

The EMI's Cross-Cutting Capacity Development (3cd) Program: Process of Implementation

By

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1. Introduction and Background

The Cross-Cutting Capacity Development Program (*3cd Program*) came into being as a response from the Earthquakes and Megacities Initiative, EMI, to the growing need of large urban environments, particularly in the developing world, to count with a model to engage and support local governments in a process to implement a disaster risk reduction agenda (DRR). The purpose is engaging local authorities, practitioners, researchers, and the community in general in planning activities for DRR ahead or in a pre-event situation to look into a strategy for response and recovery, preparedness, and mitigation for DRR.

In this model disaster risk management, DRM, is introduced as another city planning process in order to “mainstream” DRR within local functions and services, with the concept that DRM is not a separate issue, but rather a part of day-to-day business.

Focusing on local implementation and linking with the contribution of all active agents of society with the engagement of central governments and support of international community provides the basis for mainstreaming DRR within local institutions.

To facilitate this process, the 3cd Program offers a sound methodology and approach, a number of tools for DRM, and demonstrated experience through realistic applications¹:

- **Methodology:** Engage into a consensus plan of actions that strategically and progressively mainstream DRR within local and national institutions through the Disaster Risk Management Master Plan (DRMMP)
- **DRM Tools:** Megacity-specific tools are needed to raise skills of professionals and decision makers and to provide management and monitoring mechanisms for DRR. MEGA-Learn provides a menu that includes: internet accessible Megacities Knowledge Base, Map Viewers, Risk Sensitive Urban Planning training modules, and other distance learning courses in partnership with the World Bank Institute. In addition, a Megacities indicator System to monitor and guide policy implementation for disaster risk management.

Realistic application of the methodology and tools has been done in Istanbulbul, and

¹ For details see www.earthquakesandmegacities.org and www.pdc.org-emi

most recently in Metro Manila, Kathmandu and Mumbai, which allows the program implementation team improve the process and application through direct feedback from end users.

This paper summarizes the process of implementation of the DRMMP in the cities that typically takes between four to five years depending, among others, availability of previous studies on risk identification and assessment, accessibility to human and financial resources, and political leadership. This process encourages an active local participation by counting with a local support structure, building a coalition of stakeholders, holding enlarged consultation processes, and enhancing local capacity for DRM.

2. Implementation Process

Step 1 Assessment: Understanding the context

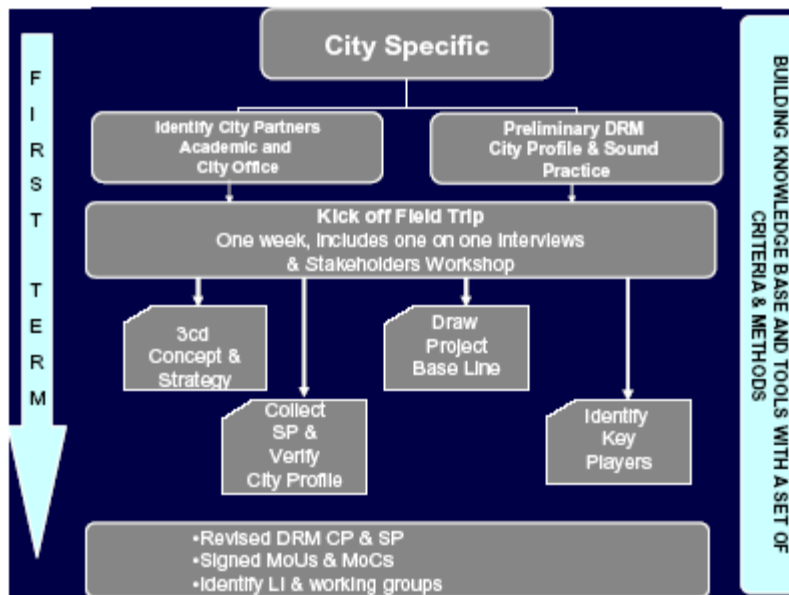


Figure 1. Implementation step1

Risk assessment and analysis is the first step that cities need to face in order to understand the magnitude of the natural hazards that can be expected in the city, the vulnerability of the exposed elements to that hazard, then undertake a damage assessment, and finally estimate possible human and physical losses.

Most of the cities in the world have completed this phase or have developed a good understanding of current situation, if so, the implementers can build in this knowledge and continue the process to identify how DRM is currently done.

Collecting, systematizing and analyzing current knowledge and practice regarding Disaster Risk Management at the city-level is how the 3cd Program approaches this learning process. What has worked, what needs to be revisited and how to improve the current situation are the cornerstones in this process. Understanding these factors will allow drawing the baseline or the foundations for the implementation of the 3cd program in each city.

Assessment of current sound practices on disaster risk management emerges as an interesting component of this phase. What cities consider being their highlights, why these particular sets of actions worked and how will they be maintained in the future provide insight into how DRM functions in the city. Can they be fully adopted or adapted by other communities at risk? What are the key attributes to think about regarding these practices and their potential for replication; what are their social cost-benefit parameters, and in fact, what are the determinants for success?

Which is the hazardscape of the city? Are there any vulnerability and risk assessment studies available? Have these been communicated to city stakeholders? Which are the technical groups which work in the city and which are their capabilities? Are there any risk transfer mechanisms in place?

Some of the most relevant areas for DRM that the implementers need to pay attention to are summarized below:

- Who are the main players? Institutions, organizations and actors, their roles and responsibilities, their motivations.
- What are the laws and regulations related to DRM which are in place? Do they facilitate the process or create bottlenecks? Have building codes been developed and enacted, and are there adequate enforcement mechanisms in place?
- Who is in charge of DRM in the city? What is the relationship between the city organization for DRM and other levels of government, including the national level? What is the local organizational structure, and what human and economic resources are dedicated to it.
- Consider issues related to governance, e.g. how many LGUs or districts comprise the city? What is the nature and effectiveness of intercity linkages? How are the urban planning, land use and development processes taking place? Is risk reduction a criterion used in land use and planning determinations? Do development plans incorporate prevention and mitigation concepts?
- How do city stakeholders identify their sound practices? Have they been synthesized or systematized? Who are the key informants?
- What is the involvement of the private sector and the community in local DRM practices?

To undertake this process and answer all these questions, the 3cd Program suggests the following main activities:

- **Literature search and initial survey of DRM.** Prior to initiating any activity, the implementation team should conduct preliminary research to find out basic information related to DRM in the city. Internet data mining, proceedings of workshops and conferences, and direct contact with local groups through an initial survey form prepared by the 3cd Program are good options for a preliminary DRM city profile and

identification of Sound Practices.

- **One on one interviews.** Carry out a series of interviews with relevant city officials, community leaders and academicians to understand the current DRM situation in the city and the impediments which are faced, and discuss mechanisms for improving DRM. The 3cd Program acknowledges the fact that the information which it requests is considerable, therefore no single individual will have the capacity to complete the whole form. The research team should identify key informants and pursue individual visits to progressively complete the information. The assistance of the local counterpart is particularly significant in this data collection process.
- **Stakeholder Workshops.** They constitute an important activity because they serve as the main mechanism for: 1) conducting initial discussions with city authorities and other key players to communicate 3cd Program agenda and receive required feedback, 2) raising awareness; educating policy makers and other key players regarding disaster risk management, 3) identifying main organizations and key points of contacts to accomplish fieldwork, 4) understanding the current disaster management practice, and 5) identifying and documenting examples of sound practice.

The stakeholder workshops should be designed as a joint undertaking by the city partners and the 3cd Program Implementation Team (PIT). The engagement and cooperation of local partners, including local policy makers, researchers, NGOs and other groups, is critical to the success of this task, as it is recognized that these tasks require inputs and insights from multiple perspectives and disciplines. It is strongly recommended to carefully document every workshop to keep record of the attendees, major findings, agreed next steps and commitments from different parties.

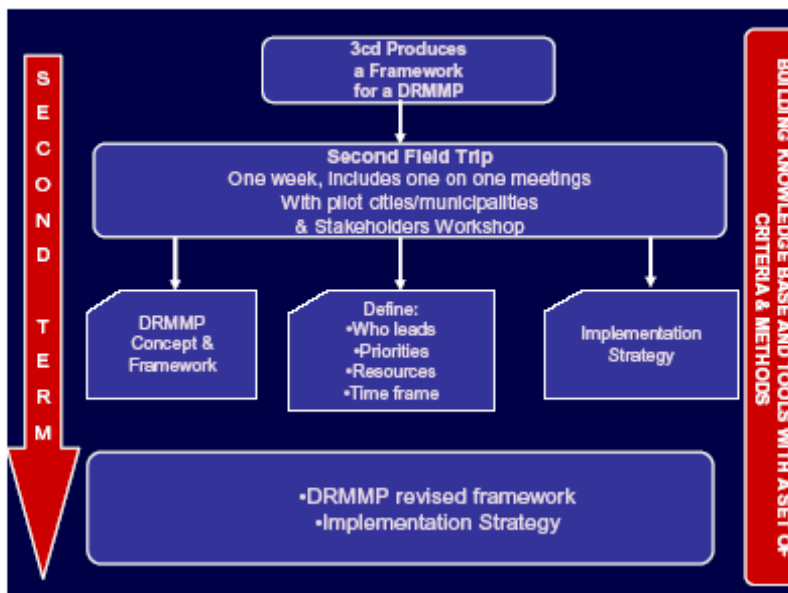
- **Establish program advocacy.** Gain high-level commitment and advocacy for development and implementation of a consensus action plan between the local authorities and the 3cd Program that will lead to development of a Disaster Risk Management Master Plan for the city.
- **Promote the use of Risk Communication Tools.** In particular, encourage the use of the internet based Megacity Disaster Risk Management Knowledge Base and the map viewers to make information available to different interested groups in the city. As part of this initial phase, the PIT should begin discussions on availability and accessibility of data and understanding local technical capabilities and GIS capacity.

The 3cd Program offers the following tools, available in attachment 2 of this Manual of Implementation, for implementers to facilitate the process and to standardize data collection for future analysis, evaluation and comparative analysis among participating cities:

- **Two part questionnaire.** The first part focuses on the DRM City Profile and the second one on the Sound Practices. The questionnaires are a first step in information gathering. They are expected to provide useful insights; nevertheless, broader perspectives and further details are required, which will only be achieved through direct contact with those who designed and/or were part of the experience being documented.
- **Documentation templates.** These ensure a uniform approach to writing up material pertaining to City Profiles (CPs) and Sound Practices (SPs) and are provided by the 3cd Program.
- **Stakeholder Workshop Evaluation Questionnaire.** The program has also designed a survey to evaluate participants' satisfaction, concerns and recommendations for future events.

Step 2 Empowerment: Preliminary DRMMP Framework and Implementation Strategy

Figure 2. Implementation step2



Based on the findings from step 1, it is advisable that the implementation team starts looking into possible actions that can be prioritized and organized as part of the DRMMP and its implementation process.

This is particularly relevant since most of major cities in the world count on a good understanding of the hazards they face and how they can impact often

vulnerable communities and its infrastructure². Most have produced risk maps and some count on plans for risk reduction, which

² Fernandez J., Bendimerad F., Mattingly S., Buika J., (2005), “Comparative analysis of disaster risk management practices in seven megacities” presented to the 2nd Asia Conference on Earthquake Engineering, ACEE 2006, March 10-11, Philippines

Introducing specific activities that can be initiated in the short run will contribute to raise the interest of involved parties, while a more traditional and long term planning effort is started to look at the essential components of a sound DRM system, which by and large requires to strengthening the legal framework and institutional capabilities is most of the cities as identified in Fernandez et al (2005).

The implementation team should be able to come up with an outline containing a set of actions items identified from previous studies and its own understanding of current and sound practices that city stakeholders may consider to initiate the discussions.

A second workshop is envisioned as the avenue to hold detailed discussions with the local partners, either the municipality or the local organization in charge of DRM activities, to expand the consultation process with city stakeholders and shareholders on the proposal for action introduced by the implementation team. It is also sought as the opportunity to initiate a planning exercise for the actual development and implementation of the DRMMP.

The workshop along with other specific meetings and discussions should be designed as part of a consensus building process that engages policy makers, practitioners, and the scientific and organized community in identifying strengths, constraints and opportunities to undertake the implementation of a comprehensive risk reduction plan, anchored in the social, political and economic realities of the city.

As a result of this initial consultation, the implementers will be able to identify major areas of interest through a prioritization procedure, identifying other activities that may be required or of interest of the city, spotting human and economic resources, designating leading actors and leading organizations, suggesting a strategy for implementation and drawing a time line for all these activities.

The purpose of this step is achieving local ownership of the process which main outcomes are expected to:

- Ensure institutional commitment & political feasibility
- Engage stakeholders; clarify their role and responsibility; and build their confidence
- Mobilize stakeholders through Focus Groups
- Promote collaborative work

- Use risk communication tools to engage stakeholders and build ownership
- Transmit DRMMP concept and its initial agenda

Step 3 Execute: DRMMP Implementation

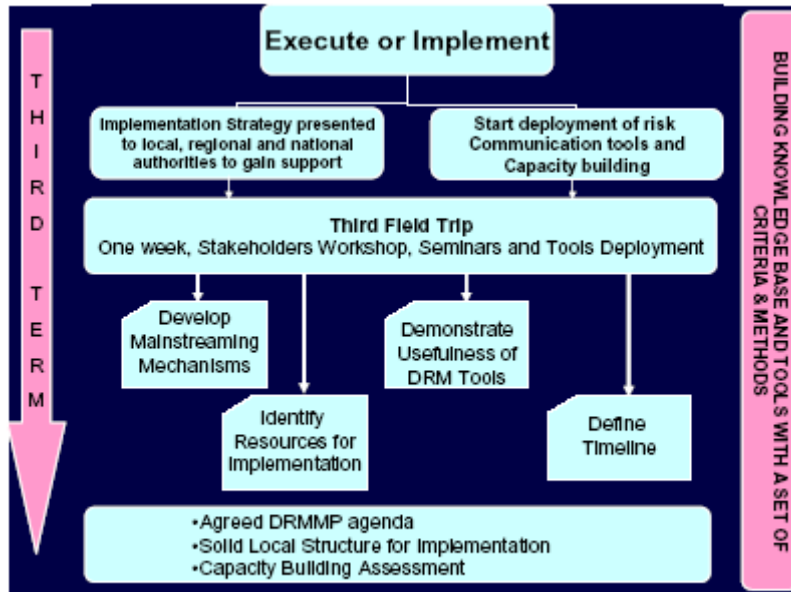


Figure 3. Implementation step3

From the experience gained in the field, completing the activities scheduled for steps 1 and 2, will typically take between 8 months to a year time, depending on the level of understanding, commitment of the authorities and city stakeholders and availability of resources to undertake this endeavor.

This third step looks into agreements reached among different actors in the city on

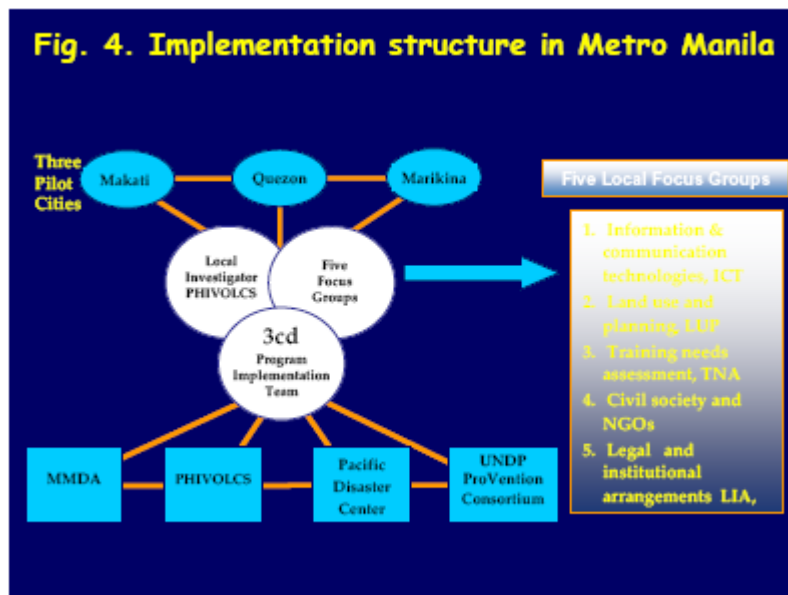
the most relevant areas that need to be boosted to initiate a dynamic and participatory process to design or update a DRMMP for the city. Seminars, workshops and meetings with a wide range of stakeholders are needed to consolidate a local support system that will assure ownership transfer from the implementation team to the local partners. Means for sustainability should be guaranteed by institutionalizing the efforts through MoC or MoU amongst relevant institutions and organizations at all levels.

Any risk communication tool developed under the auspices of the program should also be ready to be fully deployed and transferred to the end users. The 3rd program is typically promoting the development of internet based map viewers (MV), that are helpful to visualize disaster prone areas, map faulting systems, produce risk map scenarios and facilitate zoning options and land use and planning applications.

The expected outcome of this segment is to produce an agreed upon strategy and content of the city DRMMP, identify resources, timelines and mechanisms to initiate the implementation phase. Several interactions with a range of stakeholders, shareholders and local authorities may be necessary prior to fully initiate the implementation phase.

Step 4 Sustain

Setting local Focus Groups is the mechanism put in place by the 3cd Program to assure capacity building, knowledge transfer and long term sustainability. This mechanism will ensure that stakeholders are periodically brought together, that DRM knowledge is improved and applied, will further deepen ownership and assure future development and support.



Metropolitan Manila was the first city to initiate implementation of its DRMMP through the collaboration of the Metropolitan Manila Development Authority (MMDA), the Philippine Institute of Volcanology and Seismology (PHIVOLCS), the cities of Quezon, Makati and Marikina and EMI's 3cd Program along with its partners and sponsors, the

Pacific Disaster Center (PDC), the Earthquake Disaster Mitigation Center (Reduction (ISDR). To approach megacity complexities, the 3cd Program has defined a pilot city approach. Three cities out of seventeen comprising Metro Manila have joined the program in an effort that permits understanding the inter-city linkages, common issues and sound practices. EdM), Kobe University, the Hazard Management Unit of the World Bank, and most recently, UNDP, the ProVention Consortium and the International Strategy for Disaster

Five Focus Groups were established to undertake each one of the five major implementation work outputs or action agendas for the DRMMP: 1) Information & communication technologies, ICT, 2) Land use and planning, LUP, 3) Training needs assessment, TNA, 4) Civil society and NGOs, and 5) Legal and institutional arrangements LIA.

To illustrate some of the actions that these TGs are undertaking in Metro Manila, a list of their major accomplishments follows:

- a) Formal organization and composition of 5 FGs to undertake specific activities on the initial areas of development for the DRMMP. Definition of their main role, concrete action plan including their vision for their short, intermediate and long run;

identification of resources and leading teams.

- b) Initial training on the best options to incorporate risk reduction activities through regular planning exercises at the regional level, addressed to MMDA officials and another one on tools for risk reduction from the land use and planning perspectives, addressed to the directors and heads of the planning offices of the 17 Local Government Units (LGUs) comprising Metro Manila.
- c) Providing an “ideal type” legislation illustrating how current sound disaster risk management practices can be written into legislation and introducing a statement to embed disaster risk management into the Mid-Term Philippine Development Plan.
- d) Conducting an evaluation of current DRM training options in Metro Manila and assessment of specific needs to be implemented in the future.
- e) Discussing options to fully incorporate the private sector and the organized community in the efforts for risk reduction and mitigation at the urban level.
- f) Design and implementation on a internet-based map viewer for Metropolitan Manila, based on available information from previous studies and the deployment of a Megacity Disaster Risk Management Knowledge Base to share sound practices and city profiles.

Step 5 Monitor and Evaluate

This phase requires periodic review, oversight and advise from the 3cd Program Implementation Team (PIT) to introduce corrective actions whenever required, including planning of quaternary field trips. Also, feedback from stakeholders on every workshop and event organized in the cities is carefully looked for and incorporated.

Comprehensive evaluation that includes city partners, Focus Groups members, research partners and donors to understand the progress and set new long term objectives is also desired.

As an example of this interactive process the Metro Manila experience can be mentioned again. Table 1 shows and initial 10 action items suggested by the 3cd Program to the city stakeholders for their consideration, this was based on findings from step 1 and preliminary consultation. Through workshops, seminars and further consultation, five implementation work outputs (IWO), deemed the most urgent and practical were agreed upon.

Table 1. Initial 10-Point DRMMP action items proposed to MM

Action
1. Strengthen Metropolitan Manila Disaster Coordinating Council (MMDCC)
2. Promote Adoption of Disaster Management Ordinance by Each City and Municipality
3. Promote the reorganization and revitalization of city/municipal and barangay Disaster Coordinating Councils
4. Institutionalize Local Government Framework and Financing for Disaster Management
5. Enhance lateral and vertical inter-agency and inter-governmental communication and coordination
6. Enhance legal basis for disaster Risk management at national level by updating/ replacing PD1566
7. Promote policies that encourage implementation of disaster risk reduction measures; identify mechanisms for mainstreaming DRM into key city functions.
8. Promote local government mitigation planning through use of existing planning tools
9. Conduct training needs assessment and develop capacity building programs
10. Strengthen barangay level preparedness for disaster response and relief

The five Implementation Work Outputs for Metro Manila are:

- 1) Use of information and communication technologies for risk communication and awareness,
- 2) Incorporate risk reduction criteria in urban land use and planning,
- 3) Training assessment and capacity enhancement for DRM,
- 4) Mobilizing resources among NGOs and professional organizations for the DRM process, and
- 5) Improving legal and institutional arrangements for DRM delivery.

3. Implementation 101: step by step checklist



Following is a checklist that summarizes step by step the methodology described above. It is intended to serve as a useful tool for undertaking the development and implementation of a DRMMP in a megacity context.

Step 1 Assessment: Setting the Context

- a) Produce a draft version of the DRM City Profile. Use part one of the survey questionnaire provided on attachment 2 to gather initial feedback from different informants. At least one government official and an academic representative should provide initial insights. This information can be complemented with literature survey and internet search, looking for specific topics of the DRM components.
- b) Identify those projects, programs or activities that those city officials, practitioners, researchers or the community consider their Sound Practices. Produce an initial draft version of these SPs using part two of the survey provided in attachment 2. Use literature review and internet search to gain additional information on the specific activities/projects identified.
- c) Select a local organization with sufficient expertise in any relevant area of disaster risk management and appoint a local Investigator from within this organization, preferably the head of this organization.
- d) Identify the key organization in charge of DRM in the city, conduct initial contacts to inform about the purpose of the Program and have the head of this organization appoint his/her delegate for future contacts.
- e) To approach the complexities of the megacity, the 3cd Program suggest a pilot city/LGUs approach. It is convenient to identify them from the beginning and have a Point of Contact designated by the maximum authority, for example the mayor.
- f) Sign MOUs or MOCs as needed to formalize the partnership among all involved parties.
- g) Conduct a kick-off workshop with all identified partners to gain understanding, support and commitment for the next activities. An initial and very preliminary assessment of gaps and needs should be done, as the research team gets an initial sense of areas of concern and priorities acknowledged by the participants in these introductory activities. See section 5 for details on the launching workshop.
- h) Identify the Local Advisory Group and get them involved with the LI in the initial process of review, update and supervision of the City Profiles and Sound Practices.

Step 2 Empowerment: Preliminary Framework of a DRMMP

- a) Find out the knowledge gained through previous initiatives in the city and the level of implementation of their recommendations.

- b) Secure risk information related to major hazards.
- c) Conduct a gap analysis based on the findings from part 1. Current DRM practice, organization, and delivery should be put side by side with expected sound DRM practice as seen by the city stakeholders.
- d) Produce a preliminary set of action items that would progressively move the city and its stakeholders along the principles of the DRMMP, gain local ownership and buy-in from a broader group of stakeholders. This initial document should identify main actors, leading teams and organizations, resources and broad time lines for reference.
- e) Conduct a second stakeholder workshop, the main objective of which is to introduce the proposed DRMMP proposal, perform a feasibility analysis, set priorities among the action items proposed or identify new ones, suggest realistic resources allocation and timeframes, and designate the leading teams and organization. See section 5 for details of the second workshop.
- f) Produce a revised and realistic DRMMP framework and its implementation strategy, based on the stakeholders' perceptions on priorities, political viability, human and economic resources and a time frame for implementation.
- g) Encourage the use of risk communication tools among different actors. The 3cd Program promotes the design, development and use of GIS based map viewers and a Megacity Disaster Risk Management Knowledge Base, MDRM-KB (www.pdc.org/emi).
- h) Continue with the documentation and identification of sound practices and motivate local actors to document their own experiences, based on the appropriate templates.

Step 3 Execute: DRMMP Implementation Strategy

- a) Based on the insights gained through parts 1 and 2 in this process, decide on best areas of development, through specific activities that can consolidate the basis to develop a comprehensive DRMMP for the city and its implementation.
- b) Consolidate a local structure to provide support and carry out specific work related to the areas of development, for example organize local working groups or task groups to undertake the job. Through consultation and agreements, provide each task group with a clear cut of job descriptions, timelines, resources and appoint a coordinator or leader per area of development.
- c) Set meetings, workshops, seminars and other useful approaches to gain solid and widely spread support in the city, from multidisciplinary and inter-institutional groups. Keep them abreast and informed of specific activities of each one.
- d) Systematically and periodically remind the Task Groups of the big picture related to the implementation of a DRM in the city and how specific activities fit into the "big picture"
- e) Identify resources for the implementation phase
- f) Define general timelines
- g) Design and deploy specific training activities that will need to take place to enhance

the capabilities of different participating groups, so they can face the challenges of the implementation process.

h) Be aware that this phase will require several interactions.

4. Resources and Tools

Following is an annotated list of some of the available resources and tools to assist in the implementation of a disaster risk reduction process using a methodology which is currently being tested and refined based on real situations in megacities through the EMI's Cross Cutting Capacity Development (3cd) Program, accessible at www.pdc.org/emi

Title	Content
Megacity Disaster Risk Management Knowledge Base	A e-learning tool to facilitate exchange on DRM sound practice and understand current DRM organization in megacities around the world
Disaster Risk Management Master Plan (DRMMP), Concept Paper	A conceptual framework for developing and implementing a DRMMP at the city level, includes concrete applications in Metro Manila and Kathmandu
Survey of Disaster Risk Management Practice	A questionnaire helpful to identifying how your city currently deals with disaster management
Survey on Sound Practices for Disaster Management	A questionnaire to explore DRM initiatives that city stakeholders believe are worth sharing with others
City profile write-up template	Provides a for to write the DRM city profile
DRM City Profile template	An outline to synthesize information related to DRM organization and delivery in the city
Sound Practices write-up template	A model to ensure a uniform approach to writing up material pertaining to Sound Practices
3cd Monitoring and Assessment, Monthly report format	A standardized form to report progress and issues related to the implementation of the program

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