

RCC Guideline 6.1

Integrating Disaster Risk Reduction into School Curriculum

Mainstreaming Disaster Risk Reduction into Education



under the Regional Consultative Committee on Disaster Management (RCC) Program on Mainstreaming Disaster Risk Reduction into Development (MDRD)

Regional Consultative Committee on Disaster Management (RCC)



RCC Members: Government of Afghanistan, People's Republic of Bangladesh, Kingdom of Bhutan, Brunei Darussalam, Kingdom of Cambodia, People's Republic of China, Republic of Georgia, Government of India, Republic of Indonesia, Islamic Republic of Iran, Kingdom of Jordan, Republic of Kazakhstan, Republic of Korea, Lao People's Democratic Republic, Government of Malaysia, Maldives, Mongolia, Myanmar, Government of Nepal, Republic of Pakistan, Papua New Guinea, Republic of Philippines, Republic of Sri Lanka, Timor Leste, Thailand and Socialist Republic of Vietnam

Chair: People's Republic of China

Vice Chair: Republic of Sri Lanka

Phase I Partners:



Australian Government
AusAID



gtz



RCC Secretariat:



Asian Disaster Preparedness Center



Regional Consultative Committee on Disaster Management (RCC)

The Regional Consultative Committee on Disaster Management (RCC) was established at the initiative of the Asian Disaster Preparedness Center (ADPC) in 2000 and comprises of members who are working in key Government positions in the National Disaster Management systems of countries of the Asian region. To date, 26 countries are represented by 30 RCC Members from the Asia and Pacific regions, namely, Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, China, Georgia, India, Indonesia, Iran, Jordan, Kazakhstan, Korea, Lao PDR, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Sri Lanka, Thailand, Timor Leste and Vietnam. The Government of the host country of the meeting serves as the Chair of the RCC in the intervening period between two meetings and the Government of the host country of the next meeting serves as the Vice Chair of the RCC. Currently China as the host of RCC 6 is the Chair and Sri Lanka as the host of RCC 7 is the Vice Chair. ADPC serves as the Secretariat of the RCC.

RCC Program on Mainstreaming Disaster Risk Reduction into Development Policy, Planning and Implementation in Asia (RCC MDRD)

A key priority identified by the RCC is the integration of disaster risk considerations into development planning. To initiate action on this agreed direction, the RCC Program on Mainstreaming Disaster Risk Reduction into Development Policy, Planning and Implementation (MDRD) was launched at the 4th RCC meeting in Bangladesh in March 2004. The RCC 5 adopted the **Hanoi RCC 5 statement on Mainstreaming Disaster Risk Reduction into Development in Asian Countries** which prioritizes mainstreaming of DRR to be initiated in National development planning process as well as Sectoral development. It identified six priority sectors namely Agriculture, Education, Health, Housing, Urban Planning and Infrastructure and Financial services for mainstreaming of DRR. The program has five components for implementation (as described in the adjacent box); Component 1 involves developing Guidelines and Tools for Mainstreaming of DRR.

RCC MDRD Program Components (Phase I 2004-2007)

- **Component 1: Developing Guidelines and Tools for MDRD**
- Component 2: Undertaking Priority Implementation Partnerships (PIP) in MDRD in RCC Member Countries
- Component 3: Showcasing good practice on MDRD and Monitoring Progress
- Component 4: Advocacy for Building awareness and Political Support to MDRD
- Component 5: Mobilizing Partnerships for ongoing and sustainable implementation

The Hanoi RCC 5 statement identified the following sub themes within the Urban Planning and Infrastructure to initiate mainstreaming of disaster risk reduction:

- Introducing Disaster Risk Impact Assessments into the construction of new roads and bridges,
- Promoting the use of hazard risk information in land-use planning and zoning programs.

History of this Guideline

This Guideline is developed by the RCC for guiding the member countries to introduce disaster risk impact assessments into the construction of new roads.

For development of this Guideline a technical working group had been set up with experts from Department of Public Works and Highways (DPWH) and National Disaster Coordinating Council (NDCC) in Philippines, Central Road Research Institute (CRRI) in India, Mekong River Commission (MRC), World Wide Fund (WWF) and ADPC. The development of this Guideline had been supported by UN/ISDR and SIDA.

The content of the Guideline had gained tremendously from the experience of the Phase I (2006-2007) of the Priority Implementation Partnership (PIP) on the said theme in Philippines, which was implemented by the RCC MDRD secretariat in partnership with NDCC and DPWH with support from UN/ISDR and SIDA.

Comments Invited

Please send comments to ajrego@adpc.net and sanjayab@adpc.net.

A. Why teach Disaster Risk Reduction in School?

Numerous examples across the globe show that children are more vulnerable to disasters. But at the same time they can be influential and effective communicators about disasters. Often, lessons learnt at school are later transmitted to the home.

Box 1

Parents learn from children

Education authorities of Indonesia along with GTZ have developed materials and taught more than 33,000 school children about the causes and results of earthquakes, tsunamis and volcanic eruptions. The impact of this initiative was demonstrated at in May 2006, when an earthquake hit the Yogyakarta region of Indonesia. Although 5,000 people lost their lives, the figures would have been much higher had the children not learned at school what to do in the case of an earthquake, and had they not passed this knowledge on to their parents. The families sought protection in doorframes, under tables and under beds, and did not leave their houses until the quake was over. Such families escaped serious injury.

(Source: Disaster Reduction: Knowledge, Transfer, Practice, Proceedings of the 7th Forum and Disaster Reduction Day, 2006, GTZ)

An example is of the young Tilly Smith, who seeing the receding water before the tsunami could remember her geography lessons on tsunami and was able to save the lives of 100 tourists from a beach in Thailand in December 2004. There is another example, from Yogyakarta which highlights the value of children teaching their parents about 'What to do in case of an earthquake' (**Box 1**)

There are many other documented occasions when the safety of a family, or the protection of an important element of the household, has been traced back to a "safety lesson" learned at school. Thus introducing disaster awareness and risk reduction education in the school curriculum would foster better understanding amongst the children and the teachers about the immediate environment in which they and their families live and would help to reduce the risk faced by the community.

B. Initiatives in RCC member countries on integrating Disaster Risk Reduction into school curriculum

Page | 2

Different RCC member countries are at different stages in terms of integrating disaster risk reduction (DRR) into the school curriculum. Initiatives have already begun in countries like Bangladesh, Cambodia, India, Indonesia, Iran, Maldives, Lao PDR, Nepal, Pakistan, Malaysia, Philippines and Sri Lanka. In some cases like India, Disaster Management has already been integrated as part of Social Science subject in secondary education.

Similarly in Nepal, educational programs relating to DRR in the public school system cover students of 10-14 years age group. Disaster related topics are taught in Science, Environment and Social Studies subjects for grade 8 to 10 with floods, landslides, soil erosion, pollution and epidemic being the main focus.

In case of Pakistan the National Disaster Management Authority (NDMA) has engaged the Ministry of Education to include elements of DRR in the education system and to mobilise all stakeholders, including government, communities and the private sector, to ensure that DRR is fully integrated into school curricula.

In Bangladesh, disaster management chapters are included in the school curriculum of classes' 5 to 12. The Disaster Management Bureau (DMB) has introduced disaster management messages and awareness programs into primary and secondary school curricula up to grade 12. In 1997, the DMB was successful in mandating that all children from grades 6 to 8 be required to read a chapter on disaster management as part of the school curriculum.

But depending on the policy decision of the educationists of the country, often the method of integration differs from country to country. Sometimes DRR is integrated as an independent subject. Often the concepts of DRR are taught by combining with portions and specific chapters of other subjects such as environmental studies, geography, science, earth sciences, social studies, etc.

The following paragraphs provide some such examples from countries in the region where the process of integrating DRR in the school curricula has been initiated:

1. Disaster Management into School Curriculum of Class VIII, IX and X of Central Board for Secondary Education, India

The Central Board for Secondary Education (CBSE) in India has introduced Disaster Management (DM) as a part of the social science curriculum for standard VIII from the academic year 2003-2004, IX from 2004 – 2005 and

standard X from 2005-2006. The various activities taken up by the Board for achieving the target included; Module Development.

Circular on school safety, Awareness generation in form of painting competitions, exhibitions, debates and essay competitions and Development of Standard VIII, IX and X textbooks. The course content of the text book focuses on the following:

- For Standard VIII – Preparedness measures to be taken by students and teachers for various hazards;
- For Standard IX – On Mitigation measures; and
- For Standard X –Role of Government and other agencies in DM, Role of Science and Technology in DM and Initiating the concept of volunteerism among children.

For the Primary classes DM has been integrated in form of extra-curricular activities like Plays and Painting Competitions. Training of teachers on DM course curriculum has also been carried out. The CBSE has carried out an impact Assessment study of its textbooks in 1000 CBSE affiliated schools. Based on the feedback received from the teachers and students, CBSE intends to revise the current textbooks. Standard VIII textbook has already been revised based on the feedback, for the academic year 2008. The Ministry of Home Affairs has also directed the States to introduce DM in their school curriculum.

For more please refer: <http://www.cbse.nic.in>

2. Disaster Risk Reduction in Primary Education in Lao PDR

From 2001 to 2003, National Disaster Management Office (NDMO) and National Research Institute for Educational Sciences, Ministry of Education in Lao PDR, with support from ADPC and funding from DANIDA implemented the Disaster Reduction Program; DRP-CLV (under the larger program of the same name implemented in Cambodia, Lao PDR and Vietnam). The project looked into developing improved disaster risk communication strategies aimed at reducing community level disaster risk. The highlight of the project in Lao was the development of school curriculum for Grade 3, 4 and 5. Following project outputs were achieved.

- Development and production of textbooks on “Disaster Reduction” for elementary school grades 3, 4 and 5 (in local language as well as in English). The contents covered information on the causes, preparedness and what to do during a disaster. The disasters discussed are fire, flood, drought, pollution, road traffic accident and social disorder.
- Tested the textbook for a pilot of approximately 750 primary school children in 10 schools in the two most flood prone provinces of Khammoune and Savannakhet.

Similarly in 2007-2008 under the RCC Program on Mainstreaming Disaster Risk Reduction into Development, a Priority Implementation Partnership (PIP) was carried out in Lao PDR along with in Cambodia and the Philippines. The PIP implemented by Ministry of Education and NDMO in partnership with ADPC and UNDP and with support from ECHO, in Lao PDR particularly developed disaster risk management (DRM) curriculum modules for integration in Grade 7 of secondary school in subjects like Natural Science and Social Science. The DRM module also pilot tested in schools have been put forward to the Ministry of Education to be integrated in the national curricula. The Phase 2 of the PIP would carry forward the work in other grades of the secondary education.

3. School Based Disaster Risk Management in Sri Lanka

Following the 2004 Tsunami, in response to the expressed need to integrate DRM concepts in education system, and as the continuation of "Basic Education Sector" program of the Ministry of Education with collaboration with GTZ-Sri Lanka, the Government has developed a program for "School Based Disaster Risk Management" as a component of the program for "Education for Social Cohesion (2005-2010)".

In 2006 and 2007 key persons of the education sector have been trained in Disaster Safety Education, in cooperation with NIDM India and ADPC. They have started to infuse this new approach into curricula, teacher training and school programs. Co-curricular programs, which focus on skill development and practical exercises, have been integrated in pre-service teacher training. Teaching and learning materials have been developed. The project approach is to implement the activities under the following three areas:

- Development of a Teacher Training Curriculum for Disaster Safety Education.
- Training of Teacher trainers and teacher students on the new curriculum.
- Building a Culture of Safety; Awareness at school level and development of school level Crisis Management Plans
- The Project Activities for Integration of DRR into existing School Curriculum included:
- Design and development of Strategy Paper submitted to Ministry of Education for approval;
- Formation of an Advisory Group, with representatives from GTZ and National Institute of Education for the overall monitoring and evaluation of the project;
- Analytical Study of level of understanding of teachers and students on Disasters and their Risks;
- Conducting a series of One day consultative workshops;
- Formation of an advisory panel for curriculum development;
- Review and revision of existing school curriculum;
- Pilot testing in selected schools;

- Review and revision of Teacher's Education curriculums and Teachers' Guides (teaching materials);
- Conduct base line and impact surveys at National Colleges of Education and Schools;
- Assist in training of education officers, teacher educators and teachers;
- Support the production of teaching and learning material for the new DRM curricula;
- Support the integration of DRM in teacher training and school curricula;
- Facilitate the introduction of disaster safety practices and skills;
- Conduct pilot school safety programs in cooperation with Disaster Management Center and ADPC and introduce a school safety module for principals;
- Introduce DRM through project-based learning in schools;
- Support Awareness Creation on DRM for schools and communities.

4. What's the Plan Stan in New Zealand

In New Zealand, the Ministry of Education provides curricula and guidelines to school management on how to plan and manage emergencies. Local civil defense personnel are responsible, along with all emergency services, for the running of community safety programs in schools. "What's the Plan Stan" is an initiative by the government of New Zealand which aims to support teachers to develop the students' knowledge, skills and attitudes to respond to and prepare for an emergency. The students are taught about disasters in the Health, Social Studies and Physical Education subjects. The intentions are that the students will be able to demonstrate simple practices to keep themselves safe at school and home. Other than the curriculum resources, following resources are also devised for use in primary and secondary schools (1) Simulation and Practice Activities, (2) Disaster Activities and Fact Sheets (3) List of References and Templates to be used by the teacher.

(For further detail visit

<http://www.whatstheplanstan.govt.nz/mcdem/index.html>)

C. Mainstreaming Disaster Risk Reduction into School Curriculum: Key Approaches

Page | 6

Key Approach 1: Creation of Awareness and commitment at the level of National Sector Institutions and Policy Makers

There is need to accomplish “buy-in” of the need for integrating DRR in the education sector, before beginning any activity. In the PIP implemented in Lao PDR, Cambodia and the Philippines under the RCC MDRD Program, the methodology adopted was to have a Technical Working Group established, with representatives of the key stakeholders, both from Government (especially the Pedagogy Development Department) and the Non-Government sector. This group was set up by a government order. As a second step, this group was given detailed orientation on DRR and why it is needed in the education sector. These steps ensured awareness about DRR amongst the key government stakeholders. **Box 2** provides an example from the Philippines where the Department of Education has issued orders for integration of DRR into the school curriculum.

Box 2

Department Order on Mainstreaming DRR in the Education System in the Philippines

‘Prioritizing mainstreaming of disaster risk reduction in the school system and implementation of programs and projects relative therefore’ has been passed as an order by the Undersecretary, Department of Education in the Philippines in August 2007. The order prioritizes the preparation of the DRR Resource Manual which will serve as source of information to be used by school administrators, school heads/principals, supervisors and teachers relative to the implementation of DRR projects. The Order also calls for Implementation of Safe Schools Programs relative to DRR with efforts including developing secondary school curricula, school mapping exercise, school water and electrical facilities assessment project, preparation of disaster preparedness modules through multi-media, quarterly conduct of earthquake and fire drills and road safety education for children.

Key Approach 2: Plan in advance of the National Curriculum Development Cycle

In every country the curriculum revision exercise is repeated every few years. The cycle of revision usually varies from 3 to 5 years. The Department of Curriculum (or Pedagogy) within the Ministry of Education is responsible for curriculum revision. The revision is conducted over a number of years grade by grade. The actual process of revision is a long process and starts a year before the actual revision takes place, for each grade. Any new curriculum, whether it is a new subject or a revised content of the existing subject, can only be taught from the beginning of the new cycle and once approved by the Ministry of Education. (See **Box 3** for e.g. of Cambodia)

Hence in order to successfully integrate DRR into the national curriculum system, the beginning of the new curriculum cycle is the best stage to commence activities.

Thus, it is essential to be aware of the National Education Policy and the curriculum revision cycle, and plan ahead, so that necessary steps can be taken to introduce DRR concepts to the curriculum development board before or during the actual revision phase. This would provide enough time for the concerned agencies to develop a relevant curriculum related to disasters, train the teachers and also pilot test the curriculum so that any necessary revision could be carried out before the curriculum is actually adopted for teaching nationwide.

Training is crucial. The experts, who are involved in the revision of curriculum, should be trained on DRR issues so they can develop a relevant curriculum. They should be able to draw on examples from different countries in the region and elsewhere.

Another key issue is that any change in curriculum has budgetary implications. Change in the curriculum results in increase in teaching time and increase in corresponding costs of teaching and printing of textbooks. An ideal plan would provide the curriculum revision board with sufficient time to place the revisions in forthcoming education sector plan, so that budgetary arrangements are in place to cater for the increase in teaching costs necessitated due to the revision of the curriculum.

Box 3

Curriculum revision in Cambodia

The core school curriculum for Cambodia has been developed in the year 1996 and in 2004 the ***Pedagogical Research Department*** (under the Ministry of Education Youth and Sports), the national agency responsible for preparing the School Curriculum, has prepared the ***'Policy for Curriculum Development 2005-2009'*** which states the policy for upgrading and improving the 1996 core curriculum. This policy has been designed for a period of five years 2005-2009 and will be reviewed in 2009 for another five years i.e. for the period 2010-2014.

Key Approach 3: Establish Partnerships between Ministry of Education and NDMO

The National Disaster Management Office (NDMO) is the national agency mandated with the task of DRR. Though in most of the RCC Member countries the Ministry of Education is usually a member of the NDMO and the National Disaster Management (DM) policies do provide a definite role for the Ministry, their involvement is usually restricted to disaster response, particularly in schools acting as emergency shelters during a disaster. (**Box 4**)

It is essential to ensure that the National DM policy highlights the need for integrating DRR into the national curriculum and assigns the responsibility to the Ministry of Education.

Though the process of integration led by the Ministry of Education, the NDMO should provide technical support to the Ministry as well as help in sourcing funds to initiate the process. This is of particular importance because financial resources are often a constraint for the Ministry of Education to take up such integration against other competing sectoral priorities.

In the entire process, the NDMO could also play a vital role in advocating for the integration of DRR into the education curriculum and help generate *political will* in initiating such integration.

This approach has been adopted under the Priority Implementation Partnerships (PIP) in Cambodia, Lao PDR and the Philippines on Mainstreaming DRR into the Education Sector, being implemented the Ministries of Education and NDMOs in partnership with ADPC, UNDP and ECHO.

Box 4

Roles for MoEYS related to DM in Cambodia

The Policy Document of the National Committee for Disaster Management states the following tasks for the Ministry of Education, Youth and Sports (MoEYS):

- Establishing an Emergency Management Unit in the Ministry which is responsible for developing and administering policy and which supervises the emergency-related activities of the departments, bureaus, offices and agencies under it, as well as all other institutions and agencies working in the sector.
- Establishing national policy, operational plans, training curricula and material as well as guidelines for damage and needs assessments to be conducted by agents working in the sector.
- Organizing Emergency Response Teams in all schools, institutions of learning and educational establishments.
- Making school buildings in the affected areas available as evacuation centers.
- Assisting in the public education campaign through integration in the school curricula of subjects related to emergency management, hazards and precautionary measures

(Source: Policy Document, NCDM, 1995)

Key Approach 4: Adopt a consultative process

The need for partnership between Ministry of Education and NDMO in order to successfully integrate DRR into school curriculum has been highlighted. Of equal importance is the need to build a consensus and adopt a consultative process by involving key agencies who are involved in development of the education sector plans.

This reiterates the need to involve key national agencies such as Ministries of Planning and Finance since the whole process of curriculum change is linked to the development plan and the budget of the nation. Consultations should also be completed with specific national hazard related technical agencies and research institutes.

Apart from the national agencies, there are various international agencies like UNICEF, UNDP and UNESCO, technical agencies like GTZ, and donors such as ECHO, JICA, AusAID, USAID, ADB, World Bank etc. who are specifically involved in education sector development. Involvement of the civil society along with non-government organizations such as the Red Cross Society is a must as they are often involved in educating communities on DRR.

This broad approach of consultative process is adopted in the PIP in Cambodia, Lao PDR and the Philippines and **Box 5** provides details on the working groups formed under the project in each country to integrate DRR into the school curriculum.

Box 5

Constitution of technical working groups in Cambodia, Lao PDR and the Philippines to integrate DRR into school curriculum

Cambodia: Ministry of Education, Youth and Sports (MoEYS), National Committee for Disaster Management (NCDM), Pedagogical Research department, MoEYS, Education Sector Support Project, MoEYS and UNDP- Cambodia

Lao PDR: National Research Institute for Educational Science (NRIES), MOE, Office of National Disaster Management Office (NDMO), Save the Children, Australia, and UNDP- Lao PDR

Philippines: Department of Finance, Department of Education (DepED), National Economic Development Authority (NEDA), Public safety and Emergency Management office, MOP, Office of National Disaster Coordinating Council (NDCC) and UNDP- Philippines

Key Approach 5: Link with processes of the Education sector programs funded by the multilateral and bi-lateral agencies; and the Education sector Working Group led by Ministry of Education

Countries have a number of projects for development of curriculum, construction of schools, publication of textbooks, etc. These may be projects in the pipeline or on-going projects. An opportunity would be missed if any new activity is done by a country without integrating DRR concerns. For e.g. JICA has funded development and printing of textbooks in Cambodia. Such projects can be an opportunity to ensure integration of DRR concepts in the textbooks before the printing. The benefit from a program can be enhanced in this manner. **Box 6** provides some examples of Education sector programs funded by bilateral and multilateral agencies.

Often projects are implemented in selected provinces and districts by multilateral and bilateral agencies. A component of this project may focus on communicating DRR concepts to school children. This can be an opportunity to experiment with curriculum development and to test a curriculum which has been developed in these areas. E.g. Save the Children Australia has planned school based activities in selected schools in Sayaboury Province of Lao PDR under the LANGOCA project. Under the ongoing PIP in Lao PDR the DRM curriculum has been developed and Training of Teachers was conducted in September 2007. During the training two teachers from Sayaboury under the LANGOCA project also participated. It has been discussed with Save the Children some activities for the curriculum would be developed under LANGOCA. This is another example of tapping the potential of another program to magnify the benefits.

Box 6

Education Sector Programs- a window of opportunity

Education Reform in Mongolia

To support education reform, ADB has helped finance the Education Sector Development Program in Mongolia to match the changing requirements of an economy in transition from central planning to market-oriented system. To attain this objective, the program aims to upgrade the quality, performance, and sustainability of the education sector, and improve educational management capacity. The investment project helped (i) strengthen education management and capabilities at central, local, and institutional levels (ii) improve coordination of management and academic development in higher education; and (iii) upgrade quality and relevance in educational content at upper secondary and higher education levels. Integration of DRR at this stage is an opportunity to enhance the impact of the ADB project.

Curriculum development in upper secondary level, Lao PDR under JICA program

From November 2005 to 2009 JICA is developing curriculum for higher secondary level in Science and Mathematics and developing teacher's guideline on these module guided by Japanese consultant and researcher who are members of Japanese secondary school curriculum development team in Mathematics and Science. In close collaboration with Ministry of Education, JICA had planned to upgrade Math and Science curriculum for Grade 10 in Lao PDR. Integration of DRR concerns at this stage could help double the benefits from the investment from JICA.

D. Suggested steps for undertaking Priority Implementation Partnerships (PIPs) for mainstreaming DRR into school curriculum (Year 1 and 2)

The following steps are suggested for a successful integration of DRR into school curriculum. The process draws on lessons learned from past experiences of RCC member countries who have successfully integrated DRR into school curriculum and particularly from the on-going process in Cambodia, Lao PDR and the Philippines, under the PIP on Mainstreaming DRR into Education, being implemented under the RCC MDRD program.

Step1 Initiating Dialogue between NDMO and National Institute of Education and its Curriculum Development Department, Ministry of Education

It is advisable that the NDMO establishes communication with the Ministry of Education, and particularly with the national agency responsible for the development of school curriculum. A workshop could be organized under the leadership of the NDMO for the officials from Ministry of Education to introduce the topic and get their consensus on the process. The main outcome of the workshop could be a formal memorandum of understanding (MOU) to set out the objectives, scope and expected outcomes of the partnership between the NDMO and the Ministry of Education and to identify the members of the technical working group.

Step2 Formation of Working Group and Advisory Group

Based on the MoU between the NDMO and Ministry of Education, it is advisable to set up a technical working group with members from the Department of curriculum development of Ministry of Education, NDMO and other relevant technical agencies involved in curriculum development and DRR.

It is also advisable to form an Advisory Group, chaired by a senior representative of the Ministry of Education to oversee and guide the process. The advisory group should be represented by staff from all concerned government agencies like NDMO, Ministry of Planning and Finance, Ministry of Health, Ministry of Sports and Youth, Ministry of Transportation, Research and academic institutes, hazard specific technical agencies and other stakeholders involved in education sector like UNICEF, UNESCO, development agencies and banks, NGOs and the Red Cross Societies. It could be an education focus

sub-committee of NDMO or a disaster related subcommittee of the Education Sector Working Group.

Step3 **Priority Implementation Partnership (PIP) Kick off Meeting**

The process could start with organizing a kick off meeting of the technical working group as well as the advisory group. The meeting would provide guidance in detailing out the work plan of the working group, assign responsibilities for agreed actions and proposed target dates for their achievements.

It is also essential at this stage to map out the various past initiatives in DRR in the country to avoid duplication and learning from the experience. The possible key points to be discussed at the project kick off meeting are highlighted in **Box 7**.

Review of the action plan, analysis of successes and failures, and adjustments of targets in the light of lessons learned would then be the regular business of the advisory group.

Box 7

Key points for discussion at PIP kick-off meeting

- DRR to taken up as a new subject or integrated in existing subjects?
- If to be integrated in existing subjects, which are the possible subjects?
- What should be the target grades for initiating the process? Do we adopt a phased approach of introducing in one grade at a time?
- What is the time line of the curriculum revision cycle and the planned activities under it?
- Are we keeping in mind the annual school calendar while designing the work plan? The time of school vacation is often the best time to get involvement of the school principals and teachers and the exam time often not an ideal time.
- What impact would the integration have on the provincial and district system of education in terms of budget, staff capacity and what necessary actions should be taken to facilitate the process, in terms of capacity building of teachers
- Align the work plan in close dialogue with the Department of Planning under the Ministry of Education since they are responsible for developing the annual education development plan

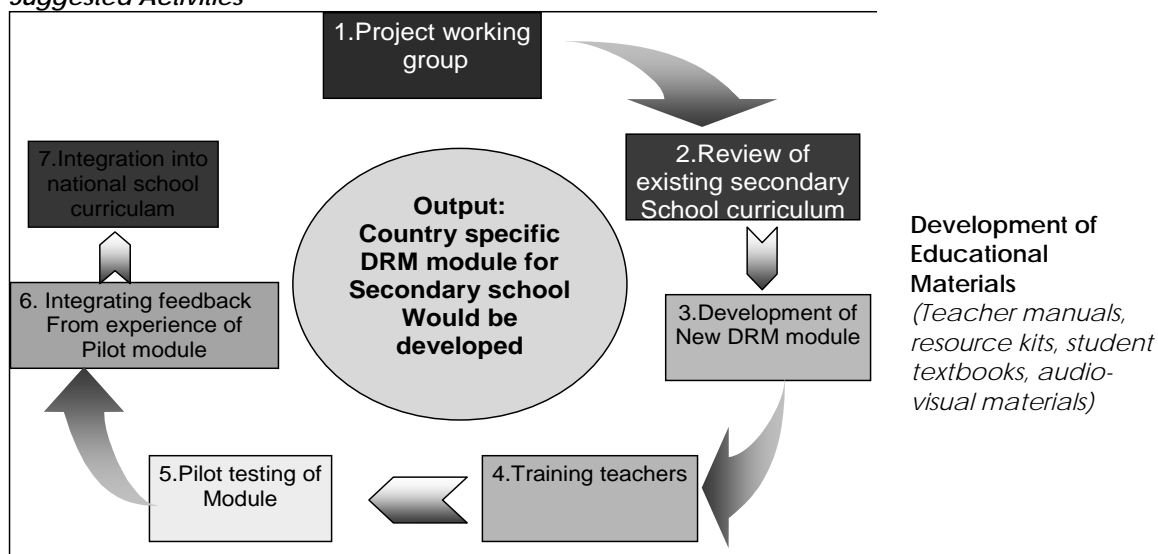
Step4 Develop and test the draft curriculum

The technical working group would carry out the activities according to the work plan. **Box 8** shows suggested activities to achieve the objective of integration.

Box 8

Page | 13

Suggested Activities



Step 4a Review existing curriculum

The first task would include reviewing the existing school curriculum and arrive at a consensus on which grade and subjects to integrate DRR.

Step 4 b Develop new DRR subject/module

Based on the review the project working group would develop either the new DRR subject or a module for integrating DRR in existing subjects. During this stage it would be helpful to consult with other RCC Member countries that have successfully carried out such integration and review their curriculum material. **Box 9** provides details from the ongoing project in the RCC member countries of Cambodia, Lao PDR and the Philippines, where the DRR integration is taking place in the curriculum.

Box9

DRM Modules developed in Cambodia, Lao PDR and the Philippines

Lao PDR: 9 chapters on DRM have been developed for integration in two subjects of Grade-7; Natural Science and Social Science. The chapters include; Hazards and Disasters, Landslides, Earthquakes, Floods, Drought, Fire, Pollution, Road accidents and Civil unrest.

Cambodia: DRM module integrated into Grade- 8 in Geography and Earth Science and the main chapters includes Floods, Drought, Tsunami and Deforestation.

Philippines: The DRM module is integrated into 3 chapters with 12 lessons in Science, and 4 chapters with 16 lessons into Social Studies in the Grade 7. The main chapter covers; Soil Erosion, Natural Hazard, Climate Change, Civil Unrest, Civil Disorder and Family Disaster Plan

Step 4 c Training of teachers

Once the draft subject/module is developed, a selected number of teachers from various parts of the country should be trained in teaching the new subject/module. Teacher's manuals should be developed for training the teachers. The teachers could be from the schools selected for testing of the curriculum, and also from other schools and the national teachers training institutes. The latter could be trained as Master Trainers.

Box 10

Training to be conducted among the following on teaching the DRR module

- Teachers from selected grade,
- School principals and School directors,
- Officials from Provincial and District Department of Education,
- Officials from teacher's training center,
- District pedagogical advisors.

Apart from the teachers it is also essential to train relevant officials from various levels of Ministry of Education and other concerned agencies. **Box 10** provides a suggested list of agencies to be involved in training.

The key point to be remembered while planning a training of the teachers would be to be aware of the school calendar. Often teachers are most busy during the time of the regular school semester and particularly during the time of examinations. Perhaps a time of school vacations should be targeted for organizing such training.

Step 4 d **Pilot test of the DRR subject/module**

The draft subject/module developed should be tested in a cross section of schools from where the teachers have been trained. The testing should be synchronized with the school annual calendar.

The testing of the draft subject/module should be done over a few months, giving enough time for the students to grasp the content. It would also allow the teachers to analyze the gaps in the subject/module, related to contents, structure, effectiveness in reaching out the message to the children, as well as practical problems in terms of teaching hours, text books etc. The teachers can also develop activities for the students in the available time.

At the end of the testing, there should be an evaluation of the draft curriculum and the teaching by the teachers. The students can be involved in quiz, story writing, essay writing, painting competition, etc. to evaluate how well they have understood the lessons on DRR. Based on the suggestions from the evaluation, the contents of the subject/ module should be revised.

Step 5 **Work with the curriculum developer and review committee**

It is suggested that the technical working group works closely with the curriculum developer and the National curriculum review committee, so that in the next curriculum revision cycle the new DRR subject/module could be taken up for integration.

Step 6 **Integration of the DRR subject/ module into the national curriculum**

To achieve the final leg of integration, the first task would be to attain the approval of the advisory group on the revised subject/module. Also it is to be ensured that budgetary provision has been made for adopting the new subject/module, and all related approvals (from relevant departments of Ministry of Education such as Planning and Finance, Local Government, NDMOs) are obtained.

Apart from the steps mentioned, there are a few crucial steps which need to be carried out parallel to other activities. **Box 11** provides some of these steps.

Box 11

Few crucial steps to do parallel to other activities

Consultations: During the integration of the DRR curriculum, several consultative meetings should be organized at different stages to seek input from stakeholders like relevant UN Agencies, NGOs, technical institutes etc.

Documentation: It is extremely important that the entire process of developing and integrating the DRR curriculum/module be documented and shared with other RCC member countries, which would guide them on taking up similar action.

Sharing/exchange information: By conducting advocacy workshops in project countries to orient the officials from Ministry of Education and other related Ministries, to advocate for mainstreaming of DRR into policies, planning and implementation of Education sector. These workshops could be attended by representatives of other countries where the task of integrating DRR into the curriculum has been accomplished, is in process or is being contemplated. Wide participation in the workshops would facilitate sharing of information and synergizing efforts.

Step 6a Integration of DRR curriculum in pre-service teacher training institutions:

Include in PIP; create coordination between School Development and Teacher Training, between Curriculum developers and Material developers, between In- and Pre-Service training structures. The training module for teachers, which has been developed for the pilot schools, could be refined and adopted by the teachers training institutes at the national and provincial levels.

Step 6b Integration of co-curricular programs for complementary skills development and practical exercises:

This could include activities such as School Emergency Planning; Mock drills; teaching DRR to Scouts and Girl Guides, development of CD games, activity books, coloring books and other material which can support the curriculum.

Step 7 Assessments of Behavioral Changes of Student after introduction of DRR into Curriculum

Some studies and evaluation is needed to document the change in behavior following the teaching of DRR. This can be done after a few months of teaching.

E. Long-term activities on the PIP essential for institutionalization

The following activities are essential for institutionalizing the integration of DRR into the national curriculum:

Collaborating and developing partnerships

It is important to increase inter-ministerial co-ordination for better functioning of the activities. In this regard NDMO and Education of Ministry can take initiatives for enhancing co-ordination of inter-ministerial as well as intra-departmental activities.

Collaboration and partnerships should be developed with specialized local or international NGOs/CBOs, UN Agencies, and bilateral agencies who have been working in the Education sector of the country. **Box 12** provides a partial list of agencies involved in education sector of Cambodia, Lao PDR and the Philippines and **Box 13** provide details of specific agencies working in Lao PDR.

Box 12

Partial List of agencies involved in Education sector in Cambodia, Lao PDR and the Philippines

Cambodia	Lao PDR	Philippines
National Committee for Disaster Management (NCDM)	National Disaster Management Office (NDMO)	National Disaster Coordinating Council (NDCC)
Ministry of Public Works and Transport (MPWT)	Ministry of Public Work and Transport (MPT)	Instructional Materials Council Secretariat-Philippines (IMCS)
	Ministry of Social Welfare (MSW)	National Economic and Development Authority (NEDA)
Ministry of Education, Youth and Sports (MoEYS)	Ministry of Education (MOE)	Department of Education (DepEd)
Department of Planning, MoEYS	Department of Planning, MOE	Department of Finance, Dep Ed

Department of Finance, MoEYS	Department of Finance, MOE	Department of Planning, DepEd
Materials and State Assets Department, , MoEYS	Curriculum Adoption Committee (CACIM), MOE	Physical Facilities and School and Engineering Division (PFSED), DepEd
Department of Teachers Training, MoEYS	Department of School Construction, MOE	National Educators Academy of the Philippines (NEAP) and Teacher Education Council (TEC)
Department of Secondary Education, MoEYS	Department of Secondary Education, MOE	Secondary Education Division, DepEd
Department of Pedagogical Research, MoEYS	Department of Teachers Training, MOE	Regional Offices of DepEd
National Curriculum Committee (NCC), MoEYS	National Research Institute for Educational Sciences, MOE	
Provincial Offices of Ministry Education, Youth and Sports	Provincial Departments of Ministry of Education	
UN Agencies: UNICEF, UNDP, UNFPA, UNESCO	UN Agencies: UNICEF, UNESCO, UNDP, UNFPA, WHO	UN Agencies: UNICEF, UNDP, UNESCO
Donors and NGOs: JICA, ADB, World Bank, EC, USAID, Save the Children Norway, Save the Earth, Oxfam	Donors and NGOs: JICA, AusAID, GTZ, KOICA, ADB, World Bank, MRC, Save the Children – Australia, Lao Red Cross,	Donors and NGOs: GTZ, JICA, ADB, Save the Children Federation, World Vision, Plan International, CARE,

America, LWF, Plan Cambodia, Concern Worldwide, ZOA, Danish Red Cross, Cambodia Red Cross, Action Aid.	Concern, Oxfam Australia.	CDP, Oxfam UK, Earthquake and Mega cities Initiatives (EMI).
--	---------------------------	--

*Box 13***Agencies involved in Education sector in Lao PDR with specific themes**

Agencies	Involvement in specific themes related to the School Curriculum
UNICEF, WHO, UNFPA (support by JICA)	HIV/AIDS, Hygienic and Life Skills curriculum (primary education)
UNFPA & UNICEF	Population education, Geography, Civil unrest, TOT, Natural Science Biology curriculum (secondary education)
JICA	Science, Math, Physics, Biology curriculum (upper higher education, G-10)
World Bank	Technical Assistant (primary & secondary education)
Lao Red Cross and Ministry of Social welfare	Community-based curriculum
Lao environment & Social Project (Lens) under PM office	Environment related curriculum (primary & secondary education)
Save the Children Australia (SCA)	Disaster Risk Education for Children, their families, teachers and their community.

Capacity Building

This is the key to sustainability of this initiative of integrating DRR into school curriculum. It is a well documented fact that teachers in most countries are usually over burdened with the existing curriculum and the limited resources in terms of salary as well as for teaching aids. Hence it is extremely important to build additional capacity for the teachers so that the DRR curriculum/module

does not become a burden. Hence regular trainings for teachers need to be carried out along with orientation workshops and advocacy campaigns for the education community as a whole. This is particularly useful for teachers at the provincial, district and village level schools.

It is also essential to review the existing teaching aids (teaching manual, instructors guide, text books, work books, student activities, etc.) and make necessary changes so that the aids facilitate the teachers in delivering the curriculum.

Monitoring and Evaluation

This is perhaps one of the most difficult tasks but an absolute MUST to achieve the ultimate goal of integration. One simple process could be to develop a checklist of the key activities mentioned above and to monitor the progress against each activity. However such a list would only help to monitor the outputs against each activity and not really the outcomes.

One of the challenges to be faced by the agencies would be to develop performance indicators for monitoring and evaluation of the impact of the initiative. In this regard, it is essential to remember participatory monitoring techniques involving the communities can be of great value.

It is suggested to form a monitoring and evaluation (M&E) team with members from the technical working group and advisory group, who would be responsible for developing the M&E Framework. The increase in the level of knowledge about DRR amongst the children could be monitored through questionnaires at various intervals. In addition a school safety week could be conducted at the end of the teaching activities for the final evaluation of transfer of knowledge.

Expanding and Linking to the National Education Development Plan and to the National Disaster Management Strategic Plan

If the DRR curriculum/module is initially developed for a particular grade/s it would be required to expand it to other grades of the school by developing similar contents relevant to the level of each grade.

This whole process of DRR curriculum adoption should be ultimately linked to the curriculum revision process (hence undergoing review and revision in each cycle) and to the Education Sector Development Plan of the RCC member country.

List of themes of Guidelines being developed and Priority Implementation Partnerships

under the RCC Program on Mainstreaming Disaster Risk Reduction into Development Policy, Planning and Implementation in Asia (RCC MDRD)

1. Mainstreaming DRR in the National Development Planning Processes

- 1.1 Mainstreaming DRR into the National Development Plan
- 1.2 Mainstreaming DRR into the National Poverty Reduction Strategy
- 1.3 Developing and Implementing the National Disaster Risk Reduction Plan with inputs from all Relevant Ministries and Agencies
- 1.4 Mainstreaming DRR into In-Country Assessments and the Multi-year Program Framework of International Development Agencies
- 1.5 Institutionalizing of Community-Based Disaster Risk Management in Government Policy
- 1.6 Mainstreaming DRR into the National Environmental Impact Assessments for New Development Projects
- 1.7 Mainstreaming DRR into the National Adaptation Plan of Action (NAPA) under the UN Framework on Convention for Climate Change

2. Agriculture

- 2.1 To promote effective programs of contingency crop planning to deal with year to year climate variations.
- 2.2 To promote effective programs of crop diversification including the use of hazard resistant crops, to deal with shifts in climate patterns
- 2.3 To ensure sustainable livelihoods in areas of recurrent climate risks (i.e. arid and semi-arid zones, flood and cyclone prone areas) by promoting supplementary income generation from off-farm (e.g. animal husbandry) and nonfarm activities (e.g. handicrafts).
- 2.4 To promote effective insurance and credit schemes to compensate for crop damage and losses to livelihoods due to natural hazards

3. Urban Planning and Infrastructure

- 3.1 To incorporate disaster risk assessments as part of the planning process before construction new roads and bridges
- 3.2 To promote use hazard risk information in Land-use planning and zoning programs

4. Housing

- 4.1 To promote hazard-resilient designs (e.g. flood proofing or seismic safety) in rural housing in hazard-prone areas
- 4.2 To promote utilization of national building codes that have special provisions for enhanced design standards for buildings in areas affected by natural disasters
- 4.3 To promote compliance and enforcement of local building laws that requires standards prescribed in building codes in urban hazard-prone areas

5. Health

- 5.1 Project to assess hospitals that are located in hazard-prone areas, analyse the internal and external vulnerability of health facilities during emergencies and increase the standard resilience to these hazards- building / functioning
- 5.2 Develop and implement Hospital
- 5.3 Preparedness Plan for all health facilities

6. Education

- 6.1 Incorporate DRM modules into school curriculum
- 6.2 To construct all new schools located in hazard prone areas to higher standards of hazard resilience
- 6.3 To add features in schools in hazard prone areas for use as emergency shelters by incorporating additional facilities for water, sanitation and cooking

7. Financial Services

- 7.1 Incorporating micro financing scheme to have flexible repayment schedules that can be activated in the event of recipients being affected by natural disasters
- 7.2 Encourage financial services sectors and local capital markets to develop schemes for financing disaster risk-reduction measures.

Regional Consultative Committee on Disaster Management (RCC) Members

	Director General Department of Disaster Preparedness Office of the Vice President Government of Afghanistan		Director Crisis and Disaster Management Directorate National Security Division Prime Ministers Department Government of Malaysia
	Secretary Ministry of Food and Disaster Management And Director General Disaster Management Bureau People's Republic of Bangladesh		Chief Coordinator National Disaster Management Center Maldives
	Secretary Ministry of Home Affairs and Cultural Affairs Kingdom of Bhutan		Head National Disaster Management Agency Mongolia
	Director National Disaster Management Center Ministry of Home Affairs State Brunei Darussalam		Director General Relief and Resettlement Department Ministry of Social Welfare Myanmar
	1st Vice President And Secretary General National Committee for Disaster Management Kingdom Of Cambodia		Secretary Ministry of Home Affairs Government of Nepal
	Director General Department of Disaster and Social Relief Ministry of Civil Affairs People's Republic of China		Chairman Prime Minister's Inspection Commission National Disaster Management Authority Republic of Pakistan
	Chief Department of Emergency Situations and Civil Safety Service Ministry of Internal Affairs Republic of Georgia		Director General National Disaster Management Office Department of Provincial and Local Government Affairs Papua New Guinea
	Special Secretary In-charge of Disaster Management Ministry of Home Affairs Government of India		Administrator Office of Civil Defense and Executive Officer National Disaster Coordinating Council Department of National Defense Republic of the Philippines
	Secretary Bakornas PBP National Coordinating Board for Disaster Management Republic of Indonesia		Secretary Ministry of Disaster Management and Human Rights And Director General Disaster Management Center Republic of Sri Lanka
	Deputy for Technical Affairs Management and Planning Organization Islamic Republic of Iran		Chief National Disaster Management Office Timor Leste
	Director General of Civil Defence Jordanian Civil Defence Ministry of Interior Hashemite Kingdom of Jordan		Director General Department of Disaster Prevention and Mitigation Ministry of Interior Thailand
	Chairman Emergency Agency Republic of Kazakhstan		Director Department of Dike Management Flood and Storm Control Ministry of Agriculture and Rural Development Socialist Republic of Vietnam
	Administrator National Emergency Management Agency Ministry of Government Administration and Home Affairs Republic of Korea		
	Director National Disaster Management Office Ministry of Labour and Social Welfare Lao PDR		



RCC Secretariat:
Asian Disaster Preparedness Center (ADPC)
 P.O. Box 4 Klong Luang Pathumthani
 12120 Thailand
 Tel: (66 2) 516 5900-11
 Fax: (66 2) 524-5360, 5366
 Email: adpc@adpc.net Website: www.adpc.net

For more information on the Education Guidelines,
 please contact the:

ADPC Disaster Management Systems (DMS) Team
Aloysius Rego, Team Leader and Director, ajrego@adpc.net
Sanjaya Bhatia, Program Manager, sanjayab@adpc.net
Khin Ma Ma Gyi, Program Coordinator, magyi@adpc.net

*April 2008 version. Prepared for
 distribution at the 7th RCC Meeting,
 Colombo, Sri Lanka 08-10 May
 2008. Copyright ADPC 2008.
 Lay-out and graphic design: Philipp
 Danao, ADPC DMS*