MINUTES OF MEETING ON 'DEMONSTRATION OF DCRA APP., OFFLINE DESKTOP VERSION OF WEB-CRA AND OFFLINE EXPOSURE MANAGEMENT' HELD ON 25.01.2021 AT 11 AM AT IMD, NEW DELHI.

A meeting on Web based Dynamic Composite Risk Atlas (Web-DCRA) and Decision Support System (DSS) Tool for cyclone and associated impacts was held on 25th January, 2021 at 11 AM under the Chairmanship of Dr. M. Mohapatra, DGM, IMD, New Delhi. The meeting was co-chaired by Sh. Ramesh Kumar Ganta, JS (Admn. & CBT) & Project Director (In-Charge), NCRMP II, NDMA. The meeting was attended by Officials from NDMA, IMD, INCOIS, NRSC, the World Bank, coastal States/UTs, and Consultant (M/s RMSI). List of participants is attached at Annexure-I.

2. The Consultant (RMSI) team made demonstration of Offline Desktop version of Web-CRA, Offline Exposure Management, and DCRA App. The Exposure data development consisting of inventory of the coastal assets at village/city levels was shown. These includes population, buildings, cyclone shelters, schools, hospitals, fire stations, police stations, infrastructure elements such as roads, railway line, power, airport, port, etc., utility networks, religious places, heritage buildings, etc. The RMSI team informed that the offline (desktop) mode for exposure management facility will be made available at State/UT local server with provision to sync and upload updated exposure data to the Web-DCRA. The offline version is also capable of running on a desktop. State admin must have QGIS and PostgreSQL as two pre-requisites for updating the Exposure database in the local machine/system. The QGIS will be made available by RMSI to each State's Desktop system to facilitate Exposure database updation at their level, separate to the Web-DCRA & DSS Tool.

The DCRA App. (Android based Mobile Application) was also demonstrated. The Mobile App. displays few cyclones related information (Cyclone name, category, max. wind speed, max. surge height & max. flood depth) on the dashboard, with other different features Viz.; 'I AM SAFE'; Crowd sourcing to get feedback from people, who want to submit information related to event, such as status of flooding, approx. wind speed,/surge height, damage description, need to be evacuated, etc.; IMD bulletin; and Web-DCRA outputs, Viz.; reports on Surge hazard, Flood Hazard and Wind Hazard for the cyclone in real-time.

3. Sh. Ramesh Kumar Ganta, JS (Admn. & CBT) and Project Director (In-Charge), NCRMP, NDMA suggested that all details such as frequency of exposure data updation and decision making for the updation should be ensured in the User Guide Document.

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Dr. Mohapatra, DGM, IMD suggested for quarterly updation of exposure data. He emphasised that the exposure data updation must be done in the month of March and September every year, and accordingly the SOP needs to reflect the process and a mechanism needs to be developed for efficient exposure data management. The DGM, IMD insisted for the Mobile Application to be CAP (Common Alerting Protocol) compatible, and there should also be 'I AM UNSAFE' feature. He further advised that the Crowd Sourcing should be enabled for only message/crowd sourcing description of the impacted site, the Mobile App. functionalities should be GIS based and high-resolution dynamic maps showing track forecast, wind forecast, surge forecast, rainfall forecast to be accessed through the App. Dr. Mohapatara also stressed for policy on local language options (as per schedule of language of GoI) and archival and retrieval of data/information in the Application. Accordingly, Sub-Committee needs to be constituted involving IMD to finalize features/content of the Mobile App./ Crowd Sourcing.

Mr. Anup Karanth, Sr. DRM Specialist & TTL (NCRMP), The World Bank suggested to customise access to the Mobile App. for different Users such as, Govt. Authorities, Public & Media; hence registration should be done at different level and registration logic and information access extent to be defined for different Users. He further stressed that the Mobile Application should be on GIS platform, and relevant information from Web-DCRA should be customised to the DCRA App, and in case of 'Not Safe' situation, contact details/phone numbers of local concerned Authorities (SDMA, DDMA & SEOC) should be available in the Application. He insisted User Survey to be undertaken, and hence consultation with the concerned stakeholders, such as Fishers, Fire & Emergency Services, etc. must be carried out by RMSI as developer of the Mobile Application in order to understand expected information from Users' point of view/Users' requirements.

- 4. Based on the discussions/demonstration, the action plan/way forward is summarised as under:
 - i. Frequency of exposure data updation and decision making for the updation should be ensured in the User Guide document for Web-DCRA & DSS Tool. Updation of exposure data to be done on quarterly basis, essentially in the month of March and September every year, and accordingly the SOP and the mechanism developed for the exposure data management needs to capture this information also highlight the agency/institution and the person-in-charge for updation.
 - RMSI as developer of DCRA App (Mobile Application) need to conduct Users
 Survey through consultation with the concerned stakeholders, such as coastal

population, Fishers, Farmers, Disaster Managers, Fire & Emergency Services, Revenue Deptt. Officials, Aapada Mitra/Community Volunteers and other Stakeholders like cyclone shelter managers, etc. in order to understand the Users' requirements.

- iii. The DCRA App has to be CAP (Common Alerting Protocol) compatible.
- iv. All relevant information from Web-DCRA to be customised to the DCRA App.
- v. Access to the Mobile App. needs to be customised for different Users such as, Govt. Authorities, Disaster Managers, Public & Media, and hence registration should be done at different level. RMSI to define registration logic, and information access extent for different Users.
- vi. In addition to the existing features in the DCRA App., there should also be 'I AM UNSAFE' feature, enabling the Community level Users to access contact details/phone numbers of local concerned Authorities (SDMA, DDMA & SEOC) available in the Application, in case of unsafe situation/emergency. Provision should be made for automatic dissemination of location & personal details, once the individual presses the 'UNSAFE' button like SOS.
- vii. Crowd Sourcing feature of DCRA App. to be enabled for only message/crowd sourcing description of the impacted site and a few option on damage.
- viii. The Mobile Application should be on GIS platform allowing access of highresolution dynamic maps showing track forecast, wind forecast, surge forecast, and rainfall forecast to be accessed through the Application.
- ix. Policy for local language options (as per schedule of language of GoI) in addition to English and Hindi language in the Application, and archival & retrieval of data/information needs to be worked out by a Sub-Committee. RMSI to provide relevant information within 2-3 days.
- x. The Sub-Committee to be constituted involving IMD to finalize features/content of the Mobile App./ Crowd Sourcing.
- xi. RMSI to provide comprehensive workshop cum hand-on trainings to designated Officers including Nodal Officer for Web-DCRA & DDS Tool of all 13 coastal States/UTs and the concerned Agencies/key Stakeholders on operation of Web-DCRA & DSS Tool, DCRA App., and exposure data updation.
- xii. With reference to SOP for Web-DCRA & DSS Tool, RMSI to expedite coordination with all 13 coastal States/UTs, and the concerned Agencies/key Stakeholders (IMD, INCOIS, NRSC) for nominating Nodal Officers for Web-DCRA & DSS Tool.

- xiii. There should not be logo/description of RMSI on the Web-DCRA outputs. It should have the logo / description of NDMA & IMD.
- 5. The meeting ended with thanks to the Chair and all the participants.

(Sanjay K Sharma)
Project Manager
NCRMP, NDMA

Annexure-I

MINUTES OF MEETING ON 'DEMONSTRATION OF DCRA APP., OFFLINE DESKTOP VERSION OF WEB-CRA AND OFFLINE EXPOSURE MANAGEMENT' HELD ON 25.01.2021 AT 11 AM AT IMD, NEW DELHI.

SI. No.	Name of Officials with Designation	Organisation
1	Sh. Samir Kumar	NDMA
	Dy. Project Director, PMU	
2	Dr. Sanjay K Sharma	NDMA
	Env. Specialist, PMU	
3	Dr. P Prasad	NDMA
	Project Coordinator, PMU	
4	Mr. Vijay Kumar Sharma	NDMA
	Manager (IT), PMU	50 200 W 500005
5	Mr. Anup Karanth,	The World Bank
	TTL & Sr. DRM Specialist	C01044100000000000000000000000000000000
6	Dr. Sunitha Devi S.	IMD
	Scientist 'E', Cyclone Warning Division	
7	Dr. D R Pattanaik	IMD
	Scientist 'F'	
8	Dr. Kuldeep Srivastava	IMD
	Scientist 'E'	
9	Dr. Shankar Nath	IMD
	Scientist 'E'	
10	Mr. Santosh Singh	IMD
11	Dr. T M Balakrishnan Nair	INCOIS
	Scientist 'G' & Head (ISG)	
12	Dr. PLN Murty	INCOIS
	Scientist 'D', TWG	1110010
13	Dr. G. Vijaykumar	Puducherry
	Nodal Officer	
14	Sh Abhay Yawalkar, IAS	Maharashtra
	Project Manager, NCRMP-SPIU	
15	Mr. Rajesh Sonune	Maharashtra
	Sector Expert, NCRMP-SPIU	1 Tanta a Sitta
16	Sumitava Mukherjee	West Bengal
	Project Manager, NCRMP-SPIU	West Bengar
17	Sh R K Abhinand	Karnataka
	Procurement Specialist, NCRMP-SPIU	Txurrutuxu
18	Dr. Sushil Gupta,	M/s RMSI
	Dy. Team Leader	IVD G TUVIOT
19	Dr. Indu Jain	M/s RMSI
	Asst. General Manager	1
20	Mr. Rajneesh Kumar	M/s RMSI
	Sr. Software Engineer	1.2022.00
21	Mr. Sachin Jalota	M/s RMSI
	Sr. Software Developer	
22	Ms Vijay Lakshmi	M/s RMSI
	Sr. Engineer	
23	Mr. Rakesh Chaudhary	M/s RMSI
	Sr. Engineer	
24	Ms Puja Kumari	M/s RMSI
	Sr. Engineer	112014101