Innovations in DRR Education

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Contents

• Issues and Challenges of Disaster Education

• Innovations in Policy Interventions

• Innovations in Enhancing Actions

• Higher Education in DRR and CCA
Education for Sustainability

UN Decade of Education for Sustainable Development (2005-2014, Secretariat: UNESCO)

Education for Sustainability is a *lifelong learning process* that leads to an informed and involved citizenry having the creative problem solving skills, scientific and social literacy, and commitment to engage in responsible *individual and co-operative actions*.

Education for Sustainability has the potential to serve as a tool for building stronger *bridges between the classroom and business, and between schools and communities*.

Education for CCA (Climate change adaptation) and DRR (disaster risk reduction) as a part of education for sustainability
Education: the Key Lessons

- It is essential, valued, welcomed and it works!
- However many governments give it a low profile
- Education and Training are costly, but yield rich dividends
- There is a lack of knowledge concerning the effectiveness of education and training
Genuine Learning:

“Tell me, and I’ll forget
Show me, and I may remember
Involve me, and I will understand”

Anon
Source and Tools of Education

Community Education
- Neighbor
- Others (research worker etc.)

Family Education
- Family

School Education
- Friends
- Teacher

Self Education
- Books
- Internet
- Newspaper
- TV

Person
Steps of Knowledge and Education

- Knowing
- Realizing
- Deepening
- Decision
- Implementation

Knowledge:

- Perception
- Deepening A
- Deepening B
- Preparedness A
- Dissemination A
- Preparedness B
- Dissemination B

Counts:

- Perception: 9
- Deepening A: 7
- Deepening B: 11
- Preparedness A: 2
- Dissemination A: 2
- Preparedness B: 2
- Dissemination B: 2
Results of Risk Perception of School Students in Japan

-60-70% students undergone disaster education
-70-80% students have higher risk perception
-30-40% are prepared
Community & family play the most important role

The Problem
Enhancing Action

<table>
<thead>
<tr>
<th></th>
<th>Listen</th>
<th>Watch</th>
<th>Do</th>
<th>Talk</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>S2</td>
<td>S3</td>
<td>S4</td>
<td>S5</td>
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<tr>
<td>Perception</td>
<td>○</td>
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<tr>
<td>Deepening A</td>
<td>○</td>
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<tr>
<td>Deepening B</td>
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<tr>
<td>Preparedness A</td>
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<td>Preparedness B</td>
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<tr>
<td>Dissemination A</td>
<td></td>
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<tr>
<td>Dissemination B</td>
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</tbody>
</table>

From realization to action, TALK has more impact.

Effectiveness: [Talk] > [Do] > [Watch] > [Listen]
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Customizing HFA into Education Sectors

BUILDING THE RESILIENCE OF THE EDUCATION SECTOR TO DISASTERS

Expected outcome, strategic goals and priorities for action 2005-2015

Expected Outcome
The substantial reduction of disaster losses, in lives and in the social, economic and environmental assets of communities and countries

Strategic Goals
1. The integration of disaster risk reduction into sustainable development policies and planning
2. Development and strengthening of institutions, mechanisms and capacities to build resilience to hazards
3. The systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes

Priorities for Action
1. Ensure that disaster risk reduction (DRR) is a national and a local priority with a strong institutional basis for implementation
2. Identify, assess and monitor disaster risks and enhance early warning
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels
4. Reduce the underlying risk factors
5. Strengthen disaster preparedness for effective response at all levels

Key Activities
- DRR institutional mechanisms (national platforms), designated responsibilities, DRR part of development policies and planning, sector wise and multistakeholder, legislation to support DRR, decentralisation of responsibilities and resources, assessment of human resources, fostering political commitment, community participation, risk assessments and maps, multi-risk: elaboration and dissemination, indicators on DRR and vulnerability, data and statistical loss information, early warning: people centered, information systems, public policy, scientific and technological development, data sharing, space-based earth observation, climate modeling and forecasting, early warning, regional and emerging risks
- Information sharing and cooperation, networks across disciplines and regions, dialogues, use of standard DRR terminology, reduction of DRR into school curricula, formal and informal education, training and learning on DRR: community level, local authorities, targeted sectors, equal access, research capacity: multi-risk, socio-economic: application, public awareness and media, sustainable ecosystems and environmental management, DRR strategies integrated with climate change adaptation, food security for resilience, DRR integrated into health sector and safety hospitals, protection of critical public facilities, recovery schemes and social safety-nets, vulnerability reduction with diversified income options, financial risk-sharing mechanisms, public-private partnership, land use planning and building codes, rural development plans and DRR, disaster management capacities: policy, technical and institutional capacities, dialogue, coordination & information exchange between disaster managers and development sectors, regional approaches to disaster response, with risk reduction focus, review & exercise preparedness and contingency plans, emergency funds, volunteering & participation

Cross Cutting Issues
- Disaster management capacities: policy, technical and institutional capacities, dialogue, coordination & information exchange between disaster managers and development sectors, regional approaches to disaster response, with risk reduction focus, review & exercise preparedness and contingency plans, emergency funds, volunteering & participation
Seeing Resilience Through an Education Lens

**PRIORITY 1:** Developing institutional base for DRR in education

**PRIORITY 2:** Identifying, assessing and monitoring disaster risks in the education sector

**PRIORITY 3:** Building a culture of safety through DRR education

**PRIORITY 4:** Reducing the underlying factors in the education sector

**PRIORITY 5:** Preparing for effective emergency response and recovery in education
Approach

Cascade model adopted to reach the lowest level of the pyramid
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**Study through Lecture**

**Purpose:** Understand about general knowledge (Mechanism of disaster, disaster history, past disaster etc.)

**Tool:** Text book, Video, some document.

**Implementer:** School teacher, Instructor etc...

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**Learn through Experience**

**Purpose:** Understand local issue, history and environment.

**Tool:** Town Watching, Interview, Visit to Museum, Disaster drill

**Implementer:** Specialist, High experience person

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**Learn through Presentation**

**Purpose:** Understand own issue. Make action plan

**Tool:** Some WS tool

**Implementer:** Student individual
1 year program
2 Levels
3 types of hazards
KIDA Model of Education

Knowledge

Desire

Interest

Action
Places of Education

Home

Community

School

Students
FLOOD PREPAREDNESS TREE

LEVEL ONE

KNOWLEDGE
FL1-A. Conducting First-Aid Training
FL1-B. Conducting Experiment Sessions
FL1-C. Family Chats on Past Flood Experiences
FL1-D. Understanding the Flood Prevention Support in Your Community

INTEREST

DESIRED
FL1-E. Community Interaction

Actions
FL1-F. Creating a Checklist and Performing Monthly Checks

LEVEL TWO

KNOWLEDGE
FL2-A. Short Lecture and Video-Watching
FL2-B. Participating in Post-Flood Activities such as Clearing of Debris
FL2-C. Creating an Emergency Escape Plan
FL2-D. Community Mapping
FL2-E. Drawing or Photography Contest

INTEREST

DESIRED
FL2-F. Ensuring that Family Members, Neighbors are Warned
FL2-G. Ensuring that Electrical Appliances are Unplugged

Kyoto University  Graduate School of Global Environmental Studies
<table>
<thead>
<tr>
<th>Priority Activities</th>
<th>Monthly</th>
<th>Quarterly</th>
<th>Annually</th>
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</thead>
<tbody>
<tr>
<td>Think of 2 Flood-preparedness activities that you can do. (Refer to FL1-G and FL1-H)</td>
<td></td>
<td>FL1-E. Community Interaction</td>
<td>FL1-D. Understanding the Flood Prevention Support in Your Community</td>
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<tr>
<td>School</td>
<td></td>
<td></td>
<td>FL1-B. Conducting Experiment Sessions</td>
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<tr>
<td>Home</td>
<td>FL1-F. Creating a Checklist and Performing Monthly Checks</td>
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<tr>
<td>Optional Activities</td>
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<tr>
<td>Community</td>
<td></td>
<td></td>
<td>FL1-A. Conducting First-Aid Training</td>
</tr>
<tr>
<td>School</td>
<td></td>
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</tbody>
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**NOTE:** FL1-A to H are activity codes. Students are not required to follow the activities in sequence.

**Kyoto University Graduate School of Global Environmental Studies**
FL1-D. Understanding the Flood Prevention Support in Your Community

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>ACTIVITY SITE</th>
<th>FREQUENCY</th>
<th>ACTIVITY TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVEL ONE</td>
<td>Community</td>
<td>Quarterly</td>
<td>Priority</td>
</tr>
</tbody>
</table>

Rationale

It is important to find out if an early warning system is available in your community. If there is a warning system, are you able to recognize it?

There had been cases when warning systems are set off, however, citizens did not understand and fail to respond.

Therefore, it is important and its our responsibility to find out and understand the early warning system in our community.

Suggested Activities:

- Learn about the information provided in pamphlets.
- Learn about the information disseminated through the broadcast at local radio stations.
- Find out what kind of information are available at the local community.
- If possible, visit the local authorities to find out more about the early warning systems.

Example

MEMO (Date: 1 Oct, What was learnt: Visit to local authorities)

I attended a talk given by the local authorities and learnt about the different warning sirens as well as where to go for shelter in case of emergency.
Understanding about region and environment, land slide and role of forest.

Build up network in Community

Mountain Watching

Understanding about region and environment, Flood disaster and Earthquake disaster.

Build up network in Community

Town Watching

Understanding about region and environment, Tsunami, storm surge and role of forest.

Build up network in Community

Coastal Watching

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Higher Education University Network
(17 universities from 15 countries)

Climate Change Adaptation
As the key common theme