultant in coordination with respective State Project Implementation Unit's (SPIUs) and they may be approached for necessary data collection. Necessary facilitation in this regard to be provided by PMU, NDMA.</p> <p>Based upon the format finalised for data collection States/concerned, agencies shall be approached by selected consultant. Data collected shall be reviewed through existing database/secondary research, however, field verification is not required.</p> <p>Yes</p>
17	Page 70	The findings of the qualitative assessment will	Tools & Sample size for Qualitative

	Will also cover qualitative aspects in terms of the nature and adequacy of training the community in emergency response and receipt of warning messages and capacity built for understanding the disaster risk reduction measures contemplated.	be very crucial for validating the quantitative findings during the mid-term and end-term evaluation therefore consultant suggests indicating the sample size so that there is adequate sample size to validate the quantitative data.	assessment/analysis has to be suggested by Consultant in their methodology whereas, no. of primary surveys required for quantitative assessment is being presented in the pre-bid meeting
18	The Consultant shall also conduct a Cost Benefit study to evaluate the quantum of disaster loss (in terms of loss of human lives and property) that could be avoided by implementation of NCRMP over a period of time.	Consultant understands that this would be part of the mid-term and end-term evaluation. Kindly confirm if 2 separate Cost Benefit Studies are needed to be conducted by the Consultant in addition to mid-term and end-term evaluation	The Cost Benefit Study has to be done both at the Mid-term and End-term evaluation for the Project
19	The deliverables table indicates submission of baseline data report covering clear qualitative and quantitative assessment of various key Performance indicators of Phase-II within 2 months of signing the contract	<p>The Consultant is not clear about the deliverable. Consultant assumes that this must be updating the baseline data by collating quantitative data on certain indicators available on MIS (if is established and maintained since 2015).</p> <p>For qualitative whether consultant is expected to do a rapid assessment through conducting few FGDs may be 1 in each of the State. Kindly clarify and if is a detail study kindly indicate the sample size for both quantitative and qualitative as this will have budget implication and the practicality of the given timeline of 2 months can be checked.</p>	Refer to Q. 16 & 17
20	Tentative Team Composition Disaster Risk Management Expert "The Specialist will have a graduate/ post graduate degree	It is requested that Disaster Risk Management Expert may be PG in any discipline with relevant experience.	RfP condition prevails

21	<p>in the disaster risk management"</p> <p>Post Graduate in Economics or Sociology with a minimum 15 years experience of managing similar assignment</p> <p>Persons having experience of working in the field of disaster management and exposure to international assignments will be preferred</p>	<p>It is suggested that in place of sociology post graduate in social sciences should be accommodated with the experience as mentioned in the ToR</p>	Agreed to
22	<p>The Consultant will be reporting to PMU of the NCRMP at NDMA. This is an ongoing task, in which the status of the project shall be communicated to PMU through weekly/monthly brief progress report (10-15 pages) by the Consultant and specific meetings as needed with the Consultant</p>	<p>The Consultant based on the prior experience suggests to keep bi-monthly meeting in form of presentation rather than 15days as this will consume lots of time which may affect the timeline of other deliverables.</p> <p>From the experience it is understood that, if any task or component is completed in 2 months, it is not necessary that, in 15 days 25% of that component would be completed and more focus need to be paid on preparing such interim reports rather than focusing on actual objectives.</p>	<p>Existing Clause 16 (pg. 73) be read as 'The Consultant will be reporting to PMU of the NCRMP at NDMA. This is an ongoing task, in which the status of the project shall be communicated to PMU through fortnightly/monthly brief progress report (10-15 pages) by the Consultant and specific meetings as needed with the Consultant.'</p>
23	Financial Proposal	<p>Expenses related to TA/DA of the team are to be budgeted by the consultant in the financial proposal or this would be reimbursed on the actual?</p>	<p>Expenses related to TA/DA of the team are to be budgeted by the consultant in the financial proposal as it is a lump sum contract.</p>

Description of Services

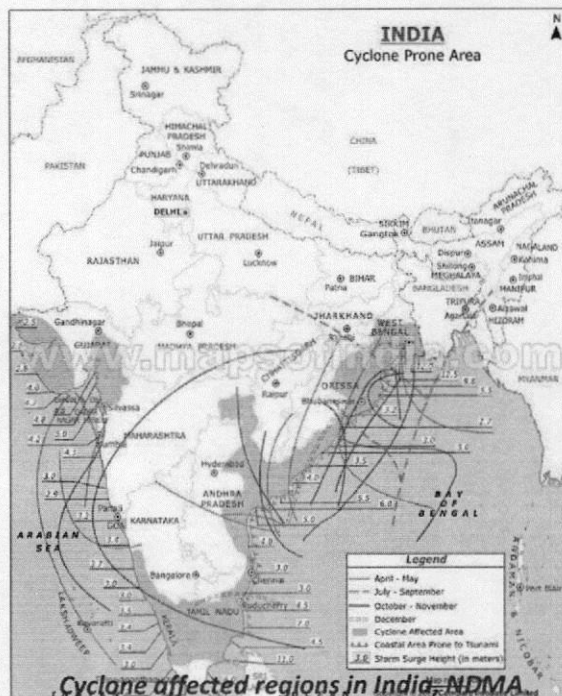
Technical Approach & Methodology

1. Background

Fierce whirling winds of destruction, otherwise known as cyclones (also known as hurricanes and typhoons) are known to claim a higher share of deaths and devastation all across the world. They have been responsible for about 19 million deaths worldwide over the last centuries, almost 10,000 people getting killed each year due to it. The impact from cyclones usually extends over wide areas, along with strong winds and heavy rains. High speed winds, also known as squalls, torrential rain and storm surges, associated with cyclones tend to damage the coastal areas the most.

Cyclone Rampages in India

The Indian subcontinent is one of the worst cyclone affected areas of the world, with about 6% share of the occurrence worldwide. Indian coasts are highly vulnerable to tropical cyclones and the consequent recurrent loss of life and property. Tropical cyclones in India are an annual affair, with almost 92 severe storms occurring in the eastern coast out of a total 262, between the year 1891 and 1990, and several more in the years since.⁷ Analyzed data of period 1980- 2000 reflects that on an average, 370 million people are exposed to this natural



⁷ Cyclones, Media & Public Awareness, <http://www.ndma.gov.in/en/media-public-awareness/disaster/natural-disaster/cyclones.html>

disaster annually in India.⁸ The recent most severe cyclonic events include in 2010, when two cyclones- Laila & Jal consecutively hit south-eastern India, costing the lives of hundreds of fishermen and damages exceeding 100 million USD. In 2013, due to cyclone Phailin a total of 134,426 people had to be evacuated from coastal regions of Andhra Pradesh and Odisha. Cyclone Hudhud caused extensive damage to the city of Visakhapatnam and the neighboring districts of Vizianagaram and Srikakulam of Andhra Pradesh in October 2014, as the damages were estimated to be crossing over to 2 billion USD.

As cyclone Vardah leashed its high speed wind in the east coast of the country on December 12th, 2016, India demonstrated that its cyclone preparedness has reached its mark. Earlier, in the same year NDMA released India's first National Disaster Management Plan, which aimed to make the country resilient to disaster and reduce loss of lives, by strengthening risk-governance, investing in disaster risk reduction through structural and non- structural measures, early warnings and disaster preparedness. In an attempt to further strengthen these measures, NDMA has introduced its project on Cyclone Risk Mitigation.

Project Overview:

With a view to address the cyclone risks in the country, the government has introduced National Cyclone Risk Mitigation Project (NCRMP), to undertake suitable measures to mitigate its adverse repercussions across the coastal states and UT. National Disaster Management Authority is the nodal implementing agency of this World Bank aided project. The project has identified 13 cyclone prone states and UTs with varying degrees of vulnerability:

- **Category I: Higher vulnerability States** i.e. Andhra Pradesh, Gujarat, Odisha, Tamil Nadu and West Bengal.
- **Category II: Lower vulnerability States** i.e. Maharashtra, Karnataka, Kerala, Goa, Pondicherry, Lakshadweep, Daman and Diu, Andaman and Nicobar Islands.

Phase I of the project, which covered the coastal areas of Andhra Pradesh and Odisha was approved by the Government of India in January, 2011 and is approaching its completion in March 2018. Phase II of the project, covering six states- Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal was approved in July, 2015, has to be completed by March 2020.

⁸ Cyclones & their Impact in India, National Cyclone Risk Management Project (NCRMP), http://ncrmp.gov.in/?page_id=6420

Considering the key objectives of the project- ***Reductions in cyclone vulnerability*** by creating appropriate infrastructure, ***strengthening of cyclone warning systems*** by enabling quick dissemination of warning and ***enhancing capacity and capability of local communities to response disasters***, the main components of projects are as follows:

COMPONENT A: Early Warning Dissemination System: Last Mile Connectivity for the dissemination of cyclone warnings

COMPONENT B: Construction of physical infrastructure- cyclone shelters, embankments, roads, bridges etc. for risk mitigation purposes.


COMPONENT C: Technical assistance for capacity building on disaster risk management for mainstreaming of DRR policies, programmes

COMPONENT D: Project Management & Monitoring

2. Rationale

The Project Management Unit of NCRMP in the National Disaster Management Authority (NDMA) has invited proposal for benefit monitoring and evaluation study at midterm and end term of the Project. The core purpose of this study will be to evaluate the outcomes/ results of project interventions in order to keep a track of its achievements against the targets. The evaluation study will help assess the effectiveness of the project components and strategies, midway of the study, thereby carving out insights for remodeling of field level strategies or undertaking any mid-course corrections if required. The proposed study will seek to generate quantitative and qualitative information specific to the four project components mentioned in the preceding section and will enable a 'before-after/ progress monitoring' assessment of the same.

The midline and endline study will specifically serve the following purposes. Firstly, they will help identify the extent to which the objectives of the projects have been achieved; and secondly, these evaluations will identify, document and analyze the present level of preparedness and capacity of target states for risk mitigation and management, in case of occurrence of cyclones. The insights generated from the study will guide the officials, agencies associated with the project to shape up the strategies and activities accordingly.



3. Objectives of the Assignment:

The proposed benefit monitoring and evaluation study aims at providing a well- researched and documented evidence of outcomes/ results of the project monitoring. On one hand, the study aims to generate the quantitative estimates regarding the socio-economic, health & environmental benefits accruing to the coastal communities as a result of project interventions, the status of warning systems, and risk mitigation infrastructure that is available for use in case of occurrence of cyclones or any climatic hazards, capacities of concerned stakeholders to adequately respond to such situations and sustainability of the project interventions. On the other hand, it will carve out qualitative information about these aspects based on observation, in- depth interviews, literature review, etc. In view of the overarching objective stated above, the main objectives of this assignment are as follows:

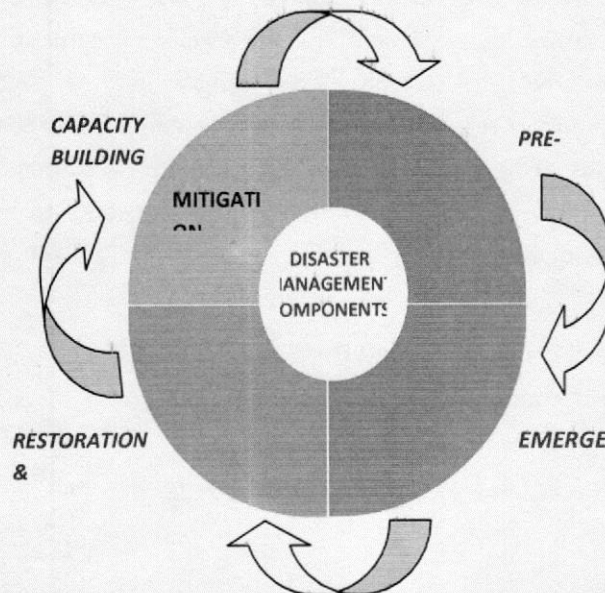
- To update the baseline data of phase II of the project & conduct pilot survey
- To undertake the benefit monitoring & evaluation at mid- term of NCRMP by December, 2018
- To conduct the end- term evaluation by January/ February 2020.

4. Conceptual Framework:

This section gives an overview of the study approach in terms of areas of enquiry and the information needs related to the project components to be assessed. The proposed study will intend to explore the various ways in which the project supports the communities in the coastal areas of the identified states. All the endeavours will be oriented towards assessing the perceived understanding of reduced vulnerability of the coastal area communities, the extent to which it has helped promote capacity building, and finally for assessing the extent of sustainability of the project.

In view of the aforementioned research objectives, the study will adopt a multi-faceted approach studying various disaster/ emergency management components. In order to develop a holistic perspective of the midline, and later on, endline condition, to measure the project impacts, the study will focus on four key areas of enquiry related to disaster preparedness – preparation, response, recovery and mitigation. The examination of various relevant elements under these aspects would ultimately help in drawing out suitable recommendations and suggestions for improving the strategies undertaken under this

project until now. The diagram ahead outlines the research framework proposed to be adopted for the study.



- **Mitigation:** refers to preventing disasters from taking place or lessen the impact of the unavoidable ones. Hence, mitigation should occur before emergency takes place. The prime objective of mitigation is to introduce strategies that would eventually minimize the effect of the emergency.
- **Preparedness:** refers to making plans and making the necessary equipment and supplies readily available prior to the occurrence of the natural disaster. Preparedness of a natural disaster includes enabling the early warning system and as well as knowing and understanding of the warning signs, preparation of the evacuation plans, building shelters, posting emergency numbers, stocking supplies of the necessary items. This stage basically includes all the necessary steps to be taken, **before the emergency occurs**.
- **Response:** refers to the immediate action upon occurrence of the disaster, by protecting oneself and others from further harm. In this stage, one can immediately evacuate from the affected areas based on the plans made, seeking shelters in previously built camps. This stage commences by putting all the preparedness plans into action and takes place **during the emergency**.
- **Recovery:** The recovery, rehabilitation and reconstruction phase is a critical opportunity to build back better, including through integrating disaster risk reduction into development measures. Making repairs and filing insurance are some of the recovery measure that needs to be undertaken after the occurrence of the disaster.

The framework mentioned is carved out from the four priority components of the Sendai Framework, which is supported by the United Nations as well. These four components were also used to build the National Disaster Management Plan of 2016 by NDMA. The conceptual framework will be valuable in guiding us through all the phases of the study.

5. Research Design:

As reflected in the preceding sections, the core objective of this study is to update baseline estimates and generate midline and endline estimates that can enable benefit monitoring and evaluation of the impact of programme interventions at later stages of the project. To measure project impact, and establish the causality of intervention with greater confidence it is required to adopt a research design that compares the households over time.

It is suggested to use '*pre and post survey evaluation design*' to enable impact assessment under this study. It will rely on baseline data collected before the project is implemented and follow-up data collected after the project is fully operational for a sufficient period of time to generate impact or after the completion of the project, to develop a "*before/after*" comparison.

Further, in order to enquire into the project dimensions outlined in the conceptual framework, it is proposed to use a **mixed methods** approach, whereby both **quantitative** and **qualitative** research methods would be applied for generating desired information. It is proposed to use structured questionnaire for survey of households to generate quantitative estimates for key community related project indicators. To be able to support the quantitative estimates with pragmatic insights, it is proposed to undertake a semi-structured village survey, focus group discussions and develop case studies to capture relevant qualitative information for the project. In order to understand the perspective of other concerned stakeholders of the project, it is proposed to conduct in-depth interviews from them generating qualitative insights about the effectiveness of project, challenges & issues that need to be addressed, and carving out ideas & suggestions for way forward.

6. Scope of Work:

The midline and endline assessment will be carried out across six coastal states- Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal. NDMA had previously classified Gujarat and West Bengal as high vulnerable states and Maharashtra, Goa, Kerala and Karnataka as low vulnerable states.

The scope of work including key work components, proposed coverage under each component, target respondents to be covered and proposed method of data collection has been specified in the matrix hereunder –

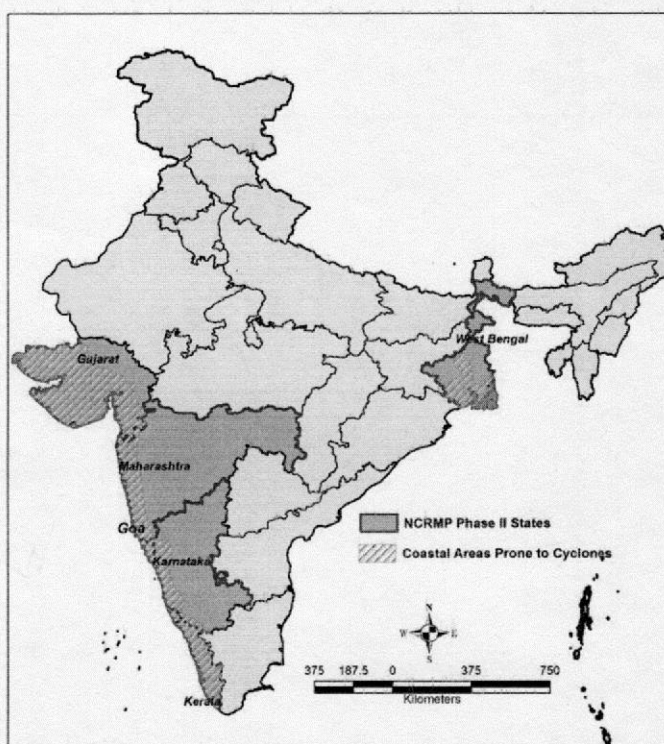
Key Work Components	Type of Information collected	Target respondents	Method of Data Collection
Project Objectives, strategies proposed	<ul style="list-style-type: none">Understanding the project objectives and initiatives to be taken up under itStrategies planned as per the objectivesTo what extent the strategies have been implementedProbable limitations and constraints expected out of the projectMitigating measures for the sameObtaining implementation progress reports	NDMA Officials/ NCRMP	In-depth Interview/ Semi-structured Interviews / Obtaining Project Documents
State Level Impact of cyclones, mitigation measures, strategies adopted under NCRMP	<ul style="list-style-type: none">Roles and responsibilities of the State Disaster Management AuthoritiesState level impact of the recent most cyclones to the coastal areas/ communitiesStrategies adopted/ preparedness for future calamity under NCRMP	Officials State level Disaster Management Authorities/ Line Departments	In-depth Interview/ Semi-structured Interviews
Cyclone related studies from the	<ul style="list-style-type: none">Insight regarding NCRMP- strategies/ performanceObtaining cyclone related studies/ data undertaken and collected in the	ORGI/ National Institute for Disaster Management/	In-depth Interview/ Semi-structured

institutions	recent years	Integrated data resource Network Maintained by Ministry of Home Affairs/ Institutes or Organizations undertaking related research	Interviews / obtaining relevant database/ documents
Role of the NGOs and CBOs in terms of mitigation and recovery from cyclones	<ul style="list-style-type: none"> • Roles undertaken by them during the phases of disaster management • Capacity at which they get involve/ in participate with the state government • Investment of funds for the recovery phase • Insight pertaining to the strategies and performance of the NCRMP 	NGO & CBO officials	In-depth Interview/ Semi-structured Interviews / obtaining documents
Assessment of project outcomes at village level	<ul style="list-style-type: none"> • Challenges/ difficulties faced by the villages during cyclones • Measures undertaken to overcome the impact of the cyclones • Overall benefits received and expected from the project- increasing awareness, road communication network etc. • Capacity Building sessions held to prepare for the response and recovery phases 	Village survey with Officials at Gram Panchayat and local bodies as respondents	Semi-structured Survey

Impact Assessment of NCRMP at beneficiary levels	<ul style="list-style-type: none"> • Difficulties faced by them during the last cyclones • Benefits received by them under NCRMP • Understanding of the warning dissemination system and emergency response prior and post occurrence of the cyclone • Households having protective embankments in front of their land 	Survey of Beneficiary Households	Structured Interview- 10800 (5400 in each of the 2 surveys) 39 FGDs (1 per district) in each of the 2 surveys 270 Observation checklists (1 per village) in each of the 2 surveys
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7. Proposed Logical Framework:

The sections ahead present the key components to be studied for benefit monitoring and evaluation study for NCRMP Phase II under each of the dimensions specified in the conceptual framework.



DOMAINS	INDICATORS
MITIGATION	<ul style="list-style-type: none"> • Preparation of capacity building plan and infrastructure • Hazard analysis and risk assessment prior to the occurrence of cyclone • Need assessment to understand the requirement of infrastructure and capacity building required after occurrence of cyclone • Risk mapping capacity and vulnerability analysis • Dissemination and communication: Information management, communications, education, research, training and public awareness. • Knowledge, Skills, Competencies, Motivation and Ability/ capacity • Organization structure and design, management values, performance standards and core competences • Training and Capacity Building of household members in EWDS • Training regarding disaster management skills and warning and Trained in Early Warning and Evacuation System • Participation in any mock drill for evacuation/ disaster management
PREPARATION	<ul style="list-style-type: none"> • Availability of cyclone mitigation infrastructure • Installation of early warning dissemination system & its efficiency • Construction of new shelter facilities • Preparation and availability of the disaster evacuation plan • Awareness and educating the local people regarding the warning signs • Supply of water for drinking purposes and sanitation • Food - at least a three-day supply of non-perishable food • Availability of first aid kit with all the necessary medicines • Upgradation of the existing embankments • Village connectivity with road/ connectivity through bridge
RESPONSE	<ul style="list-style-type: none"> • Received warning in last occurred cyclone in time and how much in advance • Immediate evacuation post occurrence of the last cyclone • Reasons for not evacuating- if applicable • If the saline embankments constructed under NCRMP has been useful in the last occurred cyclone

	<ul style="list-style-type: none"> Duration to return home post Cyclone
RECOVERY	<ul style="list-style-type: none"> Post-disaster recovery has to attend extensive rehabilitation and reconstruction needs while the resources are far short. New technologies to be applied in disaster recovery wherever possible to phase out old technology Coordination, monitoring, evaluation during the recovery phase

8. Sampling Approach:

The sampling plan for each of the aforementioned work components would vary based on the conditions specified in the Terms of References. The sections ahead outline the proposed coverage under each component and the approach for sample selection.

Sample Size:

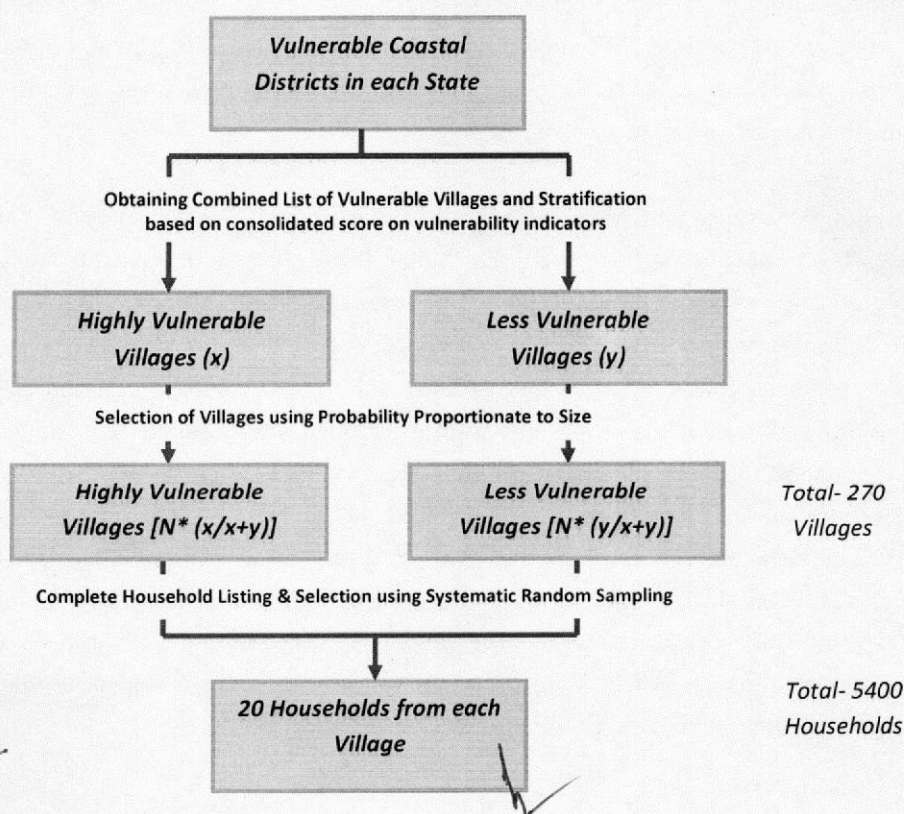
As specified in the ToR, the proposed midline and endline evaluation study will be carried out based on the mandated sample size that has been pre-decided by the PMU based on the proposed research design. It is proposed to cover the specified number of sample villages and households as per the RFP, which is reflected in the table ahead –

States	Coastal Districts	No. of Villages	HHs per village	Total no of HHs
A. Stage I (Mid-term Evaluation of Phase-II): 6 Surveys				
Goa	2	20	20	400
Gujarat	16	100	20	2000
Karnataka	3	20	20	400
Kerala	9	30	20	600
Maharashtra	6	50	20	1000
West Bengal	3	50	20	1000
Total (A)				5400
B. Stage II (End-term Evaluation of Phase-II): 6 Surveys				
Goa	2	20	20	400
Gujarat	16	100	20	2000
Karnataka	3	20	20	400
Kerala	9	30	20	600
Maharashtra	6	50	20	1000
West Bengal	3	50	20	1000
Total (B)				5400
(A+B) i.e., 12 surveys				10800 HHs

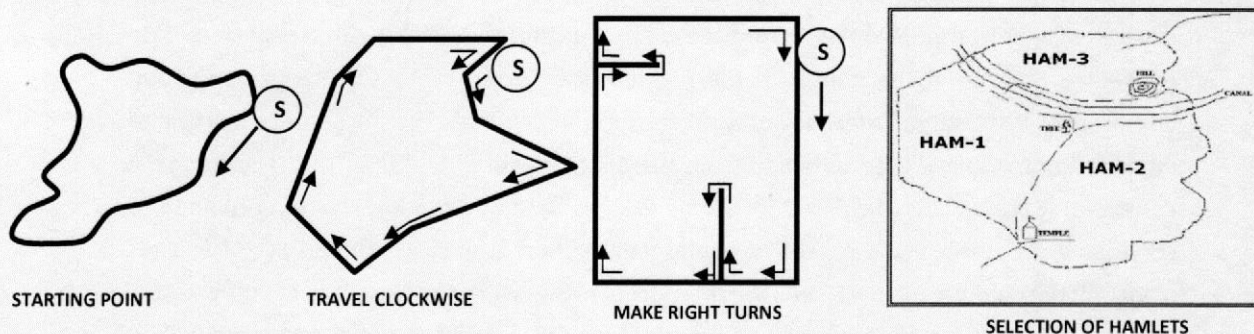
Sampling Plan:

The various stages of sampling along with the approach to be adopted for selection of desired number of units at each stage has been elaborated in the sections ahead:

Sampling of the villages: The first stage of the sampling plan is to obtain the list of vulnerable coastal districts from each state from NDMA authorities. Once the districts are identified, the next step would be to select villages from each of those districts. A list of coastal villages will be obtained from the district authorities, along with respective data related to severity of the impact of the previously occurred cyclones, size of population and present institutional mechanism for disaster management. The necessary records and information for this will be obtained from the district level officials/ DDMA. Thereafter, a combined score will be calculated for all the villages based on the information obtained to serve as a measure of the extent of vulnerability. Thereafter, a combined list of villages from all the sample districts will be prepared along with the respective vulnerability scores. These villages will then be arranged in descending order of their scores and will be classified into two categories based on a cut-off score which shall be decided in consultation with PMU officials. The category having scores above the cut-off scores will comprise of high vulnerability villages, and that below the cut-off score will constitute low vulnerability villages. After this classification, the desired number of villages to be selected from the state as per the RFP conditions will be distributed across these two categories in proportion to the size of that group/ that is, the number of villages falling in the specific categories. The requisite number of villages to be selected thus worked out will be sampled using probability proportionate to size method.



Sampling of the Hamlets: On reaching the sampled village, it is proposed that the field officials establish contact with key knowledgeable persons from village- gram sevaks, PRI members etc. With the help of these people, the field staffs will undertake a quick mapping of the village to identify its boundary and identify the hamlets within it along with an estimate of the total number of households in each.



If the village has more than 250 households, they will be segmented into clusters of roughly 100-125 households each using natural boundaries in the village. Thereafter, 2 segments will be randomly selected for the survey.

Sampling of the Households: The terms of reference clearly indicates that 20 households have to be covered from each of the village. Each village will be subjected to complete household listing. Thereafter, 20 households will be sampled from each village using systematic random sampling approach. For deciding the random start point in an unbiased manner, the investigators will be instructed to communicate the total number of households listed in the village to their respective supervisor, who will then allocate them a random start number using random number table.

The households thus sampled will be subjected to questionnaire survey to elicit required community level information from them. Further, it is proposed to administer one semi-structured questionnaire per village to understand the village level status in terms of their exposure to programme interventions, preparedness for cyclone risk mitigation, and the issues and challenges that need to be addressed to help them be better prepared for such calamities. The respondents for village level survey will be a group of knowledgeable persons including the PRI members, members of relevant committees, health and education functionaries, etc. Besides the household and village survey, it is also proposed that 1 FGD be held in each of the study districts during both midline and endline surveys to gather qualitative insights. In addition to this, the infrastructure works undertaken within the purview of this project located in the respective villages will be surveyed using structured observation checklists. Wherever required, photographs will also be taken to generate documentary evidence for the PMU/ NDMA.

9. Detailed Data Analysis Plan:

The proposed data analysis plan for the benefit monitoring and evaluation study would primarily focus on generating reliable midline and endline estimates for various key performance indicators enlisted in the RFP document. Besides these, the survey will also gather additional indicators to inform policy makers about the status of respective study areas with reference to the four parameters specified in the conceptual framework proposed for the study. The quantitative data gathered during the study would be subjected to the following statistical analysis techniques to generate desired information about the prevailing status of the effectiveness of the NCRMP strategies.

The *analysis of quantitative data will be done using SPSS package*. Further, the quantitative data gathered during the survey would be subjected to the following statistical analysis techniques to generate desired information about the achievements and effectiveness of NCRMP strategies..

Descriptive statistics will be calculated for **range, mean, and standard deviation** of the scores for each variable obtained for all the participants. **Percentages and values** for various estimates desired under the study would also be calculated using the specified formulae for each. **Sub- group analysis** will be conducted in terms of the households located immediately next to the embankments and farther away from it. **Cross tabulations and correlations matrix** will be drawn for depicting any specific patterns in the data with regard to the subgroup. **Cost- Benefit analysis** will be carried out for both midline and endline report in order to assess the economic returns of both the tangible and intangible benefits of the interventions under NCRMP.

As regards the **qualitative information** gathered through interview with key functionaries and observations, the first step would be verbatim transcription of all qualitative information collected. The same will then be *analyzed in a systematic and methodological manner using atlas-ti software*. The transcribed information will be scrutinized for its primary as well as latent content. The following procedure is proposed to be adopted for the content analysis of all the information gathered—

Free Listing: For synthesizing the qualitative information, available responses to a particular question will be listed to obtain the range of responses for all issues addressed in the qualitative exercises. The responses that are considered irrelevant under a specific question will be moved under the appropriate question. During this process, the important statements or quotable quotes with their reference will be extracted verbatim for use in the report as reference material.

Coding: In the final screening, for every open-ended question, responses will be coded according to the domains. Some responses may be placed under more than one domain as a range of views might be stated in a single sentence. After careful scrutiny, the responses found to be completely irrelevant will be discarded.

Summarizing: Similar information sought from different stakeholders will be triangulated to arrive at a conclusion with greater degree of accuracy as also from the viewpoint of reliability and validity. Analysis will be done according to the study sites to check for 'between sites consistency' and other differences, if any. The results will then be summarized for each of the issues.

Presented above are some of the data analysis methods that we propose to use under this study and the outcomes that we can expect to achieve. These methods will help provide an in-depth insight into the status of understanding and assessing to what extent the strategies undertaken under NCRMP has been successful and challenges and constraints faced by them.



Work Plan

1. Proposed Schedule of Activities:

The terms of reference mentions the survey of the midline and endline of NCRMP will be carried out over the period of 2 years. Description of activities to be carried out in each phase, their durations, contents and interrelations are stated ahead. The data collection & analysis phase will remain identical for both the midline and endline.

Phase-1: Preparatory Phase: After the award of the assignment, the first week would be spent in making preparatory arrangements for the survey. The core team members would undertake consultative discussion with NDMA and the PMU of NCRMP to understand their mutual expectations. They will procure the baseline report/ data maintained by the PMU and other relevant qualitative information about the project area which will help firm up the baseline estimates for key project performance indicators. Other relevant literature like project design and implementation framework, programme documents, and any internal monitoring reports or database maintained by the client will be sought to develop a thorough understanding of the study requirements. Under the guidance of PMU, the teams will also identify the target districts and villages to be covered from each state, and obtain relevant village level data that will help ascertain the extent of vulnerability of these villages from the respective district offices.

The team members would then thoroughly review the literature and information obtained to gain a better understanding of the project. This exercise will help conceptualize the study design, including firming up the sampling approach, and developing draft study instruments for data collection. A detailed inception report describing the proposed approach and methodology for carrying out the study will be prepared and shared with PMU officials to seek their feedback and inputs to finalize the study design.

Phase-2: Set up/ update the Baseline Data: One of the key tasks to be undertaken within the purview of this assignment is to set up/update the baseline estimates for key performance indicators. The review of relevant literature suggested in the preceding phase will be useful in culling out necessary quantitative/ qualitative data/ estimates/ information which can serve as a benchmark against which project achievements may be measured during the midline and endline stages. Thorough review of project implementation framework would yield possible key performance outcome and impact indicators, and thereafter the available

data will be scrutinize to search if there is any data/ information available for the same which can serve as a baseline estimate. This exercise will result into a baseline data report covering clear quantitative and qualitative assessment of various key performance indicators of phase-ii of the project. This constitutes the second requisite deliverable under this assignment.

Phase-3: Finalization of Study Plan and Survey Instruments: The team members under the leadership of Team Leader will review the draft research instruments shared along with inception report in view of the baseline estimates firmed up in the preceding phase. It is also expected that the team will receive some inputs and feedback from the PMU on the draft tools shared with them. The team will revisit each of the research instruments and make necessary additions or modifications based on the client feedback and the available baseline estimates for key project outcome indicators to finalize the instruments. These will be shared with the concerned PMU officials to seek their approval on the same. The approved research instruments which were developed in English will then be translated to local languages for each of the six study states to facilitate ease of administering the survey in the field. The local language survey instruments will be back translated into English to ensure construct validity and consistency between the formats. Detailed guidelines for monitoring will also be developed for survey quality assurance along with the field protocols and survey manual.

During this phase, the team members would also finalize the list of affected districts and villages in each of the study states with the guidance from PMU based on information collected in first phase. Relevant state and district level stakeholders will also be identified in consultation with PMU/ SDMU officials. The list of affected villages, along with required data to measure their extent of vulnerability will be used to draw sample for the study based on the sampling plan finalized in consultation with PMU. The approved plan will then form as a base to draw the sample which will further help draw out detailed state level action and field movement plans which will be duly shared with the client.

Phase 4: Training of Master Trainers, and Pilot Testing of Research Tools: Once the tools are finalized and translated into local languages, the respective Survey Team Leaders for each of the 5 states along with one senior field officer from each state will be trained centrally at the agency headquarters. They will serve as master trainers for training the teams in their respective states in local language. A 3-day training of these master trainers (TOT) will be organized where they will be offered orientation about the programme, the research objectives and study design, along with a detailed training on the study instruments

formulated. It will be apt to mention here that all the survey team leaders that we propose to deploy are well-versed in English as well as the local language of the respective states. So a combined TOT will be organized in English and then they can go back to their states to undertake the pilot testing in respective local languages. It must also be highlighted here that all the survey team leaders whom we propose to deploy on this assignment have a significant field experience and thus are fully adept at performing the testing of instruments and offering expert advice to improve the flow of questions and the correct way of asking them to be able to elicit unbiased and correct responses from the respective target audience.

After training of master trainers, the respective survey team leaders and senior field officers will go back to their own states and will undertake the pilot testing of the tools. As suggested in the RFP, in each state, 2 coastal cyclone prone villages will be selected. In these villages, the team will administer one village survey questionnaire and 5 households survey questionnaires. In addition, they will also administer 1 observation checklist for each type of infrastructure created under the project. Thus, a total of 2 village questionnaires and 10 household questionnaires will be surveyed in each state. The insights generated during the survey will be shared by the team in the form of question-wise feedback. The core team at the agency questionnaire will review the feedback and filled in questionnaire from all the six states and will revise to questionnaire by addressing the issues identified and standardizing it for all the states to be able to collect comparable data across 6 study states.

Phase 5: Development of Software for Data Collection using CAPI based method: The finalized tools will then be used to develop software to enable conduct of computer-aided personal interviews (CAPI). It is planned to administer the household survey, village survey and observation checklists using CAPI devices, that is, tablets with customized software application. Undertaking a CAPI based survey has specific advantages which can be a value addition for this survey. We can capture the GPS readings for the locations covered, take photographs of the structures or persons or data examined during the survey. These will serve as additional evidence generated from the study, which can be useful for the evaluation at a later stage and will also be useful for the programme officials to track the specific location/ structure for internal monitoring.

Having been involved in multiple large scale surveys, the organization has in its possession about 250 Mini laptops and over 360 tablet devices of its own to conduct the CAPI based surveys. Considering the requirements of the proposed survey, and the advantages of using android based application it is proposed to use tablet devices for data collection in the

present survey. The specifications of the tablet devices available with the organization are as follows -


Model name : Samsung Galaxy Tab 4
Processor : 1.2GHz Quad Core
Memory : RAM Size-1.5 GB; ROM-8GB; External memory support-Up to 32 GB
Average Age : 1.5 years

It will be apt to highlight here that the organization has undertaken multiple large scale surveys across the country which involved use of CAPI devices. This has not only helped the organization develop a better understanding of CAPI enabled systems but has also helped gather a pool of research investigators and field supervisors who have become adept at using such methods of data collection. It is proposed to utilize the same pool of field staff that is adequately experienced to handle CAPI based interviewing.

Further, the agency has gained expertise in using as well as designing software customized to survey needs. The agency has majorly worked on two types of software platforms - CS-Pro and Survey CTO, and has qualified staff that can develop both types of software for data collection as suited to the survey needs. The final questionnaire in 6 different languages will be converted into desired CAPI format. Whether we choose to develop the data collection software on CS-Pro or Survey CTO, there are certain key design features that shall be built into the program. Some *of such unique features that we propose to develop in our software have been presented in Annexure A of this document.*

Phase-6: Recruitment, training & Deployment of the Field Staff: As for the field staff, it would be apt to mention that AMS already has a large pool of culturally conversant research investigators and field supervisors who have been associated on project-to-project basis in these states on a regular basis. They are fluent in local languages and have significant field experience of similar socio-economic surveys. We plan to utilize the same pool for this study. However, any shortfall in consideration with the socio-cultural requirements of the locations would be addressed by employing more candidates through fresh recruitments. The investigators and supervisors who are conversant in the local colloquial languages and area aware of local customs & traditions shall be selected for undertaking the survey.

Training of field staff forms another important component of this phase. It is proposed that the Survey team leaders and senior field officers from the respective states who were



trained in the previous TOT will be involved in conducting the training for field investigators. A 5-day training will be organized for the field staff in respective study states. A detailed training methodology and content has been presented as **Section IV** of this technical proposal.

The **field supervisors** to be deployed in each of the states will be responsible for conducting interviews with other stakeholders and organizing FGDs as per the study plan besides their routine responsibility of data quality assurance. They will be trained separately in a **3-day** training session on the information requirements of the qualitative study instruments and the protocol for organizing the same.

Using a mix of lecture-based sessions cum experiential exercises would help equip the field staff with all the requisite knowledge and skills to collect the required data. During this phase, the senior field coordinators would study the sampled areas, contact some local knowledgeable persons and gather secondary data to conceptualize a field deployment plan. The Survey team leaders in consultation with other team Members will formulate a field deployment plan along with route plans & field movement plans that will help minimize the time taken in the survey. The details regarding field teams deployed, field movement plans and the training conducted will be shared with the PMU and NDMA.

Phase – 7: Field Survey and Data Collection: After training, the field staff would be allotted the zones they need to cover within a period of 6 weeks. The survey team leaders will be responsible for their own respective states and would take their teams in the respective areas and guide them according to the field deployment plan. This phase will include the conduct of following activities –

- The research investigators will collect information from the households in coastal villages using the questionnaire survey developed for the purpose. They are also required to observe the village level infrastructure.
- The supervisor will conduct surprise visits, undertake complete checking of all formats at the end of the days, and surprise checks and back check of at least 10% of all filled in formats randomly.
- The field supervisors would also conduct Focus group discussions / interviews with other stakeholders and key functionaries within the village.

The state coordinators will be responsible for field investigators and supervisors assigned to their respective states.

The organization will deploy RIs in teams of 2 each for the purpose of household listing and survey. On reaching the village, the RIs will first establish contact with some local knowledgeable persons to identify the boundary of the village and create a rough layout map of the same along with seeking an estimation of the total number of households, in order to create segments if required. As explained in the preceding section, if the total number of households exceed 250, they will conduct segmentation to create roughly equal segments of about 100-125 households each using the natural boundaries of the village. The RIs will then communicate the summary of listing information to their respective Supervisors which will include, the total number of households in the sampled village and number of clusters created. The Supervisor will allot a random number to them from the random number table provided to them. The RIs will use the random number allotted to them to sample the cluster for survey. The selected cluster will then be subjected to complete listing starting from north east corner and using right hand rule. The purpose of household listing will be to create a sampling frame for selection of households for the survey. It is estimated that the team of 2 RIs will take 3 days to complete the mapping and listing exercise in a village.

The data collected during the household listing will again be summarized and communicated to the respective supervisors which will include total number of households listed. The Supervisor will then allocate a random number which will form the starting point for sample selection. The RIs will then draw a sample of households by adding the sample interval to the random number for which they will be trained. In view of the expected length of the household survey instrument, each face-to-face interview shall require about 30-45 minutes. Considering these households will be spread throughout the village and they will have seek a suitable time for conducting the interview, each RI shall be able to complete about 5 interviews per day. Considering that each RI team of 2 will have to undertake interviews with 20 households per village, it is estimated that a time-span of 2 RI team days will be needed for completion of survey in 1 PSU.

For the purpose of back checking to ensure the veracity of data, and ensuring quality and timely completion of field work, it is proposed to deploy **Field Supervisors**. The Field Supervisors shall be responsible for guiding them in the sampling procedure, overseeing their work and offer them necessary supportive supervision. They will perform the mandated spot checks and back check at least 5% of the data collected on a regular basis. The results of back checking will be duly communicated to the core team, along with offering necessary instructions to the field staff and taking actions against them if required.



Phase-8: Data Consolidation, Entry, Coding, and Consistency Checking: One of the most crucial and important task in a large scale survey is the management of database on a regular basis, consolidating it at one place, keeping necessary backups and converting them into desired formats for further use.

Once the investigator completes a household survey s/he will submit it to their respective supervisors who will thoroughly review the entire questionnaire to check for accuracy and completeness. The Supervisors shall anyways be doing surprise checks in the field to check the quality of interviewing of each of the investigators, but at the end of each days' work he will thoroughly check each and every interview format filled in by his team members.

The software will have provision for the Supervisor to be able to see the data filled by his respective team members and make any edits if desired. Once he is satisfied that the data is complete and correct he will have the rights to upload it on the centralized server. In case of CS-pro based application we will make provision for cloud based server, while in Survey CTO based application the Supervisors' tablets shall be synced with the Survey CTO account and they will have the rights to upload the data in the same. It must be reiterated here that the data can be collected in offline mode considering poor network connectivity in rural areas. But once the data collection is complete, it can be transferred to the centralized server by connecting to the internet as soon as the team reaches an area with connectivity. Only the supervisor shall have the rights to transfer the data to the server. As soon as he connects to the internet, his device will automatically be synced to the Survey CTO account, and then he can transfer the checked and verified data using simple steps.

As regards the qualitative data collected through IDIs and FGDs, first a complete transcription will be done in english language. Thereafter, numeric codes will be allotted to the responses based on the themes emerging. The same will then be entered into Atlas-ti software for further processing and analysis.

The preparation of data sets will be commenced shortly after the initiation of field survey. The centralized data analysis team situated at the head office will work in coordination with each other. Consistency checks would be run on the data and the data will be cleaned to make it fit for generating reliable estimates. The team would also assign variable labels and value labels besides generating a code list of all the study variables. This cleaned data would be further utilized for next phase of the project.



Phase-9: Data Analysis & Generation of Draft Report: The Team Members will work under the guidance of the team leader to finalize the pertinent study findings. The quantitative data will be analysed using SPSS software, while the qualitative data will be analysed using Atlas-ti software application. They will study the location-wise tables and estimates developed by statistical analyst, apply further statistical & econometric analysis techniques on the data, and would interpret the results in collaboration with each other to generate the key findings for the study. The draft report for the midline and endline survey will be submitted to PMU of NCRMP and NDMA for their inputs. Cost Benefit analysis would be carried out under both midline and endline as a part of the analysis.

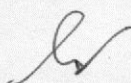
Phase-10: Preparation of Final Report & Presentation of Study Findings: The Team Members would prepare the final report by incorporating the suggestions and recommendations offered by PMU and NDMA officials on draft report. The finalized Midline and Endline Survey Report, along with a soft copy of cleaned data set will then be submitted to the client for finalization of the study.

2. Survey Quality Assurance:

The midline and endline survey carries a significant value as its data would serve as a strategic input for evaluating the impact of interventions on well-being of the households located in the coastal areas at a later stage. The results obtained from the midline and endline survey may also act as strategic insight for the NCRMP officials helping them in drawing future plan of action for implementing the planned interventions and upscaling them across the States at a later stage. Owing to its importance and relevance, the project carries the following challenges which would be overcome through systematic planning-

- a) Timely completion of the survey
- b) Collection and generation of quality data

Timely Completion of the Survey: To ensure timely data collection, the team leader would seek all the required state level database from concerned authorities well within the first week of signing the contract, to facilitate timely sampling and preparation of Field Deployment Plans. The Survey Implementation expert with assistance from and survey team leaders and field supervisors would get in touch with local personnel and would collect adequate secondary data about the location of various sampled villages. On the basis of such information he would draw detailed field movement plans in such a way, so as to ensure minimization of time & expense required for data collection.



Though sufficient and proportionate number of teams will be deployed, yet to reduce attrition related problems, at least 5% additional field staff will be recruited as a cushion to complete data collection on time and to overcome immediate attritions if any. It will be worth mentioning here that AMS employs the field staff, that is, the Research Investigators and Field Supervisors on a monthly honorarium basis and not on per-diem basis. Depending on their performance, they also carry bright chances to be absorbed in other projects undertaken by AMS. Moreover, various monetary and non-monetary benefits are also given to better performing staff to retain the best talent.

Collection and Generation of Quality Data: In order to provide accurate results, stringent quality checks will be conducted to maintain the quality of field data collection. The steps outlined hereunder would form the key part of ensuring quality data collection:

- For imparting quality training, senior AMS experts having adequate experience in field investigation will be deployed for the instructing the RIs and Field Supervisors. Moreover, after initial briefings, mock interviews will be conducted, so as to prepare the investigators for the field sessions.
- Further, as already mentioned, the survey team will be recruited from the local areas, so that there are no language and socio-cultural barriers.
- For ensuring the merit of field work, the team of research investigators will be provided supportive supervision by the core team of experts proposed to be deployed for the assignment as and when desired.
- During the data collection, independent back-check of the work of RIs will be done by the Field Supervisors on a daily basis. If errors are found in 2 per cent or more of the back-checked sample, survey of the entire sample unit will be done again.
- The Team Members with assistance from Field survey managers will concurrently check at least 10% of the survey formats for checking the completeness and consistency of formats filled by the investigators before sending them for data coding & entry.
- Additionally, the Survey Team Leaders would also undertake surprise visits and field inspections to ensure the authenticity of data.
- At the time of data coding, the coding team will scrutinize every completed questionnaire and provide the teams with relevant feedback. This would ensure that the information collected is correct, complete and comprehensible.
- Attempts shall be made to undertake range checks, structure checks, and consistency tests to eliminate errors based on field check tables generated.

For further assurance of data quality, specific protocols for risk mitigation, ensuring smooth CAPI operations, data security & safeguards, and quality assurance & monitoring have been presented in the sections hereunder-

Protocols for Risk Mitigation:

It is proposed to adopt a well thought out strategy to mitigate the risks associated with a survey of the present type & magnitude. The said strategy is detailed hereunder—

- ❖ Recruiting Extra Human Resources: Going by its own standard protocol, AMS recruits 10% extra human resources to deal with the eventuality of attrition of survey team members.
- ❖ Upkeep of Survey Instruments: It is proposed to earmark 10 percent additional CAPI devices as spare in order to meet the exigencies arising on account of faults in the machines. Over and above the availability of the spare tablet devices, it would be ensured that the organisation is in the knowledge of Repair / Service Centers available at the local level within each group and that the tablets can be repaired at these Centers as and when it is so required.
- ❖ Additionally, 2 Field IT Coordinators would be deployed in the field for ensuring smooth functioning of all IT related operations in the Field.
- ❖ Regular Charging of CAPI devices :It is proposed to provide powerbanks to the field staff for ensuring recharging of CAPI devices in case the battery runs out and there is no alternate arrangement for electricity in the villages being surveyed. It will be provided from the organisation's own pool besides ensuring to have arrangements for the regular charging of these power banks as well. Field Supervisors would be responsible for ensuring the charging of power banks aimed at uninterrupted operations of the CAPI devices.
- ❖ Regular Data Back-up:It is proposed to have a mechanism in place for data back-ups on a regular basis. The Field Supervisors would be entrusted with the job of taking these data backups on a reliable external storage device to meet any exigency arising out of the break down of the CAPI devices.

Protocol for Ensuring Smooth CAPI Field Operations

- ❖ A microfiber cloth would be provided to clean the tablet screen. This cloth has been specially formulated to attract and remove dust and oils, without damaging the screen. Besides this, specific instructions would be given to the enumerators on proper use



and care of the equipment during their training program. A list of do's don'ts would be provided to them related to maintenance.

- ❖ In order to take care of power failure, one power bank per team would be provided. In addition, each supervisor shall be provided a wi-fi dongle to ensure daily transfer for collected data to the central server.
- ❖ For uploading of data on a regular basis, field supervisor's CAPI would be synced with a common drop-box/ survey CTO account where everyday data would get synced whenever his/her tablet gets connected to internet.
- ❖ It is assumed, that all CAPI's will have automatic saving option, so that there will be less chance of loss of data in case of power failure.

Protocol for Data Security and Safeguards

- ❖ At the end of each day, data from the completed household questionnaires from the investigator's CAPI machine would be transferred to respective team Supervisor's CAPI machine. The Supervisor after properly verifying every completed questionnaire would transfer the data to the dropbox/ survey CTO account after every two days. The same day, the headquarter team shall sync the data from various locations to the common database. This process would ensure backup of data at all levels on a regular basis.
- ❖ Each tools for data collection through CAPI would start with special statements which would explain the purpose of the survey. They would assure a respondent that participation in the survey is completely voluntary and that it is their right to refuse to answer any questions or stop the interview at any point.
- ❖ The training manual of the interviewers would include special instructions regarding confidentiality of data. They would assure the respondent of the same and explain that the information collected would remain confidential, no individual names would be used for any purpose, and all information would be grouped together to write a report.
- ❖ The interviewers would never mention other interviews to the Supervisor in front of a respondent or any other person including other interviewers.
- ❖ Further, to maintain privacy, individual interview would be conducted privately and that all questions would be answered by the respondent. Extra effort would be made to gain privacy from the beginning which would allow the respondent to be more attentive.

Protocol for Data Quality Assurance and Monitoring at the Field Level

- ❖ Spot-check and back checks of some of the addresses selected for interviewing would be done by supervisor to be sure that the investigator interviewed the correct households and the correct respondents.
- ❖ Review of 100% questionnaire would be done by scrutinizers at the head office to be sure it is complete and consistent.
- ❖ Supervisor would observe some interviews to ensure that investigators are asking the questions in the right manner and recording the answers correctly.
- ❖ Supervisors would meet with the investigators on a daily basis to discuss performance and take backups of data collected in the day.

Additionally, it is proposed to improve data quality by increasing control over the interviewing process which can be done through control over the sequence of questions asked. It is assumed, that while using CAPI, the interviewer would not be able to move in between sections until all questions in a particular section have been filled up. In-built systems and checks would be built into the program to ensure that the file is partially saved at each stage, to avoid any data loss.

3. Deliverables and Reporting:

The key deliverables for the proposed midline and endline study would include –

- Inception Report comprising of detailed methodology of the study, sampling plan and draft survey instruments within 30 days of signing the contract
- Baseline data report covering clear quantitative and qualitative assessment of various key performance indicators of Phase-II within 2 months of signing the contract
- Pilot study report and the tools finalized based on pilot study findings within 4 months of signing the contract
- Final Mid-term Review Report by December, 2018
- Final End-term Review Report including quantitative and qualitative assessment of Key Performance indicators vis-a-vis baseline data and evaluation of Project Outcomes and suggestions for upstream activities to ensure sustainability and cost benefit analysis by January/ February 2020

Our project team would ensure timely delivery of the aforementioned deliverables maintaining utmost quality. The deliverables would be strictly in line with the project objectives and deliver all the requisite information demanded by NCRMP from time to time.



Organization & Staffing

Human Resource Deployment Plan

The human resources proposed to deploy for this study would be categorized along two cadres:

- **Core Team:** It will be advantageous for the study if the core team would comprise of key professional staff including Team Leader, Social Management Expert, Statistical Analyst, 5 Survey Team Leaders, Disaster Risk Management Expert and Analyst (Cost-benefit analysis expert).
- **Field Staff:** The field teams would comprise of Field Supervisors and Research Investigators. Besides, data entry staff will also be recruited as per requirement for facilitating data entry, coding and consistency checking.

The key area of expertise and roles & responsibilities of the Core Team have been expressed in the table ahead —

S. No.	Name / Proposed Position	Tasks Assigned
1	Team Leader (1 No.)	<ul style="list-style-type: none">• Overall coordination and supervision of the project.• Coordinating with NCRMP officials at all relevant stages of the project.• Formulating project implementation plan• Overseeing survey design and implementation.• Providing technical inputs to develop and finalize research instruments, field manuals and research protocols.• Overseeing conduct of pilot survey and finalizing survey instruments after pilot testing.• Identifying the indicators from the baseline study.• Overseeing recruitment and training of field staff.• Guiding Team in data cleaning, coding and consistency checking• Developing midline and endline report & analysis of social assessment with expert inputs from other Team

S. No.	Name / Proposed Position	Tasks Assigned
		Members.
2	Social Management Expert (1 No.)	<ul style="list-style-type: none"> • Formulating inception report for the study • Coordinating with other team members for developing research tools, pilot testing and finalizing research instruments. • Training the Master trainers (Survey Team Leaders and Field Officers) from respective states in the methods of data collection and data quality assurance • Overseeing conduct of pilot survey and finalizing survey instruments after pilot testing. • Coordinating with NCRMP for sharing the data analysis plan, statistical tools, and chapter plan for the report to be used for data interpretation and report writing. • Guiding Team in data cleaning, coding and consistency checking • Collaborating with Team leader for developing midline and endline report & analysis of social assessment with expert inputs from other Team Members.
3	Statistical Analyst (1 No.)	<ul style="list-style-type: none"> • Finalizing sampling Plan in consultation with Team Leader and PMU officials. • Drawing sample and setting systems for calculation of sample weights for generating desired statistical estimates. • Oversee development of CAPI based software for data collection and output format to enable easier processing at a later stage. • Overseeing development of data entry, coding and consistency checking systems for data updating and consolidating.

S. No.	Name / Proposed Position	Tasks Assigned
		<ul style="list-style-type: none"> • Converting the data into SPSS/ STATA/ excel/ atlas.ti formats. • Assigning variable labels, value labels and generating code lists. • Assisting Team Members in developing fact sheets, tables and graphs to be used in the report.
4	Disaster Management Expert (1 No.)	<ul style="list-style-type: none"> • Contributing to study design based on extensive knowledge of Disaster Management and risk subject matters • Having detailed knowledge on the disaster and risk related policies and framework • Coordinate with the clients to identify their requirements • Offering technical insight in designing and piloting of survey instruments. • Offer training to master trainers and giving them an orientation on the subject matter. • Formulation of the final reports by analyzing the disaster and risk components of the survey and also the mitigation measures undertaken under the project
5	Cost- Benefit Analysis expert (1 No.)	<ul style="list-style-type: none"> • Have detailed knowledge of cost- benefit analysis of projects • Having detailed knowledge on economic return analysis including tangible and intangible benefits of the project • Offering technical insight in designing and piloting of survey instruments. • Offer training to master trainers and giving them an orientation on the subject matter. • Formulation of the final reports by analyzing cost- benefit component of the interventions in the study areas.
6	Survey Team Leaders (5 No.)	<ul style="list-style-type: none"> • Recruitment of suitable field staff. • Development of training and field deployment plans. • Conducting pilot testing of survey instruments and offering question-wise feedback on piloting to the main

S. No.	Name / Proposed Position	Tasks Assigned
		<p>survey teams.</p> <ul style="list-style-type: none"> • Conducting training of Field Supervisors and Research Investigators in respective states. • Monitoring the data collection and ensuring timely collection. • Conducting surprise field inspections. • Conducting IDIs with key state and district level stakeholders. • Updating the Team Members about the fieldwork status. • Grievance handling, problem resolution and motivation of field staff.

Field Work Teams: Midline and Endline Survey

The data collection phase in each of the two rounds of survey will extend for **six weeks (36 working days @ 6 working days per week)**. This phase would be carried out by the field staff including research investigators and field supervisors. It would be apt to mention that AMS already has a large pool of culturally conversant research investigators, which we plan to utilize for this study. However, any shortfall in consideration with the socio-cultural requirements of the locations would be addressed by employing more candidates through fresh recruitments. The investigators who are conversant in the local colloquial languages and are aware of local customs & traditions shall be selected for undertaking the survey.

Based on our experience of undertaking large scale surveys, it is assumed that a team of 2 research investigators would require about 5 team days to complete the survey in each village. This will include 3 team days for mapping and household listing, and 2 team days for conducting main survey.

Considering, that a total of **270 villages** would have to be covered across the six states, the total number of RIs required for completing the survey within a time span of 6 weeks may be calculated in the following manner. The state-wise field staff requirement has been stated ahead:

No. of PSUs	=	270	
Team Days per PSU=		5 Team days/ PSU	
Total Team-Days =	5 Days per PSU x 270 PSUs	=	1350 Team-Days
Number of Teams =	$\frac{\text{Team-Days}}{\text{Days allocated for Survey}}$	=	$\frac{1350 \text{ Team Days}}{36 \text{ Days}} \approx 38 \text{ Teams} = 76 \text{ RIs}$

States	Villages	RI Teams	Total No. of	Field Supervisors
Goa	20	3	6	1
Gujarat	100	14	28	3
Karnataka	20	3	6	1
Kerala	30	4	8	1
Maharashtra	50	7	14	2
West Bengal	50	7	14	2
Total	270	38	76	10

Thus, it is proposed that a total of **72 Research Investigators** would be deployed to complete each of the two phases of survey in the six states within the given timeframe of 36 days.

In order to coordinate the field work and ensure effective supervision and monitoring of the work of RIs it is proposed to deploy **10 Field Supervisors**, each responsible for supervising the work of 3-4 RI teams in their respective states. The work of RIs would be closely monitored and checked by Field supervisor on a daily basis. The supervisor will conduct surprise visits, undertake complete checking of all formats at the end of the days, and surprise checks and back check of at least 10% of all filled in formats randomly. They will also conduct a total of 39 FGDs, 1 in each of the coastal districts and in-depth interviews with the community and village representatives.

Training of Field Survey Support Staff (Methodology and content)

1. Preface

The Indian subcontinent is one of the worst cyclone affected areas of the world, with about 6% share of the occurrence worldwide. Indian coasts are highly vulnerable to tropical cyclones and the consequent recurrent loss of life and property. In view to address cyclone risks in the country, the government has introduced **National Cyclone Risk Mitigation Project (NCRMP)**, to undertake suitable measures to mitigate its adverse repercussions across the coastal states and UT. National Disaster Management Authority is the nodal

implementing agency of this World Bank aided project. The project has identified 13 cyclone prone states and UTs with varying degrees of vulnerability:

- **Category I: Higher vulnerability States** i.e. Andhra Pradesh, Gujarat, Odisha, Tamil Nadu and West Bengal.
- **Category II: Lower vulnerability States** i.e. Maharashtra, Karnataka, Kerala, Goa, Pondicherry, Lakshadweep, Daman and Diu, Andaman and Nicobar Islands.

The phase I of the project covered the coastal villages of Odisha and Andhra Pradesh. The second phase however is proposed to be completed by 2020, for which NDMA has invited to proposals. The key objectives of NCRMP are **Reductions in cyclone vulnerability** by creating appropriate infrastructure, **strengthening of cyclone warning systems** by enabling quick dissemination of warning and finally, **enhancing capacity and capability of local communities to response disasters**. The main components of NCRMP Phase II revolve around the project objectives, which have been stated ahead:

Component A: Early warning Dissemination system

Component B: Construction of physical infrastructure

Component C: Technical Assistance for capacity Building

Component D: Project Management and Monitoring

2. Objective of the Assignment

The main objective of the survey is to providing a well- researched and documented outcomes/ results of the project monitoring in the form of midline and endline surveys.

- To update the baseline data of phase II of the project & conduct pilot survey
- To conduct the mid- term evaluation by December, 2018
- To conduct the end- term evaluation by January/ February 2020

3. Goals for the Training Programme:

The key goals behind conducting the training programme for Research Investigators were –

- a) To make them understand about the terms and concepts associated with cyclone and disaster management- Country's and state- wise vulnerability profile related to cyclone

- b) To enable them to understand the project interventions, the key issues of concern in the domain of disaster management in context to occurrence of cyclones.
- c) To train and orient the Research Investigators about various components of the research instruments to be used for collection of data;
- d) To upgrade their observation skills to record the project interventions- to assess the tangible and intangible benefits from the NCRMP.
- e) To upgrade their skills of interviewing and the art of eliciting desired information from the field, that is extremely vital for ensuring correctness of data.
- f) To orient them about quality check procedures, essential for maintaining authenticity and reliability of data gathered.

4. Duration of Training:

It is proposed that the training procedure be carried out in two phases- training of the trainers/ master trainers and training of the research investigators.

Phase 1: Training of the Trainers: It is proposed to train the survey leaders and two field supervisors from each of the states to attend the first phase of training at Lucknow. These personnel will be trained by the core team members such as Social Management Expert and Disaster Management Expert on different aspects of the study and the survey. The ToT will take place at the headquarters for 5 days, where the core team will also demonstrate the how to administer the research tools in the field and probable outcomes of the survey.

Phase-2: Training of the field staff: Once the ToT is complete, the trainers will organize a training session for the research investigators in their respective states. The curriculum of the training will be similar to that of the ToT. After training them on basic understanding of the concepts, project intervention, expected outcomes of the survey and protocols of survey, the trainers will also arrange for a mock practice sessions for the RIs to give them a first-hand experience of the survey and will also be clearing their doubts on the same. Considering that 52 RIs and 11 field supervisors will be deployed across the states, number of training batches in each of the states have been given ahead:

States	Total No. of RIs	Total No of Field Supervisors	No. of training batches
Goa	4	1	1
Gujarat	19	4	2
Karnataka	4	1	1

Kerala	6	1	1
Maharashtra	10	2	1
West Bengal	10	2	1

5. Detailed Sessions Plan:

	Session	Time	Contents
Day 1	Session 1	10:30 am to 11:30 am	Orientation of field personnel, Introduction to the study and its objectives
			Background about NCPRM II and its objectives
	11:30 am to 11:45 am		Tea Break
	Session 2	11:45 am to 2:00 pm	Introduction to disasters in India- concepts and terms related to cyclones
			2:00 pm to 3:00 pm
	Session 3	3:00 pm to 4.30 pm	Disastrous cyclones that took place in India and the destruction it caused in the Indian Peninsula
			Impact of the cyclones with respective to the states
	4:30 pm to 4:45 pm		Tea Break
Day 2	Session 1	10:30 am to 11:30 am	Disaster Management Techniques undertaken previously in the states (before NCRMP)
			Components & detailed objectives of NCRMP II
	11:30 am to 11:45 am		Tea Break
	Session 2	11:45 am to 2:00 pm	Detailed Understanding of the 4 components of the project- Early dissemination, importance of infrastructure, capacity building & monitoring
			2:00 pm to 3:00 pm
	Session 3	3:00 pm to 4.30 pm	Findings from Phase I of NCRMP (Odisha and Andhra Pradesh)
			Expected outcomes from phase II survey
	4:30 pm to 4:45 pm		Tea Break
Session 4	4:45 pm to 6:30 pm	Detailed discussion regarding the topics covered in the 2 nd day, along with a doubt clearing sessions	

	Session	Time	Contents
Day 3	Session 1	10:30 am to 11:30 am	Detailed discussion on the purpose and objectives of the study & proposed approach of field survey. Introduction to the survey protocols and types of research instruments to be used.
			Need for midline and endline study
		11:30 am to 11:45 am	<i>Tea Break</i>
	Session 2	11:45 am to 2:00 pm	Detailed discussion on Household Survey instrument using paper-based questionnaire.
		2:00 pm to 3:00 pm	<i>Lunch Break</i>
	Session 3	3:00 pm to 4.30 pm	Detailed discussions on observation checklists for the villages- on the basis of availability of disaster management related infrastructure, availability of basic infrastructures etc.
		4:30 pm to 4:45 pm	<i>Tea Break</i>
Day 4	Session 4	4:45 pm to 6:30 pm	Detailed discussion regarding the topics covered in the 3 rd day, along with a doubt clearing session
	Session 1	10:30 am to 11:30 am	Basic Protocols for Segmentation of the hamlets in the village
			Approach for selecting hamlets in the villages
		11:30 am to 11:45 am	<i>Tea Break</i>
	Session 2	11:45 am to 2:00 pm	Basic protocol for selection of households in each of the village- Near embankments and further away from it- detailed discussion on the same
		2:00 pm to 3:00 pm	<i>Lunch Break</i>
	Session 3	3:00 pm to 4.30 pm	CAPI training using the survey questionnaire, explaining the usage of the CAPI device.
Day 5		4:30 pm to 4:45 pm	<i>Tea Break</i>
	Session 4	4:45 pm to 6:30 pm	Continuation from the previous session & along with a doubt clearing session
	Throughout the day	10:00 am to 5 pm (including the breaks)	Testing & Demonstration of the research tools
			Mock Practice of the tools in similar coastal areas
			Doubt Clearing sessions at the end of the day

6. Profile of Trainees:

A total of 52 Research Investigators and 11 Field Supervisors will be trained during these training programmes. Care will be taken to ensure that the selected Investigators are culturally conversant and aware of the local colloquial terms. The Field Supervisors deployed for this survey will be well versed in managing and ensuring quality in such large scale surveys.

7. Training Kit:

The training kit provided to the trainees included the following:

- Household survey questionnaire
- Observation Checklist
- Field Deployment Plan (allotted villages)

8. Content of the training Material:

The content of the training material will cover all the topics mentioned in the detailed session plans. However, the detailed version of the training material will be finalized after consultation with the client.

8.1 Background about NCPRM II and its objectives:

In order to address the cyclone risks all over the country, specifically in the coastal states, the Government of India has initiated the National Cyclone Risk Mitigation Project (NCRMP). The overall objective of the Project is to undertake suitable structural and non-structural measures to mitigate the effects of cyclones in the coastal states and UT's of India. NCRMP is a World Bank Funded Project

The overall objective of the project is to reduce vulnerability of coastal communities to cyclone and other hydro meteorological hazards through

- Improved early warning dissemination systems
- Enhanced capacity of local communities to respond to disasters
- Improved access to emergency shelter, evacuation, and protection against wind storms, flooding and storm surge in high areas

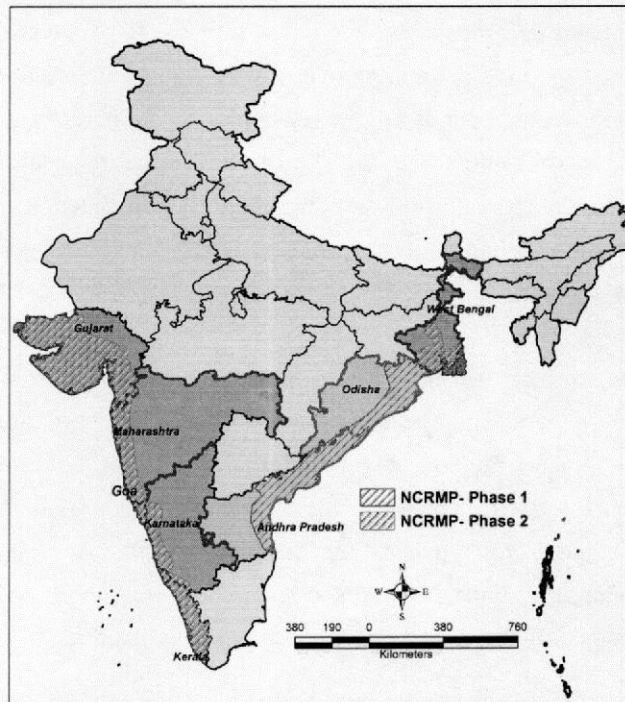
- What is NCRMP?
- Project Area- Both Phase I and Phase II
- Reasons for implementation of the project
- Project Commencement & concluding date

- Strengthening DRM capacity at central, state and local levels in order to enable mainstreaming of risk mitigation measures into the overall development agenda.

NCRMP Phase I: Phase I of the project, which covered the coastal areas of Andhra Pradesh and Odisha was approved by the Government of India in January, 2011 and is approaching its completion in March 2018.

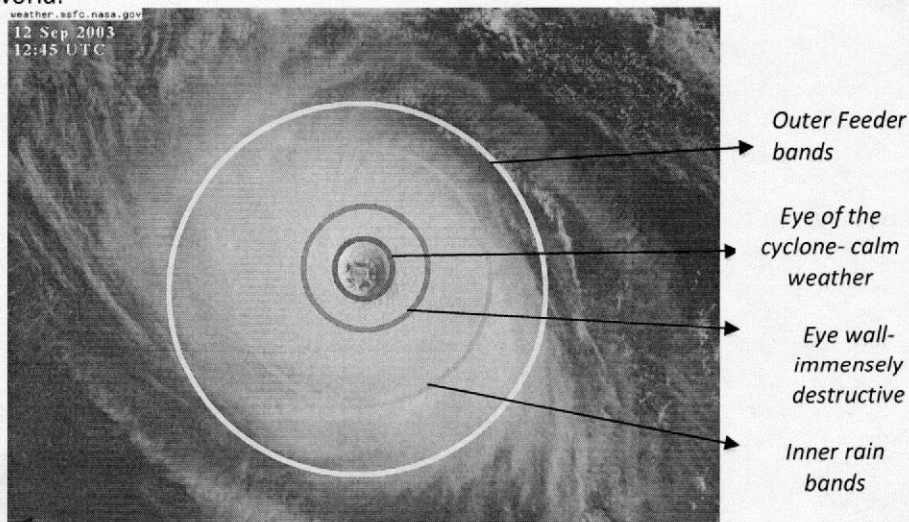
NCRMP Phase-II Government of India has approved Phase-II in July, 2015 for five years up to March, 2020 covering States of Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal.

It is pertinent to mention that the Indian coast is highly vulnerable, particularly to severe cyclones and cyclone induced heavy rains. Secondary literature also states that 40% of the total population lives within 100 Kms of the coast. Keeping the figures in mind, NDMA has developed such proactive approach for integrating disaster risk reduction in development planning..



8.2 Introduction to disasters in India- concepts and terms related to cyclones:

A natural disaster is a sudden, catastrophic event caused by natural processes of the Earth. Different types of natural disasters include floods, earthquakes, cyclones, volcanic eruptions and many more. Each of these disasters causes loss of lives, properties every year, all around the world.



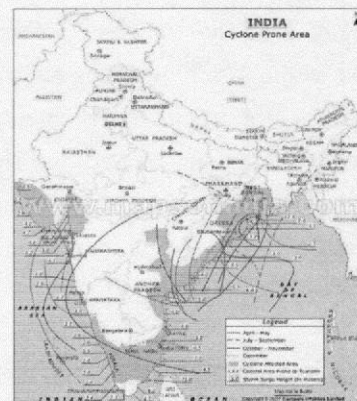
- Types of Disasters
- Introduction to cyclones
- Terms related to cyclone
- Occurrence of cyclone in coastal areas
- General Impact of cyclone on the land/ life/ properties

Concepts & Terminologies:

- Depression
- Super cyclone
- Storm Surges & squalls
- Importance of embankments
- Torrential rain & inland flooding
- Eye/ eye wall of cyclone

Tropical Cyclones: Also known as hurricanes and typhoons, tropical cyclones are intense circular storms originating over warm tropical oceans and are characterized by atmospheric pressure, high winds and heavy rain. Drawing its energy from the sea surface, the speed of the wind often exceeds 119 Km/ hr and sometimes surpasses 320 Km/ hr. Accompanied by torrential rains and devastating phenomenon called storm surges, the elevation of the sea surface reached 6 meters causing flood. Such cyclones are common in tropical and sub-tropical area of the world, which includes India.

The tropical cyclone gradually and typically weakens rapidly over land where they are cut off from their primary energy source (obtained from the sea/ ocean). Hence, coastal regions are particularly vulnerable to damage from a tropical cyclone as compared to inland regions. In India, cyclones originating from the Bay of Bengal affect the east coast and the ones originating from the Arabian Sea affects the west coast.



Destruction due to cyclones: Cyclones are known to cause severe damage to infrastructure through high speed winds. Very strong winds which accompany a cyclonic storm damages installations, dwellings, communications systems, trees etc., resulting in loss of life and property. Torrential rainfall (more than 30 cm/hour), followed by heavy rains associated with cyclones is another major cause of damages. The storm surges increases the sea level, hence, causing submergence of the coastal areas. Every year, India loses hundreds of lives due to cyclone along with millions of monetary loss.

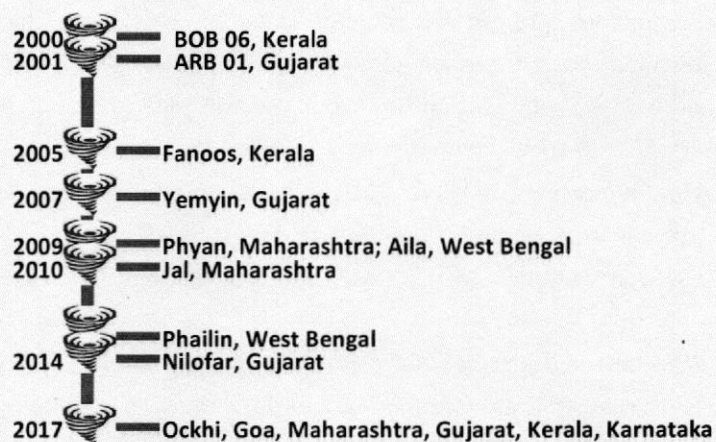
8.3 Impact of the cyclones with respective to the states



The Indian subcontinent is one of the worst cyclone affected areas of the world, with about 6% share of the occurrence worldwide. Indian coasts are highly vulnerable to tropical cyclones and the consequent recurrent loss of life and property. Tropical cyclones in India are an annual affair, with almost 92 severe storms occurring in the eastern coast out of a total 262, between the year 1891 and 1990, and several more in the years since. Analysed data of period 1980- 2000 reflects that on an average, 370 million people are exposed to this natural disaster annually in India. Out of the cyclones that develop in the Bay of Bengal, over 58 per cent approach and cross the East Coast in October and November. Only 25 % of the cyclones that develop over the Arabian Sea approach the West Coast. Some of the severe cyclone that took place in the recent past in the NCRMP II states are as follows:

- Overall Occurrence of cyclone
- Cyclone timelines in 6 states
- Loss & Lives lost in cyclone
- Mitigation Measures

Recurring cyclones account for large number of deaths, loss of livelihood opportunities, loss of public and private property and severe damage to infrastructure, thus seriously reversing the developmental gains at regular intervals. Broad scale assessment of population at risk suggests that an estimated 32 crore people, which accounts for almost third of the country's total population, are vulnerable to cyclone related hazards. Climate change and its resultant sea-level rises can significantly increase the vulnerability of coastal population.⁹ The cyclone do's and don'ts are as follows:



Cyclone Timeline of the NCRMP II states

⁹ Cyclones & their impact in India, NCRMP

<p>Before Cyclone occurs</p> <ul style="list-style-type: none"> • Repair loose tiles/ doors & windows in the household • Demolish condemned buildings • keep some dry non-perishable food always ready for use in emergency • keep some wooden boards ready so that glass 	<p>Before Cyclone occurs</p> <ul style="list-style-type: none"> • Keep monitoring the warnings. This will help you prepare for a cyclone emergency. • Pass the information to others. • Ignore rumours and do not spread them; this will help to avoid panic situations. • Stay alert for the next 24 hours & believe in
<p>When evacuation is instructed</p> <ul style="list-style-type: none"> • Pack essentials for yourself and your family to last a few days. These should include medicines, special foods for babies and children or elders. Demolish condemned buildings • Remain in the shelter until you are informed to leave 	<p>Post- cyclone measure</p> <ul style="list-style-type: none"> • You must get inoculated against diseases immediately. • Clear debris from your premises immediately. • Report the correct losses to appropriate authorities. • You should remain in the shelter until informed

8.4 NCRMP Phase II Project Components:

The primary objective of NCRMP is to provide support to the coastal states of the country. NCRMP has divided the country into high and low vulnerability states based on the frequency of occurrence of cyclones, coastal population and area. The components of the project comply with the project objectives, which are as follows:

Component A: Early Warning Dissemination Systems (EWDS)- The objective of this component is to reduce the vulnerability of coastal areas by addressing the existing gap in dissemination of warning to the communities. The components under EWDS include necessary equipment and training. This will allow the state/ district/ sub-district centre to send communications directly to village level using **Global System for Mobile Communications (GSM)/Code Division Multiple Access (CDMA) based technology.**

- Detailed Objective of NCRMP II
- Project Components of NCRMP II

Component B: Cyclone Risk Mitigation Infrastructure – The objective of this component is to increase the preparedness and reduce the vulnerability of coastal communities through strategic infrastructure investments, i.e., improving their capacity/access to emergency shelter, evacuation routes etc.¹⁰

Goa- 40 MPCS, rehabilitation of 30 km of bunds, 25km of underground electrical cabling & construction and rehabilitation of 30km of roads and bridges
COMPONENT A: Early Warning Dissemination System: Last Mile Connectivity for the dissemination of cyclone warnings
COMPONENT B: Construction of physical infrastructure- cyclone shelters, embankments, roads, bridges etc. for risk mitigation purposes.
COMPONENT C: Technical assistance for capacity building on disaster risk management for mainstreaming of DRR policies, programmes
COMPONENT D: Project Management & Monitoring
West Bengal - 150 MPCS and flood shelters & 60km of underground electrical cabling.

- Findings of phase I in Odisha
- Findings of phase I in Andhra Pradesh
- Constraints Faced
- Expected outcomes of NCRMP Phase II

Component C: Technical Assistance for Multi-Hazard Risk Management - The objective of this component is to improve the quality of available information on multi-hazard risks for decision making, and strengthen multi-hazard risk management at a national level. The sub-components of multi-hazard risk management are as follows: risk modelling and assessment, risk capacity, enhancing the Capacity for Disaster Risk Management and response in non-coastal states, hydro-meteorological Resilience Action plans, Design of a National Seismic Risk Mitigation Program.



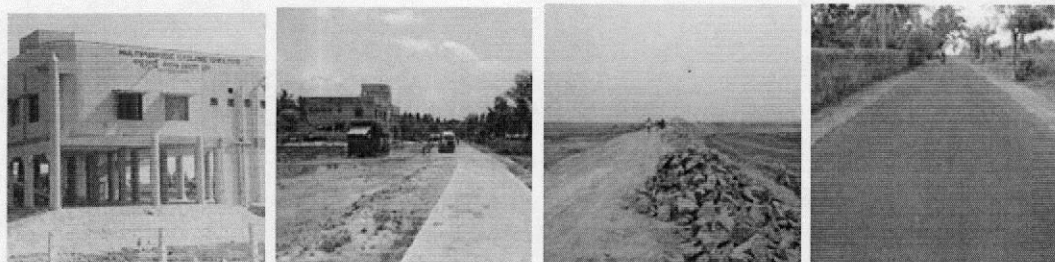
Component D: Project Management and Implementation Support- This component will finance the incremental operating costs of the Project Management Unit (PMU) and the State PIUs.

8.5 Findings of Phase I & Expected outcomes:

The project component was similar to that of the phase II. The key sectors that the midline survey of phase I gave estimates were as follows:

- **Socio- Demographic Profile** of the coastal area of the states: This gave a detailed idea regarding the age & gender component of the coastal population, dependent population- (children, aged and disabled), ownership of land and house, type of house, occupation of the population.
- **Early Warning Dissemination Systems:** covered aspects such as awareness of the village population regarding the same, ability to interpret the warning signs, time period for receiving the warnings
- **Road, Bridges and Saline Embankments:** Aspects such as availability of multiple purpose shelters, capacity of such shelters, infrastructural facilities within it, its maintenance, construction of roads, bridges, extent of saline embankments and bunds.

Odisha



Andhra Pradesh



NCRMP I Interventions in Odisha and Andhra Pradesh villages: Shelter, concrete roads, embankments

- **Capacity Building:** Capacity building includes training and capacity building of the household members, community leaders, participation in mock drill
- **Evacuation during the recent cyclones:** A descriptive understanding of the evacuation plan undertaken in the recent- most cyclone.

- Objective of the study
- Need for Midline and Endline
- Approach of the study

8.6 Purpose & Objective of the Midline & Endline Study- Phase II:

The National Disaster Management Authority (NDMA) has invited proposal for undertaking a midterm and end term evaluation for National Cyclone Risk Mitigation Project – Phase II to generate benefit monitoring and evaluation estimates testing the effectiveness of the project components and strategies, midway of the study. The proposed study will seek to generate quantitative and qualitative information regarding the four components of the project mentioned in the preceding section and will include a 'before-after' assessment of the same.

The objectives of the study are as follows:

- To update the baseline data of phase II of the project & conduct pilot survey
- To conduct the mid- term evaluation by December, 2018
- To conduct the end- term evaluation by January/ February 2020.

It is essential to conduct a midline and endline study, firstly, to identify the extent to which the objectives of the projects have been achieved; secondly, to identify, document and analyze the present issues pertaining to risk management, in case of occurrence of cyclones. Secondly, to guide the officials, agencies associated with the project to shape up the strategies and activities accordingly.

- Development of research tools
- Need for survey questionnaire
- Need for observation checklist
- Protocols for the enquiry

Based on the findings and indicators used under the phase 1 of NCRMP, it is proposed that study approach be in line with the emergency management cyclone covering the different aspect such as:

Mitigation: referring to preventing disasters from taking place or lessen the impact of the unavoidable ones. Hence, mitigation should occur before emergency takes place.

Preparedness: refers to making plans and making the necessary equipment and supplies readily available prior to the occurrence of the natural disaster.

Response: refers to the immediate action upon occurrence of the disaster.

Recovery: The recovery, rehabilitation and reconstruction phase

8.7 Research Tools: Survey Questionnaire & Observation:

Research tools are one of the most important aspects of the study, as it is the primary tool for extracting primary data. The core team members under the leadership of Team Leader will review the project documents and available secondary literature to prepare the research instruments for the study. The research instruments will first be developed in English, then translated to local language to facilitate ease of administering the survey in the field. The local language survey instruments will be back translated into English to ensure construct validity and consistency between the formats. Guidelines for monitoring will also be developed along with the field protocols. After formulation of the study design, the research tools will be administered in at least 2 villages from each of the states to assess the flow of the questionnaires in form of pilot survey.

- **Need for research questionnaire:** Research questionnaires will be used to extract information from the households in the coastal areas.

Structured questionnaire refers to a device for securing answers to questions by using a form which the respondent fills in by him/herself. It consists of some questions

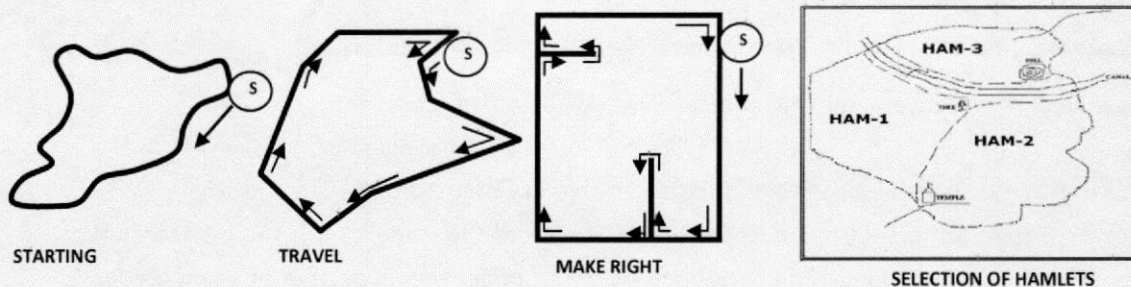


printed or typed in a definite order. The research investigators will visit their allocated villages and enquire the questions to the village households to obtain the necessary information

- **Need for observation checklist:** An observation checklist is a list of things that an RI is going to look at when observing the infrastructure related to the project interventions based on certain parameters.

8.8 Sample Selection on reaching the Village

Selection of the Hamlets: On reaching the sampled village, it is proposed that the field officials establish contact with key knowledgeable persons from village- gram sevaks, PRI members etc. With the help of these people, the field staffs will undertake a quick mapping of the village to identify its boundary and identify the hamlets within it.



The research investigators would then randomly select two hamlets with population more than 100 from each of the villages. After the mapping exercise, the Field staff will engage in discussion with the key informants of the village who can provide necessary information accurately.

Selection of the Households: The terms of reference clearly indicates that 20 households have to be covered from each of the village. It is proposed that in a village, ten of the households be selected from the ones located nearest to the coast, just next to the embankments and the rest of the ten be selected at a considerable distance from the coast. The purpose of the stratified selection of households is that, it will give a detailed understanding of the impact of the project at different distance from the coast. Considering two hamlets are being selected from each village, 10 households will be covered from each hamlet, five of each of the two categories.

- Who are the beneficiaries?
- Method of segmentation of the village
- Selection of hamlets
- Factors to be considered during selection of households
- Survey Protocols

The research investigators being involved in direct interactions in the field, will have to be responsible while collection of primary data, as it is the only ways in which the study can be completed efficiently.

8.9 Vulnerability & Risk Assessment

Vulnerability "is the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes."

$$\text{Vulnerability} = \text{Exposure} + \text{Sensitivity} + \text{Adaptive Capacity}$$

Exposure "is the nature and degree to which a system is exposed to significant climatic variations."

Sensitivity "is the degree to which a system is affected, either adversely or beneficially, by climate related stimuli."

Adaptive capacity "is the ability of a system to adjust to climate change to moderate potential damages, to take advantage of opportunities or cope with the consequences"

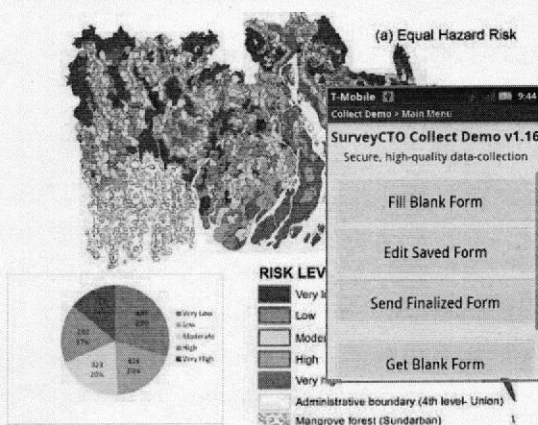
Risk assessment is an essential step towards targeted disaster risk reduction. Risk assessment is the function of vulnerability, exposure and occurrence of hazards. Risk assessment leads to the identification of the areas most vulnerable/ prone to the risks and the areas which are least vulnerable.

Basic definition and constituents of vulnerability assessment- Vulnerability, exposure, sensitivity, adaptive capacity

8.10 Use of CAPI Device:

As mentioned previously, it is of utmost importance to complete the survey efficiently, in order to generate robust estimates. The CAPI will not only record the geographic coordinates of the households surveyed, but it will also geo-tag the infrastructure facilities proposed for the project, state- wise. The RIs will be trained in the following aspect of CAPI:

- i. **Login screen:** When the interviewer clicks open the application, the login screen appears, which will have separate icons for the different tasks that the interviewer may need to perform. A screen shot of survey CTO based login screen is presented as an illustration alongside. As shown in the figure, the interviewer has the option of **fill a new blank format** if



Risk Map, = Vulnerability x Exposure
Source: Assessing Risks from Cyclones for Human Lives and Livelihoods in the Coastal Region, Quader & Khan

he is starting the survey afresh in the allotted household. In case s/he was unable to complete the interview in the first sitting, and s/he needs to **edit a partially saved format**, there will be an icon for that. Further, if the interviewer has finalized the format, s/he can **send the finalized form to the centralized server**.

In CS-Pro based application, the interviewer may view the details of households allotted to him/her and also view of the status of these households in terms of data collection. For example it may show a list which would appear as follows -

Interview HH (02): ADDRESS: HH 02, Village XYZ; HOH: Mr. ABC

Status: Not visited

Interview HH (03): ADDRESS: HH 03, Village XYZ; HOH: Mr. PQR

Status: Partially completed

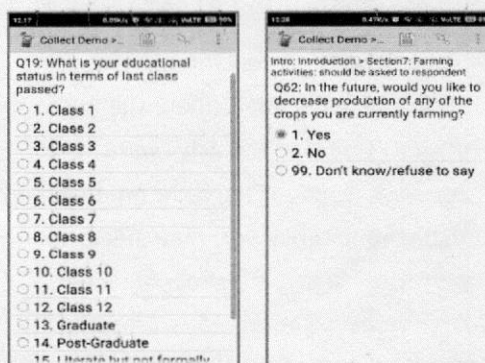
Interview HH (02): ADDRESS: HH 02, Village XYZ; HOH: Mr. ABC

Status: Completed

The interviewer may select any of the household from the list, and will have an option to either revisit the household in case of partially complete questionnaire, modify the questionnaire filled so far, fill the remaining sections which were left incomplete, fill a new form or delete the database, in case that household needs to be replaced or dropped due to any field level contingencies as per the directions of her/his respective Supervisor.

ii. **Entering pre-coded responses:** When the

interviewer is in the process of administering the questionnaire, there may be certain questions which will have pre-coded responses from which the interviewee may select any one. In such questions, when the interviewer attempts to enter the response, s/he will be presented with a drop down menu with radio buttons for each coded response. Based on the response obtained from the interviewee the interviewer may select the applicable response. Some such screen shots have been presented in the figures alongside. In such formats the interviewer shall be able to select only one response. If he selects some other response, the first response that s/he entered will get automatically deselected.



iii. **Capturing of Images:** To ensure further authenticity of data collected and to generate photographic evidence which can serve the purpose of easy identification by the concerned personnel, the tablet devices and Survey CTO formats also have an option of capturing the image of the location or respondent as per the survey requirements. These images can also be used for geo-tagging if the client requires at a later stage. This serves as a value addition that we propose to make to the proposed study, if it is agreeable to the NDMA/ NCRMP.

iv. **Entering Numeric Response which is not pre-coded:** There may be questions in which the interviewer may be required to fill in numeric responses which cannot be pre-coded. In such case, adequate restrictions will be placed in terms of number of digits up to which the responses may go and the numeric range in which the responses

are expected. The interviewer when administering the specific question will get a blank space in which a/he will have to enter the response.

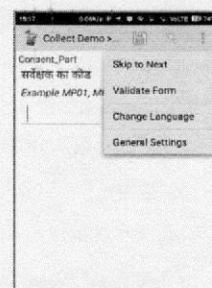
v. **Entering Text in Questions with no Pre-coded Response:** There may be certain questions in the questionnaire, where the interviewer may be required to enter a response which is either

beyond the codes already mentioned (questions having an 'others' code which needs to be specified) or for which there is no pre-coded response.

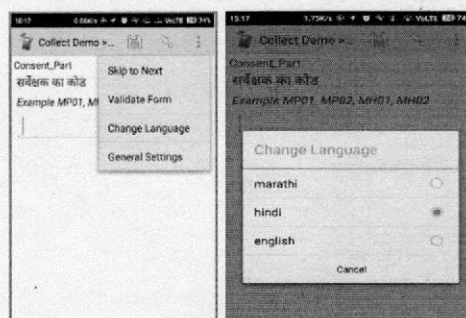
vi. **Entering Responses for Multiple Response Questions:** In certain questions which are expected to yield multiple

responses from the interviewee. When the interviewer attempts to record the answers for such questions, s/he will be presented with a drop down menu having a list of pre-coded responses with check boxes. In such formats the interviewer may check multiple responses based on the responses offered by the interviewee.

- vii. **Option for Navigation:** The software will also have in built-systems for navigation within the questionnaire. The interviewer may choose to skip certain section for the time being due to non-availability of person who may respond for that section or any other field level contingencies. In such cases, the interviewer may select the option of 'skip to next'. S/he may continue to skip until he reaches the question/ section that s/he wishes to fill at that point in time. In case, s/he or he thinks s/he needs to go back to certain question and change the response of that question, or go to a question that remained unfilled previously, he may select an option of 'go back to the previous question'. Like the above, s/he may continue going back to the previous question until they reach the question or section that they wish to fill.



- viii. **Option for language change:** As it is a multi-state survey, the application will have in-built mechanism for changing the language in which they wish to interview. Keeping in view the study requirements the questionnaire will be uploaded in English, Hindi, Gujarati, Kannada, Malayalam, Marathi and Bengali. The interviewer may change the language either in the beginning or at any point in time when he/she wishes depending on his/her convenience.



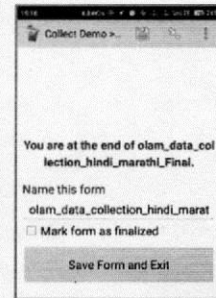
- ix. **Skips/ Filters:** In the questionnaire there are expected to be multiple places where certain questions need to be skipped based on response to some filter questions. In the software, these skips/ filters will be carefully programmed in the software itself, and will get executed automatically based on the responses to the filter questions. After designing the questionnaire these skips and filters will be thoroughly checked in the piloting stage to ensure that the correct pattern is programmed.

- x. **Saving Data:** There will be two ways in which data will be saved in the software.

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a. Automatic Saving: When a household or individual interview gets completed, the program will automatically save a copy of the data when the interviewer reaches the end of the questionnaire. Therefore when the interviewer has completed an interview, s/he is not required to manually save the data by clicking any of the menu options for saving. The program will also save automatically at certain points of the questionnaire, for instance it saves after completing the household assets section, after the consumption section, etc.



b. Manual or Partial Saving of data: There will be situations where the interviewer will want to save the data manually. For instance, if s/he needs to exit the program in the middle of an interview, s/he will generally want to save the data they had collected to that point. Manually saving the data is also called a “partial save” – it’s partial in the sense that all information up to the current question is saved. The interviewer will be able to manually save the questionnaire at any point by clicking Save at the bottom of the screen. They can also save on exit by clicking 'Partial Save' icon. The interviewer may have to stop or pause the program part way through the interview for any number of reasons:

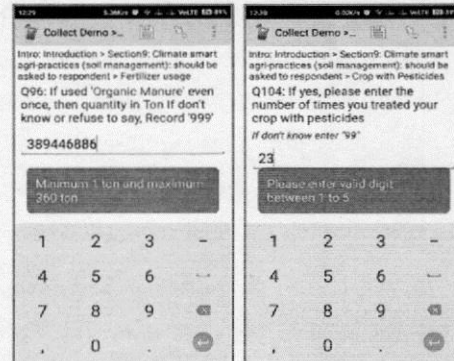
- The respondent needed to step out and you need to postpone the interview until a later time
- The tablet battery is running low and they have to turn off the tablet in order to switch batteries
- If the software or the tablet appears to be malfunctioning they will have to save the data before attempting to restart the program or reboot the tablet.

xi. Interviewer Instructions: For certain questions the interviewer may be required to follow certain instructions. Such instructions or reminders shall be in-built into the software and will appear along with the pertinent question. All such instructions will appear in bold and italics so that the interviewer does not confuse it with main question. If required, they may be formatted in separate colour so that they catch the attention of the interviewer on appearing.

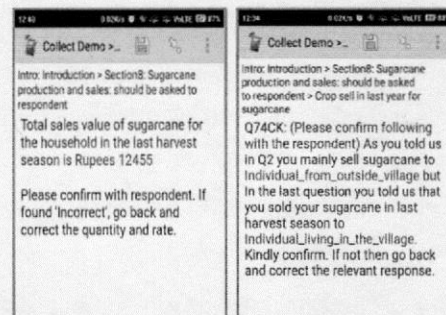
xii. Pop-up Messages: The software will also have in-built programme for popping up relevant messages as and when required during the interviewing process. Some types of messages which may pop-up during the programme are as follows -




a. Warning Messages: If the interviewer has entered a wrong response, or a response which is beyond the expected range the software will pop up a message stating the warning. In such case the interviewer will have an option to re-check the data and correct the response by reentering it in the desired place. In case the interviewer thinks that the response is correct and should be saved as it is s/he will also have an option for that.

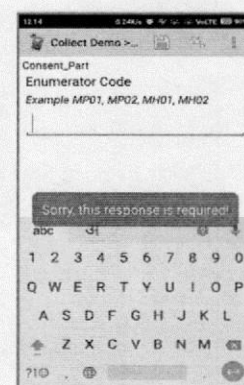


b. Error Messages: Error messages will pop up in case the interviewer is required to resolve some inconsistency by changing one or more of the values entered. The interviewer will not be able to navigate further, until s/he corrects the inconsistencies pointed out by the software.



c. Confirmatory messages: There may also be some confirmatory messages in the software. These messages will pop up if the interviewer is required to recheck certain value. S/he will have an option for going back to the specific question and correcting the value or continue with the same value.

d. Warning in case of Missing Response: In order to ensure that all the questions are administered, the respondent will be displayed warning messages, if s/he is leaving certain response and is attempting to move forward leaving some response unfilled. This will prompt the interviewer to complete the question before s/he moves forward to the next question. However, considering the fact that there may be some questions for which the answer is not available at that point and the interviewer will need to wait for next visit or other respondent as applicable, he will be given an option to navigate ahead and come back to this question later.



xiii. Data Syncing: Once the interviewer has completed the data collection of certain households, s/he will be required to sync/upload the data with the centralized servers. In CS-pro based CAPI format, a provision shall be made to upload the data on cloud

based servers. The organization will create a server especially for this survey, which will be open to access by key personnel in the agency headquarters and NCRMP evaluation team. Once the data is uploaded, the interviewer will not have access to it and will not be able to edit it further. Thus, in order to ensure that correct and complete formats are uploaded, we propose that the forms filled by the interviewers will be checked thoroughly by the concerned Supervisors, who will upload it on the server once he is sure of the quality.

In case we use Survey CTO based platform for data collection, the data will get automatically synced to the Survey CTO account of the organization, whenever the investigator connects her/his tablet to the internet. Considering the network connectivity issues in the rural areas, the software will have the provision of collecting the data in offline mode. After completing certain number of interviews as per protocol, when they return to a place with connectivity, they will connect their tablets to internet and will get their data synced to the server. In this context it will be apt to mention that having been involved in multiple surveys with Survey CTO platform, the organization has its own Survey CTO account which will be used for data sharing. The NCRMP Evaluation team shall be given access to the same, so that they can review the data as and when they require.

- xiv. **Time Stamping:** The software will also have a provision for automatic time stamping both before and after the interview as well as at various points across the survey schedule. This time recording will take place at the back end without the knowledge of the Investigators. An assessment of progression of survey and time taken for going from one section to the other will help draw pertinent insights into the performance of the interviewer and will also help generate insights into the way to economize on the time taken. Suitable instructions may be offered to the investigators based on this assessment to help him/her enhance their efficiency.
- xv. **Audio recording:** Some sections of the interview may also be recorded, which shall be decided in consultation with the NCRMP team. There can be two approaches for recording the audio, one happens automatically without the knowledge of the interviewer, and in the other approach, the interviewer receives a prompt to enable recording of the interview process. Though the first approach helps keep a tab on the quality of interview and check the veracity of the data being collected, it has one major drawback that must be kept in mind. In case of automatic recording there are times that the voice recording does not happen clearly as the respondent may be sitting at a distance from the interviewer and his tablet. To avoid this, second option may be

chosen, whereby the interviewer receives a prompt to initiate recording. In this case the interviewer will become more cautious and will ensure that the voice is properly recorded adjusting the placement of tablet devices.

9. Mock Practices & Doubt Clearing Sessions:

Mock practices are essential tools that will eventually prepare the research investigators for the actual survey. The trainers will take the research investigators to the similar coastal locations in the last day of the training, where they will be asked to conduct interviews with the households, to see if they can easily ask the questions, following proper interview and field protocols.

Apart from the mock practices, doubt clearing sessions constitute an important aspect of the training session. In each of the five days of training, a specific time will be allotted for the participants to clear their doubts. The doubt clearing sessions will ensure that the RIs have clear understanding of the study.



Tentative Work Schedule and Planning for Deliverables

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List of Key Experts

Sl.No	Name	Position
1.	Dr. Devendra B. Gupta	Team Leader
2.	Dr. Satyendra Tripathi	Social Management Expert
3.	Dr. S.M. Mohsin	Statistical Analyst
4.	Dr. Roop Kishan Dave	Disaster Risk Management Expert
5.	Dr. Swati Raman	Cost Benefit Analyst

Appendix-D

Breakdown of Cost

Item	Cost (INR)
Including:	
(1) Remuneration	60,65,000
(2) Reimbursables	68,95,000
<u>Total Cost of Financial Proposal</u>	1,29,60,000
Indirect Local Tax Estimates GST@18%	23,32,800
Total Estimate for indirect Local Tax	23,32,800

Minutes of Meeting Between PMU, NCRMP, NDMA and M/s AMS, Lucknow for Negotiations on Draft Contract on Consulting Services for Benefit Monitoring & Evaluation of NCRMP- II Held on 12.09.2018 at 3 pm at NDMA Bhawan

As M/s AMS, Lucknow was selected on the basis of QCBS for the above-mentioned consultancy services; the firm was invited for negotiations on draft contract by PMU, NCRMP, NDMA.

2. The negotiation meeting took place on 12/09/2018 at 3 pm at NDMA Bhawan. The Meeting was attended by the following:-

PMU, NCRMP

- i. Sh. S. S. Jain Dy.PD, NCRMP-Chairman, CEC
- ii. Smt. Geetanjali, Project Manager, NCRMP- Member
- iii. Gp Capt(R) Chandra Shekhar, Proc. Spl.- Member
- iv. Sh. Gireesh Kumar, Fin. Spl.- Member
- v. Ms. Minati Sinha, Member

M/s AMS Pvt. Ltd.

- i. Dr. Swati Raman, Chief Research Analyst, M/s AMS, Lucknow
- ii. Dr. R.P. Singh, Sr. Manager, M/s AMS, Lucknow

During the negotiation meeting, following decisions/confirmations were made:-

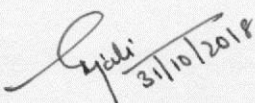
- (a) M/s AMS confirmed the availability of all key experts, as stated in their Technical Bid, till the completion of the Study.
- (b) M/s AMS also confirmed conducting surveys in the coastal States through their regional branches/field offices or through tie up with other similar organizations
- (c) M/s AMS agreed to devise required formats for collection of baseline data from NCRMP-II States and get these formats vetted by PMU, NCRMP, NDMA before collecting baseline data.
- (d) PMU, NCRMP agreed to provide necessary reference material of the BME study of NCRMP-Phase-I as required.
- (e) It was also agreed that clarifications issued prior to submission of bids will form an Annexure to Appendix-A (Terms of Reference) to the Contract.
- (f) M/s AMS confirmed adhering to the Description of Services, as provided in their Technical Bid, which will also be attached as an Appendix to the Contract.

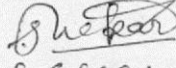
(g) M/s AMS confirmed availability of the Team Leader in all meetings with PMU, NCRMP, NDMA pertaining to the study.

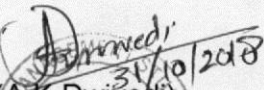
(h) It was mutually agreed that the timeline/ Schedule of Deliverables, as given under para 14, Section 2 (ToR) of RFP will remain 22 months with some modifications as follows:-

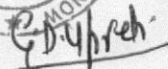
Sl. No.	Deliverables	Timeline
1	Inception Report outlining methodology of Study, coverage, sample size, questionnaire etc	Within 30 days of signing the contract.
2	Baseline data report covering clear quantitative and qualitative assessment of various key Performance Indicators of Phase-II	Within 02 months of signing the contract.
3	Pilot Study to test the questionnaire/survey tools (02 villages in each State)	Within 04 months of signing the contract.
4	Mid-term Review Report covering (iii) quantitative and qualitative assessment of Key Performance Indicators vis-à-vis Baseline data and recommendations for midcourse corrections. (iv) Cost Benefit Analysis	Within 08 months of signing the contract.
5	End review report covering (v) quantitative and qualitative assessment of Key Performance Indicators vis-à-vis Baseline data and evaluation of Project Outcomes and suggestions for upstream activities to ensure sustainability. (vi) Cost Benefit Analysis	03 months prior to the completion of Project

3. The meeting came to an end at 1630 hrs with thanks to the participants.


(Geetanjali)
Project Manager, NCRMP, NDMA


Witness: G. D. Upadhyay (A) Chandra Shekhar
Proc. Spl.
31/10/2018


(A.K. Dwivedi)
Director
Academy of Management Sciences


(G.D. Upadhyay)
National Field Coordinator, AMS
31/10/2018