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**LITERATURE REVIEW ON DISASTER RESILIENCE EDUCATION:
ENHANCING INDIVIDUAL KNOWLEDGE OF DISASTER RESILIENCE
AMONG CHILDREN AND PUBLIC BASED ON BEST PRACTICES OF
JAPAN AND OTHER COUNTRIES.**



VISITING RESEARCHER 2018A, TERM OF AUGUST 27- NOVEMBER 22 ,2018

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OUTLINE

Research Design

Expected Results

Contents of Research Paper (7 Chapters)

How the research results can be applied in Maldives?

RESEARCH DESIGN

SPECIFIC AIMS (RESEARCH PLAN DURING THE TERM OF ASSIGNMENT)

- Enhance DM appreciation amongst teachers to initiate an environment to influence and make an impact on disaster education to children more effectively by promoting a culture of disaster preparedness,
- Increase the capacity of schools and students to respond to disasters
- Children as agents of change, creates awareness among the parents.
- I get the opportunity, I look forward to interview the mentors and teachers of schools and education institutes of Japan and to get the chance to have a focus group discussion with the schools already practicing / teaching disaster management and preparedness (with teachers/students) to further understand how the research can be customized to Maldivian context.
- Being chosen to be a participant in the BOSAI forum 2017, Sendai, Japan, I was impressed to hear from a session that I participated, about a case study of 'Katahira' from the community people and school students team about programs they conduct to engage their community in disaster preparedness. Which want me to further analyse case studies like katahira for the research and other significant success stories and human resource development activities that they do for Disaster Risk Reduction in their community.
- To conduct a literature review on disaster risk reduction educational materials developed for Japanese schools and determine the main pitfalls and good practices experienced.
- To determine what content, components and other practices should ideally be included in disaster risk educational material in order for it to be an effective method of disaster risk reduction and mitigation 4

EXPECTED RESULTS

- Enhance existing knowledge on disaster risk management and preparedness in coherence with the most effective methods of outreach of disaster preparedness/education.
- Study the disaster risk management and preparedness methodology used by schools and educational institutions in Japan and apply those techniques in the preparedness efforts.
- Furthermore, once the disaster preparedness modules are developed after the research it can be taken further ahead with a pilot program in Maldives for selected schools with a more extensive program where the teachers and students of those schools can be trained with guidance from NDMC. Where they will be eligible to conduct programs by themselves in the long future while NDMC can monitor with event/program reports from schools to maintain the quality of the program.
- Develop a handbook for the teachers on disaster preparedness activities and exercises with the success stories and lesson learnt from schools and educational institutions of Japan.
- Gather recommendations to improve Maldives curriculum with disasters preparedness focus

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DISASTER RESILIENCE EDUCATION

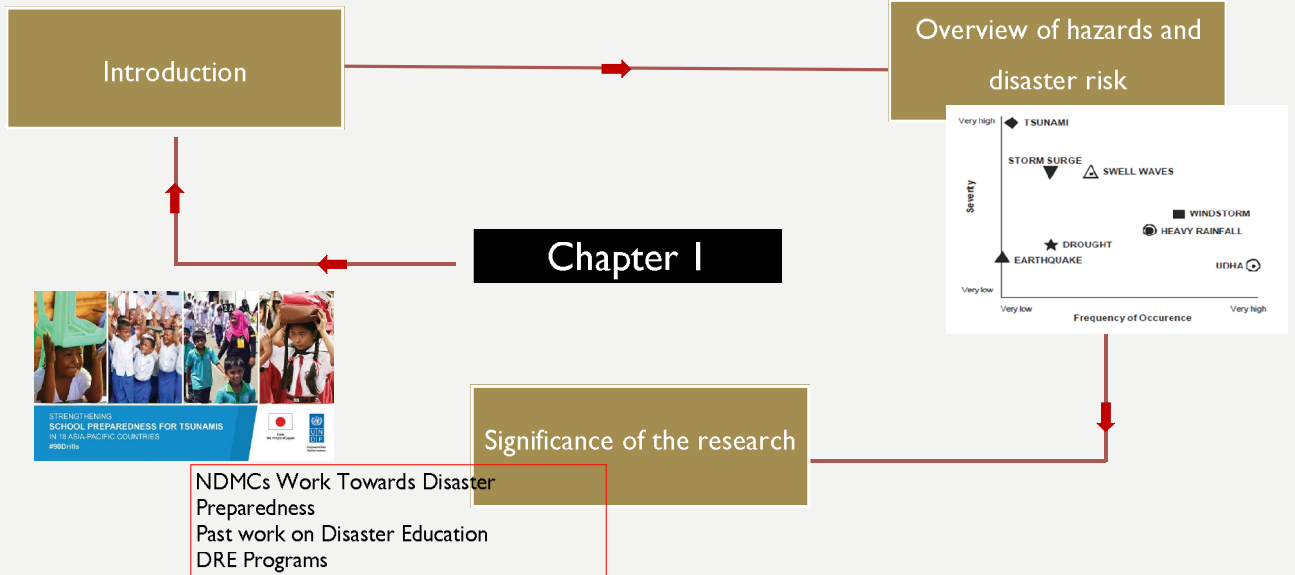
- The ability of a system, community or society exposed to hazards to resist, absorb and recover from the effects of a hazard in a timely and efficient manner (UNISDR, 2009, p. 24).
- Disaster resilience education (DRE) is the development of hazard-related knowledge, skills and strategies, to enable learners to participate as active members in skilled and resilient communities.

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CONTENTS OF RESEARCH PAPER

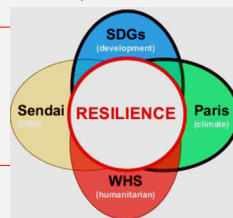
Low impact, High frequency Hazards
 Low Elevation, Flat Topography
 Physical, Climate Induced Vulnerabilities

Why This Study?

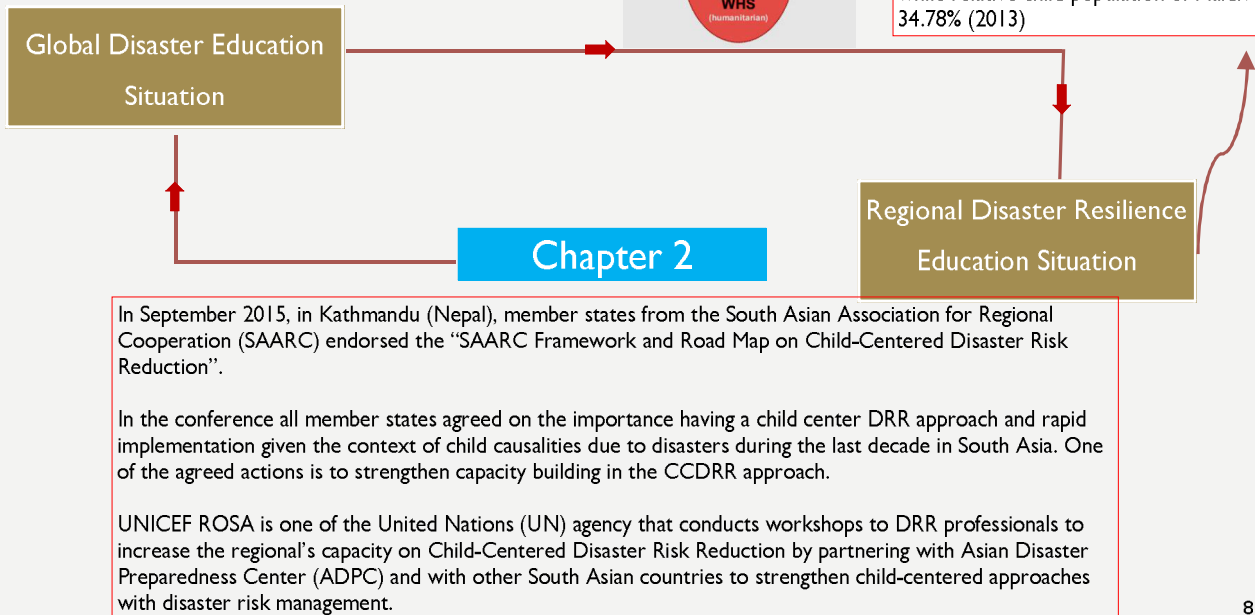


Source: PLACARD, 2017

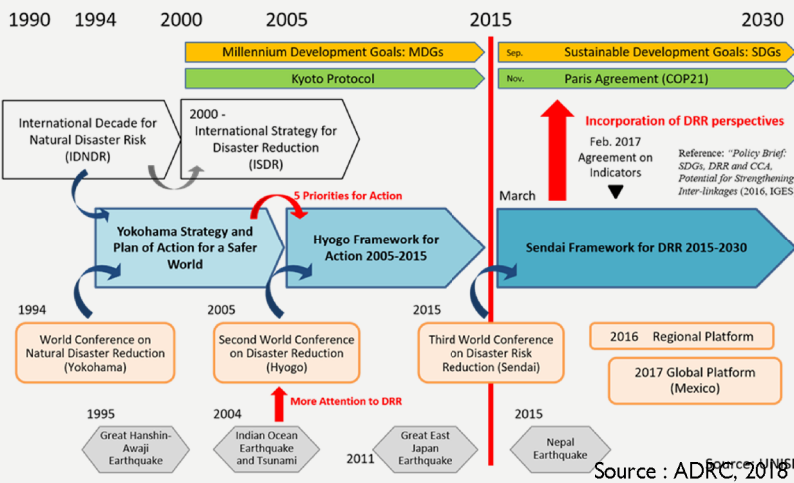
Yokohama Strategy and Plan of Action for a Safer World
 Hyogo Framework for Action 2005-2015
 Sendai Framework for Disaster Risk Reduction 2015-2030
 Sustainable Development Goals – Goal 4 (Quality Education)
 Comprehensive School Safety (CSS) Framework



More than 600million children in South Asia, who constitute 27 percent of the world child population & 36 percent of the total population in the region while relative child population of Maldives covers 34.78% (2013)

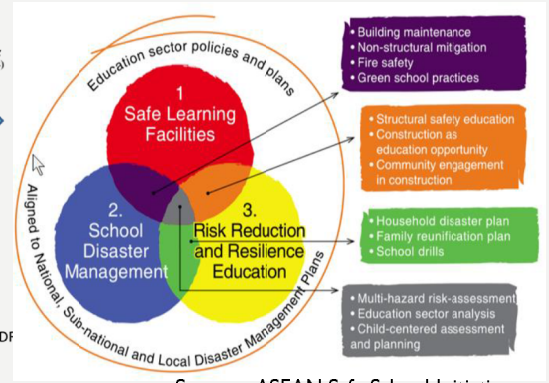


GLOBAL DISASTER EDUCATION SITUATION (ANNEX)



Source : ADRC, 2018

Comprehensive school safety framework



Source : ASEAN Safe School Initiative

Traditional education system is replaced by the British system of education with the establishment of primary and secondary schools.

Curriculum development began in 1976.

The literacy rate of Maldives is one of the highest in the world (98%) and the educational standards are highest in the region

Roughly 35% of the Maldives is under 18 years old, making education a key area for social investment in the national future

There are many documented stories of how children proactively saved villages and families from the calamity because at some point in their life they have learnt about the signs of tsunami and proved to the world they need a voice and many reasons to use them in making the cities more resilient.

The Effectiveness of Disaster Resilience Education at Kamaishi Higashi Junior High School (Kamaishi City, Iwate Prefecture) from the Great East Japan Earthquake

Education System in Maldives

Significance of Disaster Education

Case Study :Kamaishi City, Iwate Prefecture

Status of disaster resilience education in Maldives

Chapter 3

Diversity and Inclusion of DRE

The Maldives invests more than 20% of its GDP on social services (education and health). Quality education, elimination of educational disparity and decentralization of educational service has been the main educational policy of the government for years

Achieved universal education.

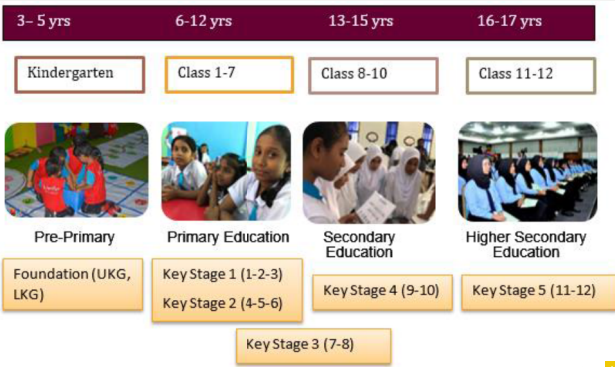
DRR Information, Communication and Education Materials

DRR Awareness Materials and Activities Dissemination Of DRR Information, And Education Materials - Communication

The United Nations Convention on the Rights of Children (UNCRC) in 1989 states "every child has the right to education, irrespective of disability and without discrimination of any kind" (Ferguson, 2014).

Sustainable Development Goal 4 on Education and the Education 2030 Framework for Action emphasize inclusion and equity as laying the foundations for quality education (UNESCO, 2018).

Education System in Maldives:- Official School Ages by Level of Education



DRR Awareness Materials and Activities Dissemination Of DRR Information, And Education Materials – Communication

- Child participatory activities
- Focus groups with teachers
- Key informant interviews
- Review of IEC materials
- Dialogue with communities
- Observation of drills

DRR Information, Communication and Education Materials

- Tokyo Bosai – A Manual for Disaster Preparedness
- The Great Hanshin-Awaji Earthquake Memorial Disaster Reduction and Human Renovation Institution
- A Study Note on Learning Disaster and Life.
- Implementation of “Summer Vacation Disaster Mitigation School 2018” by the DRI Museum
- Four Things You Can Do to Protect the Lives of You and Your Family’
- Disaster prevention guide for children and parents – 10 Points to protect your family
- “Iza! Kaeru Karavan”?
- Red Bear Survival Camp
- DRR Festivals and other such events ..



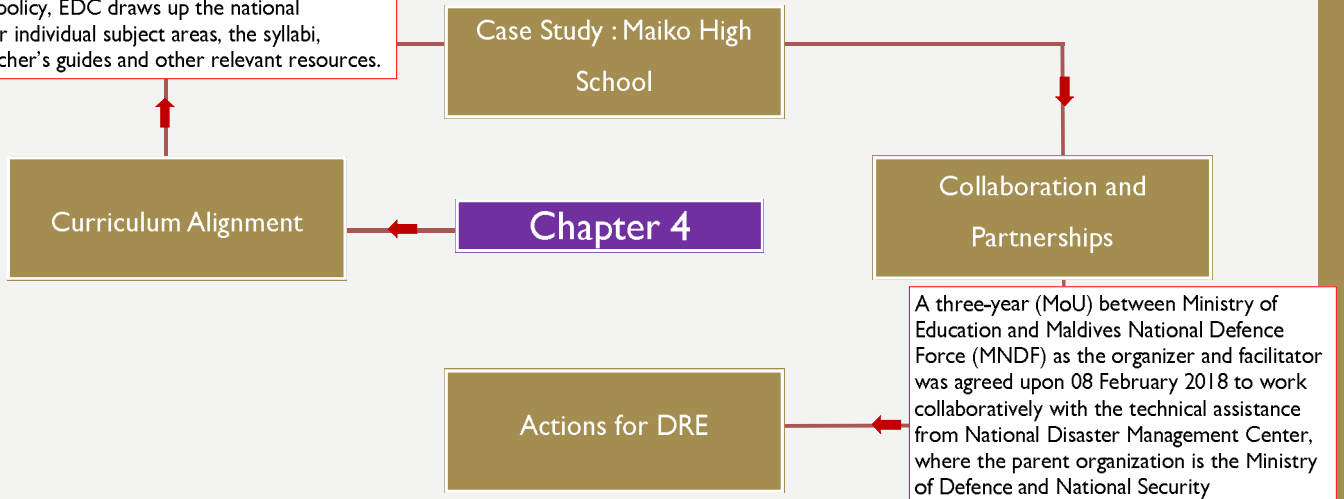
In the Maldives, National Curriculum is based on fundamental principles within an Islamic framework.

These principles, derived after several stages of consultations, encompass democracy, equity, nationalism, independence, innovation for development and strengthening of the Maldivian society.

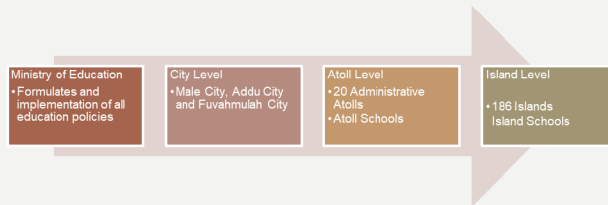
Once the Minister of Education adopts the curriculum statements as policy, EDC draws up the national frameworks for individual subject areas, the syllabi, textbooks, teacher’s guides and other relevant resources.

First school in Japan to have a well-established disaster management course in school syllabus. Maiko High School disaster management course was launched in 2002 after the 1995 Hanshin-Awaji Earthquake.

Following the establishment of Maiko High School, Miyagi Tagajo High School launched their disaster management course in 2011 after the Great East Japan Earthquake being the second school in Japan to have a structured DM course in the school syllabus.



Hierarchy of Education System



Actions for Disaster Resilience Education

Name of Agency	Summary
Ministry of Education	<ul style="list-style-type: none"> Lead agency in formulating and implementation of all education policies
National Disaster Management Center	<ul style="list-style-type: none"> Main coordinating body for disaster risk reduction activities Implementation of Disaster management policies, programs and guidelines
Maldives National Defence Force, Fire & Rescue Service	<ul style="list-style-type: none"> Primary responsibility of conducting fire emergency operations, carrying out rescue operations and providing protection to property. Promotion of DRR activities at the school and community level
Maldivian Red Crescent	<ul style="list-style-type: none"> Independent, voluntary, humanitarian organization in the Maldives. Implementing DRR activities across Maldives
UNDP / UNICEF	<ul style="list-style-type: none"> Knowledge, expertise and funding
Schools/PTA and Teachers	<ul style="list-style-type: none"> Facilitating the students with disaster risk reduction knowledge and exposure Involvement of PTA members in the DRR activities
Academia (Higher Education Institutes)	<ul style="list-style-type: none"> Heighten awareness of critical thinking among students and teachers Pioneer new research areas in DRR
Local Communities	<ul style="list-style-type: none"> Advocacy
Business Communities	<ul style="list-style-type: none"> Engagement in DRR activities
Other groups (Women's Groups/Disability Groups etc)	<ul style="list-style-type: none"> Engagement and Advocacy
Media	<ul style="list-style-type: none"> Disseminating DRR awareness information

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Education and public awareness are the cornerstone of approaches aimed at reducing people's vulnerabilities to natural hazards

The effectiveness of disaster risk reduction education can be assessed at micro, macro, and macro levels of social organization in the targeted population.

Basic Principles for Successful DRE

Educating the public on the vulnerabilities, hazards and risks that they are exposed will provide the communities with better knowledge and risk reduction mechanisms and life improving self-help strategies in the face of new disasters.

Active learning approaches that can be adopted in developing and engaging student and community centered DRR and learning activities (UNESCO/UNICEF 2014)

- Use of disaster relics
- Citizen lead initiatives
- Making community people more resilient

Holistic education brings positive impact on the transformation of students' character values, by providing development-oriented focus

It is essential to boost individual knowledge on disasters as it would provide individuals and communities with better disaster risk reduction mechanism and life improving, self-help strategies in the face of emergencies and disasters.

Implementation of Holistic Education in the Formal Education Process

Chapter 5

Case Study : BOKOMI

Integrating DRE in the Community

The citizens of the Kobe City created '**Disaster Welfare Community**' hoping that they would not have to suffer another tremendous disaster or neither others have to suffer from such disasters

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Basic Principles For Successful DRE

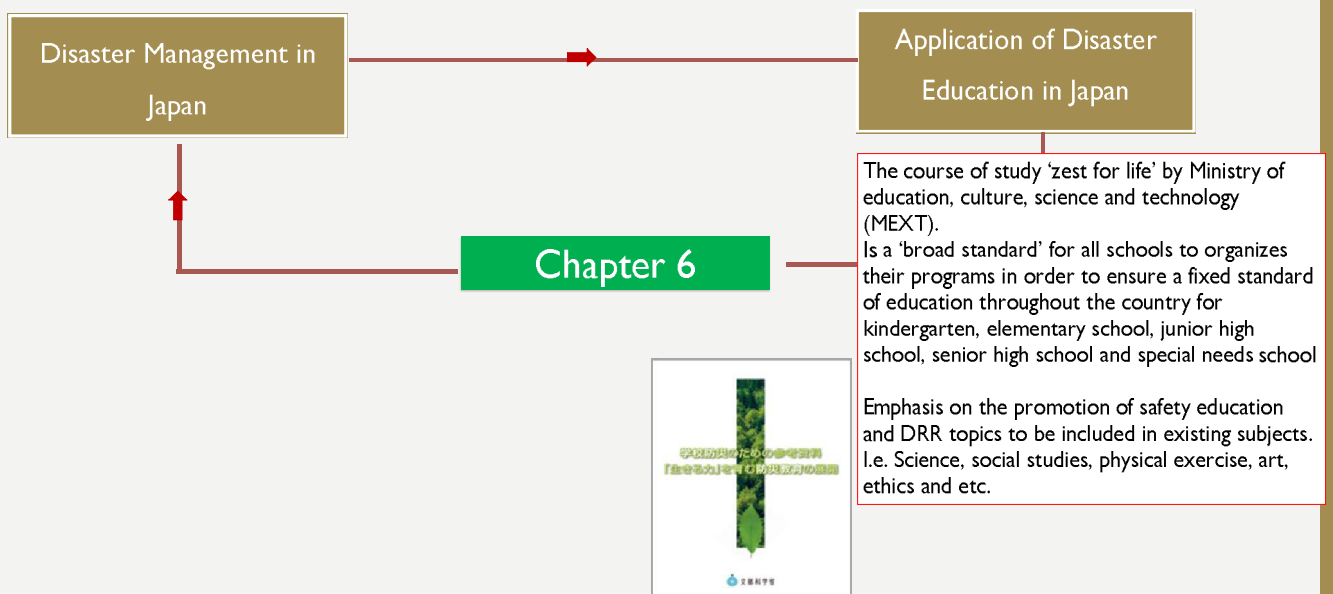
Micro Level	Macro Level
Assessing risks and holding regular planning meetings.	Widespread consciousness of hazards, vulnerabilities and capacities (knowledge of measures to be taken before, during, and after a disaster).
Identifying an out-of-area-contact, and having meeting places and reunification plans (including young children knowing their full name and address).	The applications of effective early warning systems.
Maintaining insurance.	Responsible land-use planning.
Buying/renting in safe location.	Structural safety standards and their enforcement.
Building/retrofitting disaster resistant housing.	Other physical risk reduction measures.
Taking measures to secure building contents and belongings.	Environmental stewardship.
Taking fire prevention methods.	Community-based planning and assessment.
Learning disaster response skills (for example first aid, fire suppression, wireless communications, light search and rescue, water rescue, incident command systems)	Community-based risk reduction activities.
Maintaining survival provisions and emergency kits.	Community-based response preparedness skills development.
Maintaining emergency communication systems and local applications of early warning systems.	
Reducing, reusing, and recycling	

INTEGRATING DRE IN THE COMMUNITY Active Learning Approaches

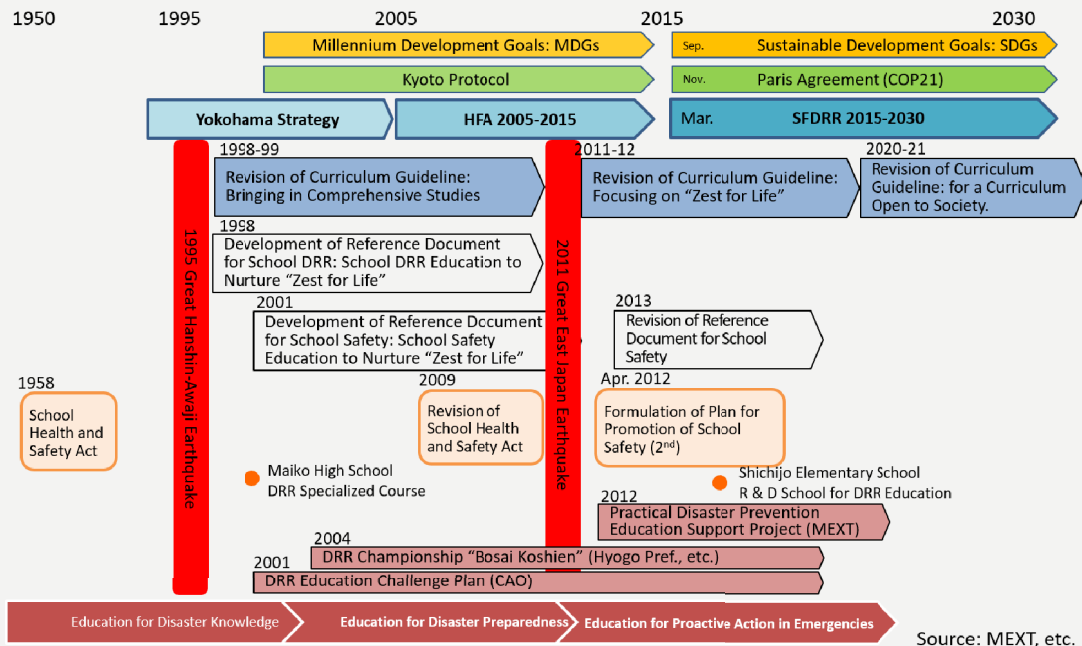
LEARNING TYPE	ASSOCIATED LEARNING ACTIVITIES
Interactive Learning	Brainstorming, pair and group discussion exercises, interactive multimedia presentations by students, teachers community members, DRR experts
Inquiry Learning	Individual and team case study research and analysis, project work, undertaking surveys and interviews, internet searching
Affective Learning	Sharing feelings, hopes and fears around hazards and disasters through multiple media
Surrogate Experimental Learning	Board games, digital games, role plays and drama simulation gaming
Field Experimental learning	Field visits to emergency management agencies, hazard mapping, hazard vulnerability and capacity assessments, transect walk, emergency drills and simulations
Action Learning	Student and community initiatives to raise hazard awareness, participating in DRR and resilience building initiatives
Imaginal Learning	Visualizing what to do in crisis situations, writing fictional stories

The turning point for strengthening the disaster management system came in to effect in response to the immense damage caused by Typhoon Ise-Wan in 1959 which lead to the enactment if the Disaster Countermeasures Basic Act in 1961

Integration of Disaster Education in schools began in the early 1958 with the School Health and Safety Act. Over the years, more laws and regulations have been formulated and curriculum revisions made to strengthen disaster education in Japan.



Evolution of school DRR education in Japan

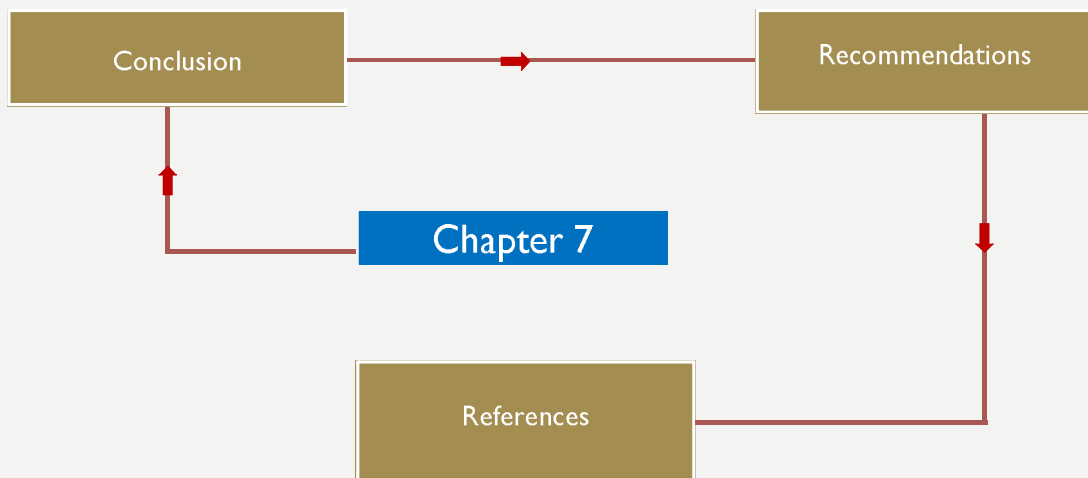


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Incorporating disaster resilience into school curricula and community takes creative thinking and lot of planning.

This also requires application of the basic principles for disaster resilience education

Disaster resilience should be included in the design, implementation and evaluation phase with the 6 key elements that includes people, governance, place, money, material and knack to get a positive output



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RECOMMENDATIONS

- Increase capacity of schools and students to respond to disasters.
- Bring needed changes to the curriculum and revise it, which would allow the students to be more independent make their own decision shifting from a teacher centered classroom to student centered class room.
- Children should also be exposed to real-life situations to make them more aware of the surrounding they live in, this would instill them with quick response and decision making skills which can be used in the event of emergencies and disasters. These exposure levels can be based on the developmental levels of the students.
- Produce effective Information, Communication and engagement materials (audio and visual aids)
- Career guidance should be provided to students from secondary level in order to inspire students and allow them to explore the different career paths available after secondary education.
- Apprenticeship programmes or work-based exercises should be integrated as part of the learning experience in schools.

RECOMMENDATIONS (CONT..)

- Incorporating DRR activities in the regular community festivals and occasions.
- Replicating activities like “Iza! Kaeru Karavan”? / Disaster survival camps.
- Develop new strategies to incorporate public and children in disaster preparedness with the relevant stakeholders.
- Implementation of a structured DRE program in Maldives with extensive components of disaster resilience where the teachers, students and parents of those schools can be trained with guidance from NDMC, MRC and relevant agencies. Where they will be eligible to conduct programs by themselves in the long future while NDMC can monitor with event/program reports from schools to maintain the quality of the program.

HOW THE RESEARCH RESULTS CAN BE APPLIED IN MALDIVES?

- Share the research report with the Management of NDMC and Ministry of Education and brief the findings and expected outcomes on the proposed subject of research.
- Work in collaboration with Ministry of Education and schools to enhance teachers and students knowledge and understanding by conducting scheduled school preparedness programs and school drill.
- Strengthen the community sessions focusing more on Tsunami awareness and preparedness with interactive sessions rather than providing theoretical knowledge.
- Once it is approved by the management of NDMC, my research can be published for use of other DRR managers and to be shared with other stakeholders in the DRR field.
- Get approval for the disaster preparedness activities and exercises handbook and used it strengthen the disaster awareness and preparedness programs at the national and local level.

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THANK YOU !!

ARIGATHOGOZAIMASU 😊

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