



Good Practices and Lessons Learned

Disaster Risk Reduction through Schools

December, 2010, Kathmandu



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Acronyms and abbreviations

AAN	ActionAid Nepal
BSCDMP	Building Safer Community through Disaster Management Project
CA	Constituent Assembly
CCA	Climate change adaptation
CBDP	Community-based disaster preparedness
CDC	Curriculum Development Centre
DDC	District development committee
DMC	Disaster management committee
DRR	Disaster risk reduction
DfID	Department for International Development
DRM	Disaster risk management
DEO	District education office
GoN	Government of Nepal
HFA	Hyogo Framework for Action
IEC	Information, education, and communication
IDS	Institute of Development Studies
MoHA	Ministry of Home Affairs
MoE	Ministry of Education
NSET	National Society for Earthquake Technologies
PTA	Parent teacher association
PVA	Participatory vulnerability analysis
SMC	School management committee
VDC	Village development committee

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Preface

In early 2006, we developed a challenging project, the ‘Disaster Risk Reduction through Schools Project (DRRSP)’, a project designed to run for three-and-a-half years with funding from the Department for International Development (DFID). This multi-country project was designed by ActionAid International to reduce people’s vulnerability to natural disasters and to contribute to the implementation of the Hyogo Framework for Action (HFA) by making schools in high-risk areas safer, enabling schools to act as a locus for disaster risk reduction, and engaging the education sector in the HFA.

Within the short time it operated, the DRRSP, because its strategies and approaches were effective, yielded very good results indeed. Among its many achievements are establishing and strengthening disaster risk reduction (DRR) social structures like disaster management committees and child clubs at the community and school levels; improving linkages and coordination with government agencies; increasing the disaster resilience of schools; and building the capacities of students, teachers and communities to cope with the impacts of disasters.

The project also contributed to ActionAid Nepal’s foundational themes—the right to education, women’s rights and the right to food and land. It promoted the right to education by making schools safer from the impacts of disasters, creating awareness about disasters, and imparting life skills to students. It has also enhanced the right to education in a safe environment by making schools earthquake-resistant. By advocating for a change in the national school curriculum, it has successfully provided students across the country, even those outside the project area, with disaster education. The project also benefited those who are most affected by disaster—women, children, the elderly and persons with disabilities. It employed participatory vulnerability analysis to ensure that these groups get to participate in the decisions that affect their lives and that their needs are carefully taken into account. Their special needs

are reflected in the community-based disaster preparedness plans that were created by the rights holders at the community level. The rights to food and land were promoted indirectly through debate and discourse about climate change and adaptation to it.

This project was implemented in close coordination with the DG ECHO-funded DIPECHO project, Surakshit Samudaya: Building Safer Communities through Disaster Management Project, which used a community-centred approach to empowering and mobilising social groups and youths in order to minimise risks and increase community resilience. The coordination between the two projects had many benefits for local-level DRR. By sharing the school- and community-based approaches, project staff were able to foster many innovative ideas related to risk reduction.

This book carefully documents ten good practices and lessons learnt and gives a clear overview of how they evolved. We hope that this book helps project designers, project implementers, civil society, researchers, and academicians. On behalf of ActionAid Nepal, I thank all the contributors to this book, in particular Dr. Dhruva Gautam, for all their hard work and for the final synthesis of materials. I also offer my thanks to my colleagues at the DRRSP and DIPECHO and their partner organisations for their penetrating insights, thoughtful critiques, and sustained support. Building a disaster-resilient community will take time, but the journey will be a fruitful one as long as we ensure that the projects we carry out achieve the results they are designed to achieve.

Bimal Kumar Phnuyal

Country Director

ActionAid Nepal

December, 2010

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Good Practices and **Lessons Learned**

with Respect to Disaster Risk Reduction

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with Respect to Disaster Risk Reduction

1.1 The disaster context

Natural disasters, whether they be floods, glacial lake outburst floods, landslides, earthquakes, fires, hailstorms, droughts or epidemics, are a regular occurrence in Nepal. According to government statistics, the human loss in the last 20 years (1983-2003) was 21,195, an average of over 1000 deaths a year. A report on global disaster risk ranks Nepal 11 in the world in terms of vulnerability to earthquakes and 30 in terms of water-induced disasters. And, with the impact of global warming, the risk will only increase.

Natural disaster has terrible repercussions for individuals, from the loss of life and livelihood¹ to injury, psychological trauma, migration, starvation, beggary, suicide, disability and illness. For a community as a whole, disaster causes significant economic loss, erodes social and financial capital, decreases agricultural productivity, and damages physical infrastructures like drinking water and irrigation systems and hydropower plants. The poor and disadvantaged are especially vulnerable to disaster because they have so little resilience. To mitigate the effects of disaster, to increase people's resilience to disaster risks, and to transfer risk; adopting a disaster risk reduction (DRR²) strategy is crucial.

1.2 The Project

Not only can schools can serve as temporary shelters for disaster-affected people but students can be a good resource for disseminating knowledge about DRR. To capitalise on the potential for using schools to promote DRR, in April 2006 ActionAid Nepal (AAN) began piloting its three-year Disaster Risk Reduction through Schools³ Project (hereinafter referred to as "the project") in the districts of Banke, Makwanpur, Rasuwa and Kathmandu in two of the most vulnerable schools⁴ in each district. The project employed a child-to-child and child-to-parent

- 1 One of the biggest disasters in Nepal's recent history occurred in 1995, when floods and landslides damaged four billion U.S. dollars worth of property, or 13% of the nation's total budget at that time.
- 2 DRR involves pre-disaster steps as well as immediate post-disaster responses. These measures include identifying hazard-prone areas, establishing early warning systems, raising levels of awareness, and disseminating information about the need to establish temporary housing as well as life-support systems.
- 3 The project design--'DRR through schools' not 'DRR in schools', helped reduce gaps at the level of implementation. Before this project was implemented, schools were involved in DRR initiatives but not in a focused, consolidated fashion. For example, the DRR-in-schools approach of the Nepal Red Cross Society (NRCS) largely ignored the role of the communities. Schools are part of and government organisations adopted a blanket approach to DRR which did not specifically consider schools at all. The focus of INGOs on mitigation and preventive interventions also had little to do with schools. Oxfam, for instance, adopted a river basin approach to DRR through livelihood promotion and made buffer stock and support available for immediate response. Save the Children focused on child-led DRR and worked to protect children during emergencies but schools were secondary concerns. Civil society, for its part, focused on community-level responses, especially collecting funds for post-disaster support.
- 4 Schools were selected using the following criteria: the physical status of the school building, the vulnerability of the school to flooding, the school catchment area (each had to cover at least three VDCs and include marginalised groups), and poverty levels.



approach. The project was funded by Department for International Development (DfID) and was a multi-country project of ActionAid International.

The project's goal was to 'reduce people's vulnerability to natural disaster by contributing to the implementation of the Hyogo Framework for Action (HFA).' Its purpose was to 'make schools in high disaster risk areas safer, to enable them to act as a locus for DRR, and to engage the education sector in the HFA.' The HFA (2005-2015) seeks to ensure that DRR is a national and local priority by drawing upon both national platforms and community participation. The framework's explicit reference to 'using knowledge, innovation and education to build a culture of safety and resilience at all levels' makes it clear that schools should be involved in DRR. To see that the HFA is effectively implemented, the project intends to develop coalitions of educational institutions that will link work on DRR in individual schools to national processes.

The HFA's explicit reference to 'using knowledge, innovation and education to build a culture of safety and resilience at all levels' makes it clear that schools should be involved in DRR.

In order to achieve its overall goal and purposes, the project adopted the following strategies:

- Improving the ability of vulnerable communities to cope with disasters using community-based disaster preparedness strategies.
- Establishing and building the capacity of alliances and networks to carry out effective disaster preparedness and response measures.
- Mapping hazards and conducting vulnerability assessments of disaster-prone areas and advocating that necessary mitigation measures be implemented.
- Providing immediate relief and rehabilitation to the neediest during and after disasters.
- Promoting the rights of disaster victims to proper compensation and rehabilitation by advocating that the government formulate appropriate policies.

The project directly involved eight schools, 4500 children, 200 teachers, 100 parents and 200 community members, and its indirect beneficiaries numbered about 25,000, including national-level civil society groups, policymakers and campaigners. Activities took place at the community, district and national levels in order to target as large an audience as possible with messages about DRR and contributing for the key values⁵ of AAN.

1.3 Project's implementation process and approach

The project adopted and adhered to a systematic approach and effective processes in order to mobilise people living with risks, disaster actors and governmental stakeholders.

5 The revised country strategic plan (CSP III) of AAN indicates that land, livelihood and food security; education; and women rights are its three fundamental themes and that governance and human security are crosscutting themes. Urban poverty and the rights of persons with disabilities, Dalits and indigenous people, are other themes. One of the strategies of CSP III is to enable vulnerable groups to mitigate the impact of disaster by ensuring their rights. The evaluation found that there is a good correlation among the overall objective of the project, the key thrust of the emergency and disaster management theme, CSP III and ActionAid International HST/IECT strategy.

a. Selected project districts and schools

In each of the four districts it selected, the project chose to work with the two most physically vulnerable schools and their neighbourhoods. The selections were appropriate given their degree of vulnerability and the frequency with which disasters strike them. The involvement of district education offices (DEOs) in the selection process ensured that good coordination existed from the very outset.

b. Considered DMCs as lead organizations

The implementation of community- and school-level disaster preparedness, mitigation and awareness activities soared as a result of the project's mobilising socially inclusive disaster management committees (DMCs) and child clubs. The fact that these groups were socially inclusive helped to ensure the equal participation of men, women and marginalised groups in reducing the risks of hazards, eliminating social vulnerability and building disaster-resilient communities. Women, who were once largely absent from development endeavours, are now in the forefront and are well represented in decision-making processes. Because DMCs⁶ have strong ties with local governments, they were successful in mobilising government funds for small-scale initiatives.

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c. Built capacity

Though the 'slate was not empty' in terms of DRR knowledge, members of DMCs and child and youth clubs and other locals were able to sharpen their knowledge and skills through a series of capacity-

6 The project helped communities form DMCs whose inclusiveness ensures that participation in each DRR endeavour is high and that many local resources are forthcoming from the local government. DMCs serve as a platform to promote interactions and discussions among students, teachers and guardians about new DRR issues and to share the good practices adopted by other communities with a view towards replicating them.

building initiatives⁷. Thanks to the project, disaster actors participated in refresher trainings and translated their newly-acquired skills into action. Trained core students then shared what they learned with their classmates, who, in turn, shared their learning with their parents and community members. The system worked well: people's attitudes and behaviours, specifically their perceptions of and ability to deal with disaster, risks, hazards and multiple forms of vulnerability have changed for the better. Children who work in a team to prepare and respond to disasters sharpen their knowledge and understanding through application and discussion. One key realisation imparted by the training is that disaster is not inflicted upon people by God but is the consequence of natural forces and human actions. Using social auditing to ensure accountability for and the transparency of all resources and how they were utilised facilitated the mobilisation of disaster actors, including DEOs.

d. Used PVA methods to identify forms of vulnerability

Both the child-to-child and child-to-parent approaches proved to be excellent ways to promote information sharing and learning and using these approaches through participatory vulnerability analysis (PVA) methods made it easy to analyse the underlying forces and factors of various forms of vulnerability. The most apparent change is that children's ideas are starting to be valued and heard and that they are being recognised as DRR ambassadors. Children's learning about DRR initiatives, however limited, has had major impacts: they have shared new, practically applicable ideas with their parents and gotten them to change their behaviours and practices. Using peer learning to pass on knowledge and information was very effective because there are no boundaries among children or formal protocols governing their interactions. As a result, children are free to explore ideas.

Teachers and parents now recognise that using children and school education to disseminate information about DRR is a useful strategy and that, through children and schools, entire communities are now more

⁷ These initiatives included training, exposure visits, the observation of street dramas, drills and simulation exercises, and co-curricular activities at schools.

able to cope with and respond to disaster. Policy advocacy⁸ received a boost by involving district- and national-level stakeholders in the PVA exercise. A culture of self-reliance—of using local resources to minimise the impacts of disaster rather than waiting for relief—has begun to take root.

e. Maintained good governance at the project level

To strengthen AAN’s accountability to its rights holders, the project introduced social audits of its DRR work in each school. These audits involved all relevant stakeholders, including students, teachers and parents, and representatives of both I/NGOs in the district as well as district education and administrative offices. During these audits, DMCs, school construction committees and local partners shared work progress and expenditures with stakeholders. Stakeholders’ attitudes toward the project are positive because of the high degree of accountability and transparency. The attendant trust and harmony increased the effectiveness of the project.



8 The project design directly correlates with the HFA, millennium development goals (MDGs) and education for all (EFA) by 2015. It helped secure MDG-2, decreasing the child mortality rate and HFA priority action 3. The project advocated that policy provisions for DRR be adopted; in particular, it was active during the formulation of the National Strategy for Disaster Risk Management (NSDRM) and the Disaster Management Act. It indirectly contributed toward a decade of sustainable development (2004–2014). ActionAid International’s commitment to the international strategy for disaster reduction (ISDR) was also fulfilled.

f. Chose strategic partners at the national level

Choosing strategic partners at the national level helped make the project effective. For example, National Society for Earthquake Technologies (NSET), which works with the government on other projects too, has developed many good practices that were used by this project. It also has the capacity to persuade the government to enforce building codes. As NSET has made the paradigm shift from dealing with a single hazard to dealing with multiple hazards, it is especially relevant in the context of this project because disaster risks can be reduced only when all hazards are assessed and analysed.

g. Addressed the needs and constraints of project beneficiaries

The project addressed the needs and priorities of rights holders, especially persons with disabilities, who are among the most vulnerable groups. New infrastructures were constructed with the needs of persons with disabilities in mind. Empowering children to serve as agents of change was also effective as children are the leaders of tomorrow. DRR messages were very effectively transferred to the community through schools, i.e. through the child-to-child and the child-to-parent approaches. As a result, the relationship between communities and schools has become stronger, thus making a better learning environment for students. Putting children in the forefront and working to secure their rights to education, protection, and participation added value to the project and created an environment conducive to carrying out DRR



works. The initiatives undertaken by the AAN to promote the ‘right to primary education’ contributed a lot.

h. Accorded DMCs a lead role in driving project’s activities

Social mobilisation and community empowerment was effective because DMCs had a lead role. The resultant community-focused and decentralised approach facilitated the mobilisation of human and financial resources and fostered partnerships, coordination, and networking at the local level. The interest of project holders was heightened because the project addressed all hazards, not just earthquakes.



i. Strengthened government systems

The project supported the structural and non-structural roles of the government in making schools safer and in improving the quality of education. As the project invested many resources in both these areas, school administrators regarded the project positively from day one. The project also strengthened the role of school management committees (SMCs) and the PVA tool helped mobilise internal and external resources for community plantation and community development work through the construction of small- scale infrastructures.

j. Adopted a partnership approach

The project’s attempt to integrate a wide range of DRR ideas, from the community to the national level, was effective in that it chose partners

at both the district⁹ and national levels. Local partners successfully increased the resilience of disaster-affected communities and advocated that district-level stakeholders adopt DRR initiatives. National level partners, for their part, brought local-level learning to the national level. Their efforts were praised by project holders. Because of the project's rights-based and partnership approaches, local communities now have the power to demand government resources as their entitlement; they are able to pressurize duty bearers to provide them their due.

k. Build the capacity of AAN and its partners for advocacy and lobbying

Through networks, the project built appropriate linkages with various stakeholders at both the local and national levels to use in mapping and mobilizing resources. Partner NGOs are now equipped with sufficient human resources who are knowledgeable about disaster prevention and DRR and can provide resource backup and thereby ensure human security.

1.4 Documentation of good practices

The project generated numerous good practices with respect to DRR in schools¹⁰ and their neighbourhoods, but this report focuses on ten: (i) mainstreaming DRR in school curricula, (ii) transferring DRR education from school to neighbourhood and vice versa, (iii) making schools a safe place for students and local residents, (iv) changing the mindsets of duty bearers and right holders through PVA, (v) making schools physically strong through retrofitting techniques, (vi) promoting child-to-child and child-to-parent approaches to disseminating DRR knowledge, (vii) engaging in policy advocacy for the implementation of the HFA, (viii)

9 Local partners are Bheri Environmental Excellence (BEE) Group in Banke, Lumanti in Kathmandu, Manekor Society Nepal in Rasuwa, and Women's and Children's Development Forum in Makawanpur.

10 When this project was designed in 2005, the Maoist movement was at its height and part of its fierce fight against the insurgency, the government had forbidden people to assemble in a single venue to discuss actions. Schools alone could serve as the places of gathering. In fact, no government organisations other than the education sector were functional at that time. The project's decision to use schools as its entry point made good sense as there was less conflict-related risk in schools than elsewhere and as the nation already had a strong educational network from the community to the national level.

strengthening DMCs, (ix) using participatory video to increase awareness about climate change mitigation, and (x) coordinating the efforts of this project with those of DIPECHO. The main objective of the report is to encourage the sharing of knowledge and experience among all project countries and communities as well as among concerned organisations and other DRR stakeholders in order to benefit all those vulnerable to natural disasters.

1.5 Study methods

This research is based on the following qualitative methods of data and information collection and analysis:

- Analysis of project documents and progress reports
- Development of checklists on the basis of the study objectives
- Review of secondary information
- Organisation of meetings with project staff and other concerned stakeholders, including child clubs, teachers, students and local community leaders as well as duty bearers, both in Kathmandu and in the project districts
- Employment of various participatory appraisal tools, including focus group discussions, key informant interviews, timelines, trend analysis, and group interviews,
- Analysis of all primary and secondary information and drafting of this report.





DRR-Friendly
Education in Schools:
Mainstreaming DRR education in the
school curricula opened new avenues

DRR-Friendly Education in Schools:

Mainstreaming DRR education in the school curricula opened new avenues

Background

Only if children are educated well can a strong community be built. In order to increase a community's ability to respond effectively to future disasters, children must be well informed about disasters and their associated risks as well as about initiatives that can be taken to reduce these risks. Formal education can serve as a good source of that information. Unfortunately, until recently, Nepal's school curriculum did not have a DRR component. In fact, it was assumed that not only was there no need to capacitate students to deal with DRR but that DRR was too big an issue for students to grapple with. How wrong this assumption turned out to be.

Prior situation

Until recently, DRR was one of the least discussed and least practiced issues in schools. Though a country's school curricula one of the best means for channeling DRR education, neither the government nor development agencies capitalised on this potential. The little information provided to students was limited to the causes and consequences of climatic hazards, including floods, drought, landslides, earthquakes, hail, and thunderstorms, but did not touch either on what makes hazards disasters or on DRR. Though officials and development workers realised that mainstreaming DRR in Nepal's school curriculum would be an excellent way to disseminate DRR knowledge on a large scale, no initiatives were taken.

Box 1

The CDC is ready to mainstream DRR in primary level education

In the opinions of education, curriculum and DRR experts, the existing school curriculum needs to be revised to include DRR-sensitive curricula in every grade. With the project, we incorporated DRR only in the secondary-level curricula, but we will include DRR in the curricula of other grades as well. I think the CDC itself will lead the initiative to mainstream DRR with its own resources.

Mr. Haribol Khanal, Executive Director, CDC

Process

In order to mainstream DRR in the school curriculum, the following process was adopted. First, an informal discussion was organised with AAN and some of its national partners¹¹, including the Education

11 The project design included a provision to choose national partners with defined roles and responsibilities. Education Network (ED Net) was given the job of working on national education policies and the NSET bore the responsibility of making safer schools. The Disaster Preparedness Network (DPNet), a network of more than 55 organisations working on community-based disaster preparedness, worked toward building knowledge and influencing policy and the Centre for Policy Research and Consultancy (CPRc) was given the role of documentation and information dissemination as well as policy advocacy. CPRc also worked with the Curriculum Development Centre (CDC) to successfully mainstream DRR education in school curricula though hindsight revealed that the results would have been better if the project had coordinated directly with CDC. At the international level, international strategy for disaster reduction (ISDR), Institute of Development Studies (IDS) and AAN International were involved in informing and influencing the policies and practices of relevant UN agencies, inter-governmental bodies and international NGOs. AAN also promoted advocacy by virtue of its membership in the Inter-Agency Task Force on Disaster Reduction. Because much spontaneously occurring DRR can be seen as adaptation to climate change, the project played a significant role in linking local knowledge and local expertise with the UN Framework

Network, the Disaster Preparedness Network, the National Society for Earthquake Technologies, and the Centre for Policy Research and Consultancy. The next step was holding a formal meeting with the Curriculum Development Centre (CDC) and the Department of Education of the Government of Nepal. Because the CDC was convinced of the relevance of mainstreaming DRR and of the possibility that students could serve as agents of change, the CDC gave the green light for the third step, a series of workshops and interactions among government professionals, relevant subject experts and disaster professionals. From these workshops issued the recommendation that subject teachers be sensitised to DRR. After they were trained, they were mobilised to coordinate a review of the five core subjects—Nepali, Science, Social Studies, Mathematics and Health Population and Environment—and of the examination questions with top-level officials. Their assessment found that there was a considerable gap: only 5% of the material of all five courses was related to disaster and no material was directly relevant to DRR at the local level. Next, project staff held a series of interactions and consultations with children, teachers, staff, SMCs, parent-teacher associations and community members in order to identify gaps in DRR education and to get advice on the nature of the curriculum based on their knowledge and experiences. Using their input and draft texts, the curriculum was revised. Since the annual curriculum revision session matched the project's timeframe, this process was speedy¹². At present, the task of formulating teacher guides and training modules for teachers is underway.

Changes observed

Several changes can be attributed to the addition of DRR in the school curriculum. Because they have learned about hazards, the causes and consequences of disasters and strategies to mitigate risks, students no

Convention on Climate Change. The project did not, however, capitalise on the ample opportunity to use the Association of International NGOs and its task group on disaster management to disseminate the project's good practices and lessons learned though this would have been a good way to channel information.

12 The curriculum is revised every five years.

longer believe that disasters are the result of God's will. They report that they have undergone a radical shift in attitude: they no longer fear disaster and they feel empowered to tackle problems at the local level.

Students equipped with practical DRR knowledge have managed it well, disseminating it at home and applying it at school. They now understand the roles and responsibilities of their guardians and of SMCs in reducing disaster risks by mobilising local resources and, in consequence, urge them to act. Pleased by the results of changing the curricula of the ninth and tenth grades, the CDC has taken a proactive role in mainstreaming DRR education in the seventh and eighth grades and plans to incorporate it in the primary grades in the future.

Project has successfully mobilised the National Centre for Education Development, which is the focal government line agency building the capacity of the teachers of government schools. Once the capacity of the lead trainers of the National Centre for Education Development to provide DRR education was improved, it became easy to disseminate the same message to all the education resource centres in Nepal. The project also trained 22 teachers at the National Teacher's Training Centre, conducting a training of trainers on disaster management so that participants would be able to integrate DRR sessions into their training courses. The project developed a guide for teachers about how

Box 2

The CDC is ready to mainstream DRR in primary level education

There is no comparison between the previous curriculum and the new one. Because the previous curriculum was focused on the problem of hazards—their causes and consequences—teaching was difficult because it generated fear among students about what they would do if a disaster occurred. To minimise trauma, we did not discuss the local-level consequences of disasters even though students keenly listened to TV and radio reports. Now the curriculum focuses on solving rather than simply identifying problems and provides practical tips and examples. Now we can link what is in the textbook to what happens locally. We hope that similarly informative and empowering texts are developed for the sixth, seventh and eighth grades.

Mr. Megh Raj Neupane, teacher, Janakalyan Secondary School, Bageshwori, Banke District

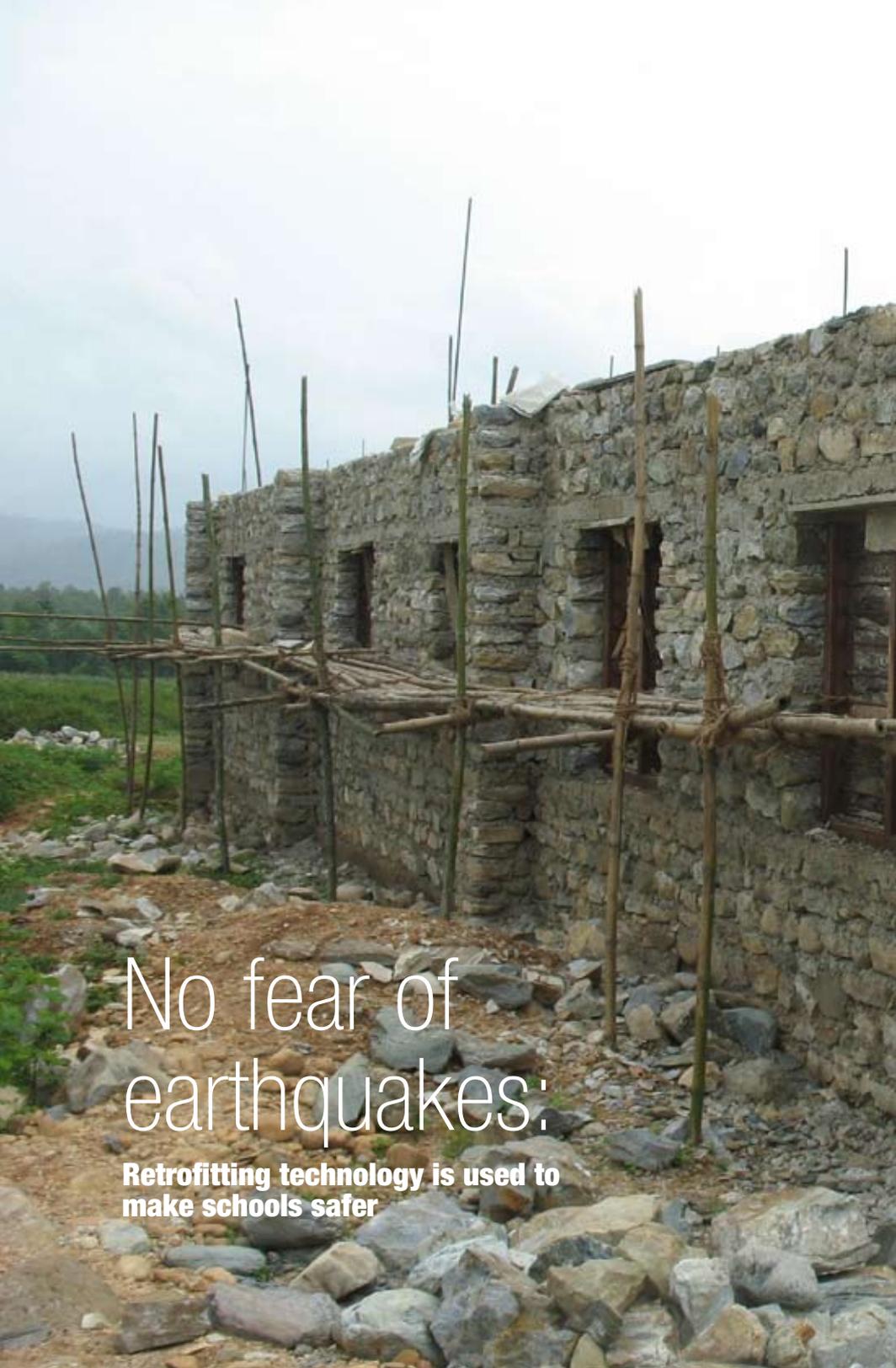
best to run class sessions on disaster education. Teachers report that it is very useful.

This initiative has also helped the government meet the HFA's third priority for action as sensitising students is an easy and fast process 'to build a culture of safety and resilience at all levels through using knowledge, innovation and education' and has built a strong foundation for changing both policies and practices.

Important lessons learned

- Because school children are important agents of change, providing DRR knowledge to them results in the speedy dissemination of that knowledge. Children transfer information about DRR to their parents and guardians, who in turn circulate it throughout the community.
- A solution-centric curriculum reduces disaster risk remarkably because it promotes a 'we-can-do' attitude.
- Mainstreaming DRR education proceeded rapidly because the CDC was involved and committed from the outset. Functional coordination with relevant government agencies is necessary if action is to be speedy.





No fear of
earthquakes:

**Retrofitting technology is used to
make schools safer**

No fear of earthquakes:

Retrofitting technology is used to make schools safer

Background

A comprehensive education system consists of structural, functional and pedagogical components, each of which has a vital role to play in DRR. While the structural component can protect children from harm during earthquakes, unfortunately, most of Nepal's old schools are dilapidated and new schools are not built using earthquake-resistant designs.

Children are often extremely vulnerable to earthquakes. On 8 October, 2005, for example, about 17,000 children died when 6700 schools collapsed in the northern mountains of Pakistan. Ironically, it was in January of that very same year that 168 countries adopted the HFA in order to build the resilience of nations and communities to disasters through the use of education. Even after that terrible disaster, Nepal's commitment remained largely on paper until the project mobilised the NSET to design retrofitting technology which makes schools safer.

Prior situation

Because resources were inadequate, most government schools were in very poor physical condition before Nepal was struck by an earthquake in 1988¹³. After that, JICA worked for seven years, from 1988 to 1995, and spent many resources developing earthquake-resistant technologies for schools. Its efforts were not scaled up, however, because the government showed little interest.

Over the next decade, neither the government nor development agencies launched any further initiatives in making schools safe. In fact until 2006, it was not even clear whether the Ministry of Home Affairs or the Ministry of Education should look after school safety. Meanwhile, the physical state of schools continued to degrade through negligence, putting thousands of children at risk of serious harm.

Process

The project launched a comprehensive retrofitting process after holding a series of interactions with stakeholders and selecting NSET to promote earthquake-resistant technology. NSET organised a two-day symposium entitled 'Experience in Earthquake Risk Reduction and Response' to build

13 After the earthquake in 1988, the only major programme conducted was JICA's construction of earthquake-resistant buildings. With reference to school safety, the Kathmandu Valley Earthquake Risk Management Project (1997-1999) undertaken jointly by the NSET and GeoHazards International developed a simplified earthquake scenario and action plan and identified a community-based School Earthquake Safety Programme as a sustainable mitigation process. The programme included various methodologies for seismic retrofitting. A structural and non-structural vulnerability assessment programme was commenced in 1999-2000 to update the seismic assessment of schools, hospitals, and other key buildings in the Kathmandu valley, but it was not fully operated. Despite such government and non-government efforts, only 700 out of about 38000, schools in Nepal have seen DRR initiatives.

Box 3

Disseminating retrofitting technology on a wide scale is important

School retrofitting technology is very beneficial: it increases safety and saves resources. The government doesn't have enough resources to construct new buildings, but the demand for retrofitting is high in Makawanpur and it costs less than building new schools. Though we do not have many resources to fund retrofitting directly, we are committed to disseminating this technology on a wide scale.

Mr. Cholendra Pandit, DEO, Makawanpur District

consensus about DRR strategy and legislation and community-based disaster risk management (DRM) and to establish a DRM policy at the national, regional and local levels. Following the symposium, quick surveys and vulnerability analyses were held with the SMCs, students and guardians of six of the project's eight target schools and local masons were trained to carry out retrofitting techniques. Earthquake drills were conducted, demonstrations made, and risk reduction education and life-saving skills initiatives organised in order to explain the rationale behind the technology to all stakeholders, including members of the wider community, and to generate more interest. After the stakeholders and schools had been sensitised, each school drafted an emergency plan which clearly defined the roles and responsibilities of various actors. The project provided a token amount of financial support to NSET, but for the most part it was communities and SMCs which mobilised the resources required for retrofitting.



Changes observed

Awareness about retrofitting technology has spread to neighbouring communities and even across districts. Six schools with a total student body of 3000 are safer, and students, teachers and parents are less fearful. Obviously, the masons who were trained to carry out the work have benefited, not just financially but also professionally. Other earthquake safety measures, including equipping classrooms with two outward-opening doors, large windows for lighting, and separate desks and chairs, have also been introduced. In addition, more people

are aware about what to do and what not to do during and after an earthquake. In particular, PVA enabled students to identify areas of high, medium and low risk and taught them how to react initially, how to exit the classroom after the shaking subsides, and where to gather afterwards. The CDC has also changed: realising that its curriculum was incomplete and that school-level initiatives could make a difference, it added a unit on earthquake DRR to ninth-grade textbooks.

The project's success with retrofitting technology also helped revitalise JICA's school safety initiative. Through the project's continuous advocacy and campaigning, some policies and practices have been revised and duty bearers have assumed a positive, action-oriented position regarding the dissemination of this technology. The confusion between the Ministry of Home Affairs and the Ministry of Education was resolved with the Ministry of Education assuming responsibility for school safety. Because the six project schools have been renovated, school resources ordinarily spent on annual maintenance can be channeled into other needs.

Box 4

Disseminating retrofitting technology on a wide scale is important

Teaching is not very effective if the physical facilities of a school are poor. The psycho-social condition of children who study in a structurally unstable classroom is not good. Because they fear that the building could be damaged at any time, teachers do not deliver their lessons confidently and students do not receive that knowledge efficiently. Since our school was retrofitted, we teachers and our students have been much happier.

Mr. Ramananda Tiwari, Teacher, Mahendra Secondary School, Matehiya, Banke District

Earthquake-resistant technology has already been replicated and more scaling up promises to come. Three teachers at Bansagopal Secondary School have made their houses earthquake-resistant. Also positive is the fact that many people in Banke and Makwanpur districts have consulted local AAN partners about the technology. In fact, to address the growing interest, the Makwanpur District Education Office (DEO) plans to set up a separate desk.

Stakeholders have realised the importance of establishing

community- and district-level building codes. In response to a series of student rallies and campaigns, duty bearers have committed themselves to establishing and enforcing codes, thereby helping to fulfil HFA's priority action 3. ActionAid International's commitment towards an international strategy for disaster reduction has also been fulfilled through this initiative.

Members of DMCs and child clubs have identified and marked the safest places in schools and in settlements to serve as places of assembling in case of an emergency. Evacuation routes and safe exits have also been identified and marked and all stakeholders have been informed about them. Though these efforts are small, people feel much safer. Students and teachers now know how to practice the 'duck, cover and hold' techniques and are aware of the *do's* and *don't's* during and after an earthquake. In addition, each project school has an earthquake evacuation plan. In recognition of the need to make schools safer, the government of Nepal (GoN) has provided many schools with extra resources. Balkumari Secondary and Buddha Jyoti Schools received Rs. 1,500,000 and Rs. 600,000 respectively to upgrade their facilities under the close supervision of NSET. Balkumari's library was renovated after the DMC found that it was on the verge of collapse. A total of 4500 students who attend the project's DRR schools are now physically safer from the risk of earthquakes; they also report that their fear of earthquakes has been reduced. These schools serve as models for other



schools and communities and have spurred DEOs into committing to transfer earthquake-resistant these technologies to other schools too.

The fact that trained masons are paid better wages than those who are not trained and have a good reputation in society suggests that people's attitudes toward safety have changed considerably.

In addition to retrofitting, the project carried out other initiatives to reduce physical risks. As children requested, school resources were used to construct large windows for better lighting, separate desks and chairs, two doors in every classroom, and railings. However, no school has built outward-opening doors as DRR demands. Because of children's efforts in advocacy, new houses have been built in safe areas.

In order to advocate retrofitting technologies on a large scale, the 45 local masons (often termed 'local engineers') trained by the project were mobilised in semi-urban areas. All of them are both informed about and skilled in earthquake safety and locals consult them before constructing new buildings and about retrofitting old ones. People are slowly adopting the new, safer technologies. The fact that trained masons are paid better wages than those who are not trained and have a good reputation in society suggests that people's attitudes toward safety have changed considerably.

Now that schools understand all the benefits of safety and security and people are fully convinced that they have the right to live in a safe place, they have been claiming their rights from duty bearers, including district development committees (DDCs), DEOs, and village development committees (VDCs) for external resources. In other words, the project was successful in empowering communities to claim their rights.

Because VDC, DEO and DDC officials attend PVA exercises, they develop a good working relationship with communities. Both locals and officials have now realised the importance of observing building codes.

The project's efforts have had a national-level impact. A symposium on experiences in earthquake risk reduction and response held in Kathmandu jointly with other agencies disseminated the key message that risk reduction strategy and legislation must be developed and adopted and that community-based disaster risk management must be promoted. It also encouraged networking for DRM at the national, regional and local levels and opened many avenues for advocating policies which promote school safety in Nepal.

The DEO Makwanpur has adopted a provision that it will support only those plans for school construction that incorporated earthquake-resistant designs. It provides three-quarters of the cost, while SMCs are required to contribute the remaining one-quarter. Policy planners and decision-making authorities have acknowledged the importance of safe school technologies. The DIPECHO IV and V projects and other projects run by INGOs have realised the importance of earthquake safety in schools.

Important lessons learned

- Before introducing a new technology, it is essential to sensitise and empower a community using drills, interactions and talk programmes.
- Local stakeholders are enthusiastic if new technology uses locally available resources.
- Training masons yields a group of 'local engineers' who can adopt and replicate the technology in a sustainable manner.



Analysing
vulnerability using a
participatory approach:
**Helping people claim their rights and
take appropriate action**

Analysing vulnerability using a participatory approach:

Helping people claim their rights and take appropriate action

Background

Because people are ill-informed about the concept, different forms, and underlying causes of vulnerability they find it is difficult to analyse. Another problem in its analysis is that the conventional development paradigm has not accorded the perceptions of local people and duty bearers—the stakeholders in DRR—sufficient attention. This neglect flies in the face of logic as it is precisely local people who have the most knowledge and understanding about their vulnerabilities and their coping strategies. What local people lack is a broader perspective about the causes and consequences of disaster. To remedy these gaps and make sure that DRR succeeds, PVA is essential. Only through PVA can vulnerable people be empowered to claim their rights and take appropriate

action. It is especially important the most vulnerable to disasters—children, women, the elderly, and people with disabilities—be involved.

Prior situation

The problem is dual: on the one hand, the vulnerable, particularly children, women, the elderly, and persons with disabilities, have too little understanding about the causes and consequences of disaster risks and about areas of vulnerability; and on the other, the government and development agencies initiate projects without analysing of vulnerability. The result is that the physical infrastructures like improved roads, culverts, drainage pipes, and torrent controls which are built in the name of managing disasters do not address the needs of vulnerable people. This conventional approach is lopsided: while it does address physical vulnerability, true, but overlooks social, institutional, motivational and perceptual vulnerabilities. Another problem that has arisen is that vulnerable people expect external support to carry out activities that they themselves are capable of carrying out. The conventional approach is ineffective: instead of learning to deal with disasters, communities continue to bear huge losses every year.

Process

This project took an alternative approach: it held many sensitisation, orientation and talk programmes which involved various stakeholders of different levels in order to make them aware of DRR and the importance of PVA. The result was shared learning. In the process, the voices of vulnerable people—their knowledge, experiences and ideas about DRR—were heard. Training and capacity-building initiatives on the nature, forms and mitigation of vulnerability were organised for teachers and students, SMCs, parents teachers associations (PTAs), and the wider community. While conducting a PVA, care was taken to give priority to the most vulnerable groups and locations within a community. PVA orientations held at the district level involved district-level stakeholders

like representatives of DDCs, DEOs, district administrative offices, the Nepal Red Cross Society and other I/NGOs familiar with vulnerability analysis.

Changes observed

Conducting PVA made it easier for duty bearers to mobilise external resources to reduce vulnerability because it increased levels of involvement and collective action.

In Makwanpur, for example, Banshagopal Secondary School secured Rs. 1.3 million from the DEO for the construction of a new school block. The most vulnerable groups—women, children, people with disabilities, and the elderly—have become more empowered. After PVAs were conducted DMCS were formed in communities and in schools and community-based disaster preparedness (CBDP) plans were formulated.

These plans include both the preparedness and mitigation aspects of DRR.

The introduction of the PVA helped local people develop their skills of self-analysis. They can now identify their vulnerabilities and use that information to take action. Children have been particularly successful in coming up with practical solutions to reducing their level of vulnerability. They say that they are more aware of disaster-induced hazards and associated risks in school and at home. Communities feel more capable of addressing their vulnerability as communal relations and social unity are stronger, community-based organisations (CBOs) have been formed, and group activities have been launched. Women are better organised

Box 5

Conducting a PVA is must before asking the DEO for resources for the physical improvements

PVA has helped us explore the root causes and effects of vulnerabilities as well as to come up with solutions using a participatory approach which results in a plan of action which defines roles and responsibilities. For the first time, the DEO was involved in PVA training and follow-up activities. I realised that, grants for physical construction are not meaningful without PVA. I advise other schools to conduct PVAs before making their demands known to the DEO.

Mr. Cholendra Pandit, DEO, Makwanpur.

than they were and more likely to urge duty bearers to act. They are now a part of the decision-making process. They have also embraced their rights and seek to end discrimination and violence against women.

PVA has made it possible to form local- and district-level networks that serve as a platform for capacity-building, training, experience-sharing, advocacy and resource mobilisation, all exercises that assist communities in implementing their action plans. These networks have also organised advocacy campaigns; in fact, DRR was incorporated in the district education plans of Makwanpur and Banke precisely because of their continuous lobbying. Networking also resulted in the preparation of

contingency plans for emergencies with the active participation of school children, teachers and community members. Through PVA¹⁴ related advocacy, other substantial changes many involving improvements in physical infrastructure, have been made. The students of Churiyamai Secondary School, Makwanpur, for example, successfully lobbied for the removal of a high-tension line that passed through the school compound. In Sunakothe, student pressure made the community realise the risks posed by wooden electricity poles and arrange to have garbage removed from community-managed ponds¹⁵. Again because

Box 6

PVA results in the development and enforcement of action plans

We were sceptical that DRR could be carried out at the local level through the mobilisation of local resources, but we now realise that there are no resource constraints. The most central step is to identify the root causes and possible areas of vulnerability and risk reduction. The strength of PVA is that it results in an action plan in which people agree upon the allocation of roles and responsibilities.

Mr. Santosh B.K., Bageshwari, Banke District

14 The use of the PVA tool to identify various forms of vulnerabilities and make plans for immediate action was highly successful. Local stakeholders claimed that PVA analysis helped them feel safe. Involving both primary and secondary stakeholders, including DEOs, in the PVA process promoted understanding of the context and realisation of the need for prompt action and helped DMCS mobilise external resources to create safer schools. PVA exercises conducted at the district level helped DEOs realise their roles and responsibilities in providing good quality of education in a safe environment.

15 Because houses in Sunakothe are too close together for a fire engine to draw near enough to be effective, the DMC renovated five ponds to use to fight fire.

of student campaigning, part of the compound of Balkumari Higher Secondary School Sunakothi, Lalitpur, has been fenced to prevent cattle from wandering in. This school got funds from the DEO and the VDC to complete the fence and to pave the school grounds with stone. Improvements to drainage systems in Banke have mitigated the likelihood of flooding around the school and in the community. The SMC of Janakalyan Secondary School managed to get Rs. 140,000 from Plan Nepal and Rs 26,250 from the project to construct a school building with four rooms. Mahendra Secondary School, Banke, built a compound wall with Rs. 51,250 (Rs. 15,000, Rs.10,000 and Rs.26,250 respectively from the VDC, the SMC and the project). All these small projects were made possible by the lobbying of schoolchildren and the commitments shown during PVA.

PVA was helpful in empowering students, teachers and communities to analyse their vulnerabilities and take proactive DRR steps. The PVA process was documented and shared with district-level stakeholders and actors in order to draw their attention to the need for further planning and resource sharing. The PVA approach is highly relevant because it sees disaster awareness and promotes action for DRR through the right lens. PVA was successful in raising people's voices in national forums and in helping to influence policymakers to reduce



disaster risks. It helped identify non-disaster issues like domestic violence, discrimination and safety hazards in the community as well. In many places, PVA exercises resulted in community development works. In Bageshwori, Banke, for example, people used VDC funds to gravel the roads in order to reduce risk, especially during the monsoon.

Once DEO personnel and district-level stakeholders had taken part in district-level PVA exercises, the demand for more such exercises increased. For example, Lumanti held PVA exercises in Nepal Darbar High School of Ranipokhari and Janajagriti School of Kapan. As a follow-up both schools framed action plans with the help of the SMC, PTA, and children. PVA acts as an advocacy tool for mobilising internal and external resources. In Makwanpur, for example, Banshagopal Secondary School secured Rs. 1.3 million from the DEO for the construction of a new school block.

The PVA tool is widely used by other agencies to analyse the various forms of vulnerability and take immediate action. PVA is not limited to this project; it has become a regular process in other projects run by Lumanti and the BEE group. To cite an example, in a sanitation project funded by Concern Worldwide in Banke, the PVA process was used to identify and analyse risk and vulnerability. The BEE Group used the



PVA approach in a project it implemented in Bageshwori, Banke with funding from Heifer Nepal. Lumanti, for its part, used PVA in its Bagmati Conservation Project in Kathmandu and a water and sanitation project in Banke. Inspired by the role of DMCs in risk reduction initiatives, communities in neighbouring VDCs established their own DMCs. Gangapur, Phattee pur, Binuna, Kamdi and Manikapur VDCs of Banke all established VDC-level DMCs and Gangapur and Phattee pur VDCs allocated Rs. 25,000 and Rs 100,000 respectively for emergency funds.

Because of project's rights-based approach and focus on empowerment, seen specifically in PVA, it was able to help those who have never been heard to speak up; the project is a tool for getting voices heard. Since children have learned about DRR, their voices have become louder. Engaging in advocacy and campaigning for DRR boosted their confidence about demanding their rights from relevant stakeholders. As a result, child-led sanitation campaigns have been initiated and some VDC resources have been allocated for toilet construction. Small-scale infrastructures like temporary river crossings, drainage systems, and culverts, which children requested during PVA exercises have been constructed. Because their demands are addressed, children are encouraged to support the DRR initiatives that DMCs run in communities and in schools.

Because of project's rights-based approach and focus on empowerment, PVA helped those who have never been heard to speak up; the project is an avenue for making voices heard.

Important lessons learned

- Since communities know more about their vulnerable spots than outsiders do, they should be at the forefront during vulnerability analysis.
- Before a PVA is conducting the project must establish clear lines of communication among local- and district-level stakeholders in order to build trust and accountability and create an environment conducive to the participatory process. If this is done, PVA can be an effective tool in generating the external resources needed to carry out the activities in a plan of action.
- Because of its rights-based perspective and focus on empowerment, PVA helps those who have never been heard before to speak up; it is an tool for getting voices heard.





**WORKSHOP ON
INCREASING OF DISASTER SENSITIVITY
IN
SCHOOL CURRICULUM & TEXTBOOKS**
April 2011 Muktapur.
Ronald

Dissemination of
DRR education:
**Key to reducing disaster risks at
the local level**

Dissemination of DRR education: **Key to reducing disaster risks at the local level**

Background

In recent years, as climatic variability and the frequency of disasters—floods, fires, landslides, new human and livestock diseases, and new crop pests—have increased, local people have been hit hard. DRR education and knowledge is essential if such dire impacts are to be reduced. Experience has shown that children are badly affected by disasters because they do not have sufficient knowledge to protect themselves.

Until recently, stakeholders have not accorded DRR much priority or spent much time discussing it. However, now that school children, teachers and community members have realised the importance of DRR in reducing the possible risks of climatic hazards, they have begun to discuss and implement DRR to

minimise their vulnerability and increase their resilience. Extra-curricular activities, capacity-building and the dissemination of information about DRR through information education and communication (IEC) materials are needed to change people's attitudes toward disaster and to increase their awareness.

Prior situation

Neither school children, their parents nor community members knew enough about DRR to be able to minimise the risks through preparedness and mitigation initiatives. People had very few effective local coping mechanisms for dealing with a disaster and its immediate aftermath. There was no information-sharing mechanism either. What prevailed was fatalism: people believed that disasters were the consequences of human misdeeds and that they could not be prevented or minimised. This mindset served as a major obstacle to implementing DRR initiatives.

Though the project communities are resourceful in other areas, they had made very little collective effort to reduce the risks of disaster through local resource mobilisation and management. They had fallen into a culture of waiting for others to help them carry out initiatives they could easily undertake themselves; whether it was building a wooden bridge, constructing a small culvert, installing hume pipes along the road for safer mobility, fencing school compounds, or carrying out plantation to prevent soil erosion and landslides, they delayed immediate response and rehabilitation. As a result, the impacts of disasters were growing more severe and even nominal precautions were not taken. It was also difficult to design relevant interventions to reduce risks because there was no participatory analysis of vulnerability and risk.

Process

In order to raise awareness about DRR, sensitisation and orientation meetings were organised at different levels at different times. Once school students and teachers had been fully sensitised, it was necessary to establish an institution that would work exclusively for DRR, so DMCs were formed in each target school and in its community. Extra-curricular¹⁶ music, poem, quiz, essay, street drama, cartoon and folk song competitions were organised to increase knowledge about DRR among students. Children painted pictures of disasters and invited the public in cultural programmes which highlighted the roles of children in DRR. Besides being provided with knowledge, locals also honed their skills and learned to use the equipment provided to them. In particular, they learned how to save lives by participating in drills and watching street dramas on four themes—earthquakes, floods, fires and sanitation—identified through PVA. Training in first aid¹⁷, search and rescue, and disaster preparedness techniques as well as in PVA also served to disseminate knowledge about DRR. Being trained in search and rescue and being provided with equipment to conduct such initiatives increased people's

Box 7

Street drama is a powerful means of disseminating knowledge about DRR

In my opinion, street dramas are one of the best ways to communicate knowledge to the community. They benefit students, teachers and guardians. They are the most effective and sustainable means of awareness-raising because the level of participation is high and people are very willing to watch and listen to the message being converted. I realised for the first time that all the people in my neighbourhood came to watch every single drama. To promote DRR education, more street dramas should be performed.

Mr. Saroj Lama, DMC Chairperson, Balaju, Kathmandu, District

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- 16 Inspired by these extra curricular activities, the child clubs of the project schools have continued to hold mock drills and talk programmes on the last day of every month. Each DMC has prepared a community-based disaster preparedness plan which adequately analyses vulnerabilities, identifies actions, and assigns responsibilities among members.
 - 17 The project increased first aid skills in schools and communities. In the past, the lack of information saw many bad practices used in the name of first aid, but now students and teachers, the first responders, are capable of treating bleeding, fractures and shock providing artificial respiration, carrying patients safely, and making stretchers. Projects schools have also created health funds in order to purchase 12 different kinds of medicine.

confidence about their ability to respond during a flood. The production of IEC materials on DRR, including posters, pamphlets, and booklets, further strengthened people's understanding. Students were given books, comic book, stories and maps which contained messages about DRR.

Changes observed

Once their capacity to address DRR had been built through trainings, students were able to identify these areas most prone to vulnerability, risk and hazards, explore of their specific issues and concerns, and come up with coping strategies. Children formulated DRR plans and programmes based on their analysis of the existing problems, a process which enhanced both their capacity and that of the community to cope and cemented their understanding of DRR. Emergency funds were established and have begun to be used by mobilised DMCs. Students and community leaders better understand how their coping and adaptation strategies can be tailored to different hazards in order to address their root causes. By identifying risks and hazard areas, locals better understand the likely impacts of disasters and the resources needed to counter them; this knowledge, in turn, made it easier for them to formulate DRR plans. A series of review and reflection workshops and interaction programmes helped people contemplate how disaster erodes their lives and livelihoods and what sorts of initiatives need to be undertaken to reduce the impact of disasters.

Putting into action their newly acquired skills and knowledge, schoolchildren carried out sanitation campaigns¹⁸ and planted vegetation in school compounds and at their homes. That DRR education was effective is evidenced in the number of community initiatives it inspired: river banks were protected using bio-engineering

18 Children acquired life skills related to water- and vector-borne epidemics. Inspired by the child-led community cleanliness program in other areas of Nepal, the child clubs of this project worked to make their schools and communities more sanitary and have begun to pressure local-level stakeholders to adopt a one-house-one-toilet scheme. They created and performed street dramas about the importance of community sanitation in reducing the risk of epidemics. In Matehiya, 15 households built toilets after watching a drama and the village of Bageshwori has declared itself open defecation-free. Child clubs have promoted the management and conservation of drinking water sources. People understand that raising hand pumps can ensure that they will have clean water even in the aftermath of a flood.

technology¹⁹, temporary wooden bridges were constructed, hume pipes were installed, and flood runoff was diverted. DRR education also inspired communities them to prepare action plans which clearly defined roles and responsibilities and which stirred local- and district-level stakeholders to extend their support. With a plan and support, communities are now more able to implement, monitor and evaluate DRR activities. Since they are now aware that even simple activities can reduce risk, they are less likely to wait for others to act on their behalf.

Students in Sunakothe of Lalitpur were inspired by DRR education to clean several small ponds even though it wasn't Sithi Nakha, an annual Newari water festival during which water bodies are maintained. These ponds had grown so dirty that the threat of an outbreak of disease in the densely-populated community was great, but people, fearing they would anger the snake gods which inhabit water bodies, had not acted. It was education that disaster—here, an epidemic—is not caused by God that helped them change their attitudes. Parents have begun to listen more to their children's ideas and to work with them to implement DRR. Now that skills and knowledge about DRR have been imparted through DRR education, fears about the impact of hazards has abated and confidence has surged. Many

Students in Sunakothe of Lalitpur were inspired by DRR education to clean several small ponds even though it wasn't Sithi Nakha, an annual Newari water festival during which water bodies are maintained.

19 To combat soil erosion, a major cause of physical vulnerability, especially in Makwanpur, the project implemented bio-engineering works, including the plantation of fast-growing plants which have the capacity to hold soil including bamboo, gulmohar, jamuna, broom grass and camphor. To reinforce these bio-engineering efforts, small-scale mitigation works were carried out in strategic locations. However, because the plants are still small, erosion has not been eliminated. It will take additional time to see results. The fact that district soil conservation offices have offered their support in scaling-up bio-engineering technologies is encouraging. In Makwanpur, river cutting was minimised by constructing a spur with 200 gabion boxes. Balkumari Secondary School, Sunakothe, Kathmandu, now has a green belt to its east thanks to the plantation of 300 seedlings. Similar types of bio-engineering activities have been taken up in Rasuwa District too.

behavioural changes regarding minor matters were observed: students no longer leave the classroom during a heavy thunderstorm and do not cross torrential rivers without careful consideration. They also know that during an earthquake they should not run out of the classroom until the earth has stopped shaking. More families have planted vegetation on their private land and are making mud rather than wooden *deheri* to store grain so that there is less risk of fire²⁰. New houses are built with two stories in order to increase safety during flooding.

Box 8

IEC materials and cultural shows are effective in increasing knowledge about DRR

We never used to be familiar with those areas within our community and school that are vulnerable to risks and hazards, but now, because of PVA, we are. In order to minimise risks through DRR education, I think it is necessary to identify these areas. Now we can make and implement appropriate plans and programmes. IEC materials and cultural shows are also effective in increasing knowledge about DRR among children and their guardians.

Mr Raj Kumari Harijan, Matehiya, Banke District

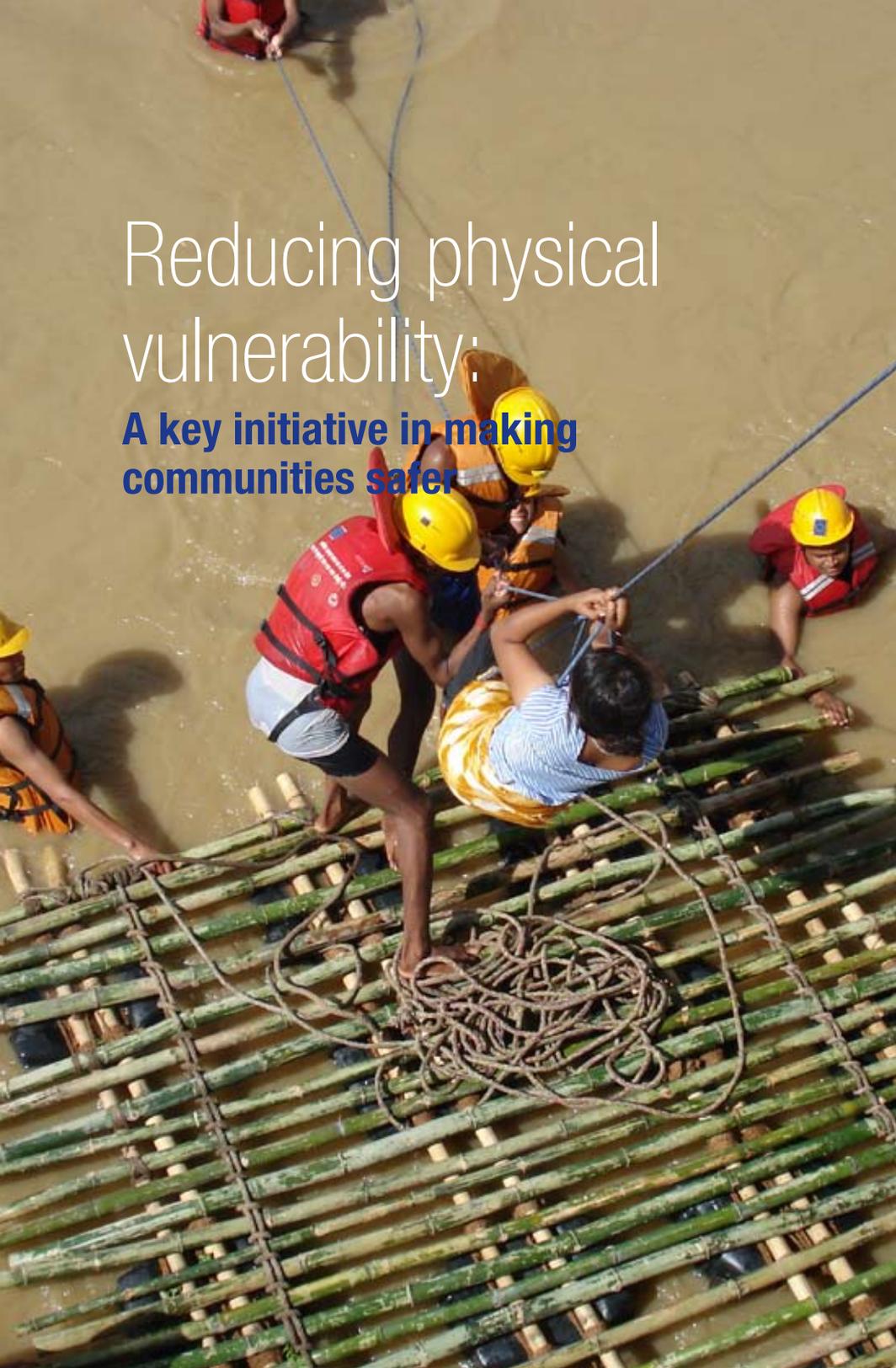
Important lessons learned

- Street dramas are an effective means of disseminating DRR messages among students; because of their emotional appeal, plays are remembered for long periods and are very popular.
- DRR education provided at school helps change student behaviour both at school and at home; parents, too, adopt different actions.
- Extra-curricular activities are important because they stimulate students' interest in DRR activities and encourage high levels of participation.
- Children are very vulnerable to disasters, but they also serve as key disseminators of messages designed to reduce the impact of disasters.

20 Because the project has built knowledge and skills to address fire hazards, people are more confident about implementing fire safety measures. By coordinating with the fire brigade teams of local municipalities, people at the very least know how to manage a fire brigade in case of need and have used drills and simulation exercises to make sure that they have the practical capacity to act as well. Both private households and offices are more likely to have fire extinguishers; Swarna Multipurpose Cooperative of Sunakothei is one of them. However, no partner or school that the project has worked with has any fire fighting equipment.

Reducing physical
vulnerability:

**A key initiative in making
communities safer**



Reducing physical vulnerability:

A key initiative in making communities safer

Background

DRR needs to address physical vulnerability in schools and communities. The physical threats to life and wellbeing that children face during and after disasters—or simply those that they imagine will occur—are traumatic for children and can lead to psychological scarring. Children need to live in a secure environment in order to be able to cope with adverse situations and, thereby, contribute to building resilience at school and in the community. Parents, school teachers, VDCs officials and other duty bearers are responsible for providing security, reducing vulnerability, increasing the ability both to survive and to cope with disaster. Just as children must participate in development in general, they also must participate in DRR efforts to make communities safer. Unfortunately, too little attention has been given

to children's participation. Although the needs of children during emergencies are considered, it is mostly from the point of view of adults acting on behalf of and in the best interests of children. This project took steps toward making sure that children were able to voice their own ideas about how to reduce physical risks and make communities safer.

Prior situation

Before the project's intervention, there were many examples of physical vulnerability. School buildings were often physically weak because they had neither pillars nor beams to support the brick walls. There were few railings on verandas and concrete stairs, so obstacles and slippery conditions often resulted in falls. Most schools were crowded and lacked proper drinking water and toilet facilities.

The positioning of tall trees and wooden electricity poles next to schools and homes also posed risks. The root systems of trees had cracked some school buildings and their height had increased the likelihood of a lightning striking. In some places, trees were so old and decayed they could have toppled over, hurting students in the vicinity. Some school buildings had no roofs as unsecured CGI sheeting had blown away in heavy winds. Others had no compound walls, so young children were regularly injured in road accidents, or they used barbed wire fencing, which resulted in injury. Playground surfaces were rarely level and the risk of snake bite was high because of the amount of wild vegetation.

The monsoon season posed a particular risk. Small torrents developed easily, especially because roads were poorly built. The practice of letting livestock graze at the edges of roads had further degraded the conditions of roads. The improper placement of hume pipes, which blocked rather than facilitated drainage, was another problem, and the flooding of roads was common. In places, school compounds and their

surroundings were waterlogged due to poor drainage and encroachment by torrents and flooded rivers. Local bridges without railings posed further risks. In Balaju, for example, there was no railing on the bridge over the Bishnumati River, and a member of students had fallen into the river as a result.

Process

Following sensitisation and orientation at each of its six target schools, the project facilitated the establishment of child clubs and inclusive DMCs with the active participation of children, teachers, SMCs and PTAs. These steps and the adoption of PVA at the school and community level helped local people identify the most physically vulnerable and risky areas. Armed with this knowledge, they were able to develop school and community safety plans that specified the roles and responsibilities of each stakeholder. Once detailed plans had been prepared, mobilising the resources needed to make safer schools and communities through advocacy was easy.



Changes observed

Houses are now made with a raised plinth and water runoff from forested areas is diverted. Crossing rivers has been made safe with the construction of temporary wooden bridges. In part with project-supplied seed money—Rs.10,000 was given to each DMC—shelters were

constructed²¹ Janakalyan Secondary School Bageshwori, Banke District for instance, constructed a shelter with support from the project, the DEO, the VDC and local contributions.

At some schools, compound walls have been built, railings installed, seedlings planted and buildings retrofitted. Elsewhere river banks have been protected with bioengineering work. Student efforts resulted in the pruning or felling of dangerous trees and the dismantling of wooden electricity posts. CGI sheets were secured on roofs and playgrounds were leveled. Bushy undergrowth around homes and schools was cleared. Because of persistent advocacy and campaigning, DEOs contributed up to 50% of the cost of implementing school development plans, which included DRR activities like constructing compound walls or fences, separating desks and benches, planting small trees, and constructing earthquake-resistant school buildings through retrofitting.

Box 9

Now our school is safer from possible disasters

Since our classroom is on the first floor, we have to climb up a ladder to get to it. When I was in grade 8, I fell because it had no railing, and I could not do any work for three months. Now I am in grade 9 and have learned a lot about DRR through my textbooks. With my friends, I told the headmaster and the SMC about the unsafe ladder and now we have a railing. Our school is safer now.

Mr Keshang Tamang, Ramche, Rasuwa District

It is now possible to mobilise resources to construct minor infrastructures designed to reduce physical vulnerability. Emergency funds were established to promote safer schools and communities. To

21 In the past, due to a lack of foresight among policy planners and decision-makers, schools were often used as shelters for the community, thereby violating children's right to uninterrupted education even during an emergency. To address this problem, shelters which serve as relief centres for displaced families were built within school premises using PVA exercises to identify appropriate locations. The construction of these shelters has provided children and communities with benefits even during non-emergency periods: they are used to conduct health check-ups, stage community feasts and festivals, hold training and orientation sessions, and run extra classes for students. In Bageshwori, Banke, for example, an earthquake-safe building with two large rooms, each of which accommodates roughly 40 people, was constructed in the vicinity of Janakalyan Secondary School at the total cost of Rs. 2,025,000. The money earned from renting the building to hold trainings—a total of Rs. 10,000 thus far has been deposited in the DMC's fund.

cite just one of many examples, the students of Banshagopal Secondary School, Makwanpur District collected one rupee from every student and Rs 10 from every family. Other schools in Makawanpur replicated a similar initiative.

Locals are more capable of and likely to adopt practice which reduce the risks of disasters. Some practices have been completely changed: clay grain storage vessels have been replaced with wooden *bhakari* placed at heights above the normal flood levels and the plinth levels of many houses, especially those in flood-risk areas, have been raised. Families also store dried food items for use during the monsoon and keep important belongings in safe places. They have abandoned thatched roofs for CGI sheeting or tiles in order to reduce the danger of fire and have initiated community-led total sanitation, including toilet construction, through building awareness. People have even moved their homes from dense settlements to safer places. In Matehiya, torrent run-offs have been diverted after taking upstream and downstream linkages into consideration and the practice of shifting cultivation has been banned. All these initiatives have reduced people's vulnerability and thus the risk of disaster. Now that local are more prepared, they are more confident and more inclined to continue to work to prevent and mitigate disaster.

Box 10

We were successful in changing mindsets and making our school and community safer

Since the project starting working with us, we have learnt many things about DRR. The most outstanding changes are that the school grounds have been levelled and tall trees next to schools have been trimmed to lessen the risk of a lightning strike. The community's cremation site has been relocated far from the school, community owned ponds cleaned and wooden electricity poles removed. These changes have made schools and the community safer. I think there are still many more things to do to make schools safer but we have made a good start.

Mr. Santosh B.K., Bageshwari, Banke District

Important lessons learned

- PVA helps identify the most vulnerable areas in a community and ways to reduce physical vulnerability to disaster related risk. It is also a powerful tool to generate the resources needed to make schools and communities safer.
- By making plans for implementing safety measures, the participation and mobilisation of duty bearers increases and risks and vulnerabilities are shared.
- Schools and communities can be made safer by mobilising local resources. A small initiative can save the lives and livelihoods of thousands. It is wise to address the root causes of potential disasters before their impacts multiply.



Spreading knowledge about the HFA at different levels

**Increasing government commitment to fulfilling
the HFA**



Spreading knowledge about the HFA at different levels

Increasing government commitment to fulfilling the HFA

Background

In January 2005, Nepal, along with 168 other countries, signed the HFA at the World Conference on Disaster Reduction in Kobe, Japan, and committed itself to building the resilience of nations and communities to disasters. The HFA provides a strong basis for governmental organisations as well as local, regional and international NGOs to act. The HFA has five priorities for action: (i) ensure that DRR is a national and local priority with a strong institutional basis for implementation, (ii) identify, assess and monitor disaster risks and enhance early warning, (iii) use knowledge, innovation and education to build a culture of safety and resilience at all levels, (iv) reduce underlying risk

factors, and (v) and strengthen disaster preparedness so as to ensure effective responses. Its three strategic goals are (i) the integration of DRR into sustainable development policies and planning, (ii) the development and strengthening of institutions, mechanisms and capacities to build resilience to hazards, and (iii) the incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes. In order to achieve these priorities and goals, each government has to address risk and hazards in its national curriculum, make schools physically safe and resilient, and promote a culture of safety in schools and communities.

Many of the activities of this project used both software and hardware measures to fulfil the third priority action of HFA. Mainstreaming DRR education in the school curriculum, making schools and communities safer through small-scale construction activities and contributing to the formulation of DRR policies and acts at the national level through meaningful coordination and linkages were some of its key initiatives. It also conducted capacity-building exercises and carried out studies and research in order to disseminate the key outputs of the HFA.

Prior situation

Though Nepal signed the HFA in 2005, no action plans were formed until early 2007, when point national-level plans for implementation at the ministerial level were drafted. However, these plans were inadequate and vague and virtually no steps were taken at the local level. Schools, which are one of the best platforms for disseminating the key messages of HFA, were not even considered as a potential forum.

Process

The first task was to share the HFA and its mandate and ways to contribute to it. Multi-faceted and multi-stakeholder engagements were used to disseminate the ideas contained in the HFA at the local, district, regional and national levels. Capacity-building initiatives, including trainings, orientations, sensitisation workshops, talk programmes, and interactions, were undertaken to share the HFA's three goals and five priority actions at different levels. Simultaneously, studies and research related to the HFA were carried out with the expectation that their findings would be disseminated.

Box 11

We contributed to the HFA at the local and district levels

We had very limited information about the HFA before the project began working in Banke District. BEE Group, a local partner of AAN, in coordination with the DEO organised many events to inform us about the HFA. Working with BEE Group, I realised that using knowledge, innovation and education to build a culture of safety and resilience at all levels requires both software and hardware activities. We are happy that we contributed a lot to the HFA even though our efforts are just at the local and district levels.

Mr Gopal Rokaya, Matehiya, Banke District

Changes observed

Though the efforts of AAN's national partners, DRR education was mainstreamed in the school curriculum. Students now learn about DRR in their formal education, a substantial achievement indeed. Another important change was the adoption of a rights-based approach and the establishment of partnerships among district and national stakeholders. DMCs were able to bring local issues to the attention of officials at the district and national levels and thereby influence DRR policy. Through PVA, people's voices were heard at national forums and helped influence policymakers. The HFA has become an integral part of AAN's human security theme.

To promote the proper use of knowledge, innovation, and education in building a culture of safety and resilience, the project published

IEC materials for widespread dissemination, showed a DRR video documentary at community meetings and schools, organised exchange visits and performed street dramas about various themes. Early warning and evacuation simulations also contributed to reducing the impact of disasters. So far, more than 1,500 local people, schoolteachers and students have attended various capacity-building trainings. Because it sees students and teachers as the key agents for change, the project's school-level programme focuses on disaster preparedness and DRR and involves students and teachers in conservation education.

School buildings were made safer and stronger after the need for minor physical improvements were identified using PVA. Communities have been made safer by mobilising local resources to construct small-scale infrastructures which reduce water-induced disaster risks, including threats to mobility. Because an environment of mutual trust was created by ensuring the transparency of plans and programmes, it was possible to mobilise government officials like DEOs, chief district officers, and other officials to promote DRR initiatives. DRR has great prospects in Nepal because of the government's high level of interest. By extending its support to the plans and programmes of the Ministry of Education, the project has helped promote the HFA.

Box 12

Knowledge of the HFA convinced us to build safer schools

When the Manekor Society first tried to explain the HFA, we were quite puzzled, but slowly we realised why DRR issues are important for schools. We spent many hours at school trying to identify how to make it safer school. Many infrastructures have been improved recently, making us safer at school. They are the result of the requests that the student club made to the SMC. I think that the HFA highlighted that school safety is a part of DRR.

Ms. Dikisangbo Tamang, Ramche, Rasuwa District

The project has contributed to the formulation of DRR policies and acts by offering feedback and technical advice in a timely, adequate and appropriate fashion. It has also contributed by organising trainings, workshops, interaction programmes and sensitisation meetings to

discuss the draft versions of proposed policies and regulations.

Through its advocacy, the project increased awareness about the HFA among the staff of the Ministry of Education and other relevant actors. The project also conducted a workshop on the HFA for the members of the Constituent Assembly (CA) members to make sure the HFA agenda is discussed in Parliament. The DRR National Platform Nepal was established



and its development charter prepared; this body will initiate DRR initiatives using a comprehensive approach. As the existing disaster act didn't satisfactorily address the complexities of DRR, the project has helped draft a new DRR policy and act and gotten it tabled at the CA.

Considering the low level of awareness of local governments and authorities about the government's commitments to international forums, the CA members were sensitised to HFA to make sure they would discuss HFA agenda. As a result, the DRR National Platform Nepal was established and its charter prepared so that DRR plans would be executed. The involvement of local governments in the DRR process at the district level helped communities to take immediate action to reduce their vulnerability and contribute to national-level policy advocacy works.

The project established a strong communication mechanism to bring local issues up to national level in order to influence policy. As the existing Disaster Act didn't satisfactorily address the complexities of DRR, the GoN formulated a new act. It has been tabled in the CA for final approval. In this process, this project has contributed a lot towards

sensitizing district and national level stakeholders. The project also contributed to the formulation of the national strategy for disaster risk management. This strategy was approved by the CA in October 2009.

Important lessons learned

- The functional coordination of and networking among district and national level stakeholders are necessary to influence national policies and practices so that they will foster the achievement of the key goals and priority actions of the HFA.
- Local plans and programmes are designed to suit local contexts and mobilise local stakeholders. They need to be aligned with district and national level plans and programmes in order to create momentum.
- Capacity-building initiatives are fundamental in the effort to inform stakeholders about the HFA, to set local priorities and to both lay out and implement an action plan of simple tasks which are designed to achieve the bigger mission of HFA.





Participatory video

An effective tool to educate and empower women and children with respect to climate change

Participatory video

An effective tool to educate and empower women and children with respect to climate change

Background

Climate change is a political hot cake, a burning issue hotly debated around the world. Its negative impacts are disproportionately felt by the poor, women, children and marginalised groups, many of whom find themselves unable to exercise their rights because of it. Given the scale of its effects, it is important to link what ordinary people are experiencing on the ground with national and international policymakers in order to generate an environment conducive to the development effective adaptive strategies. A participatory video is effective in educating the vulnerable and empowering to advocate for climate change adaptation measures.

A participatory video records local knowledge of impacts and coping strategies, builds the capacity

of locals to act on this knowledge, and advocates for support for adaptation measures from the local to the global level. It explores how the poor, women and children have been impacted by climate change, whether by more intense and frequent disasters like floods, droughts, glacier lake overflows, landslides, heat waves, and cold fog or by increasingly irregular and unpredictable weather patterns, like monsoon rainfall.

Prior situation

Despite the prevalence of global-level discussions of climate change, most project stakeholders were ignorant about the issue. It is ironic that development facilitators all over the world are attempting to reduce the severe impacts of climate change on the lives and livelihoods of local people but that local people have little understanding of what climate change constitutes. It is not that they are unaware of those impacts;

they live with them every day.

The studies of schoolchildren are interrupted by floods, landslides and drought; women are forced to travel long distances to fetch water and firewood, and men are forced to migrate for work because of declining agricultural productivity. People of every class and caste are affected, but most accept the impacts as fate. They lack an appreciation of the scientific explanation of the changes. They also lack knowledge about the adaptive



strategies they could adopt in order to be more resilient in the face of the changes. In addition, they are unaware of the power they have to advocate for a change in the status quo.

Process

In 2007 and 2008, AAN and the Institute of Development Studies at Sussex University, UK, carried out two research studies on climate change: “We Know What We Need: South Asian Women Speak Out on Climate Change Adaptation,” which highlighted how climate change impacted the lives and livelihoods of South Asian women and how they are adapting to those changes, and “Child Voices: Children of Nepal Speak Out on Climate Change Adaptation,” which did the same but had children as its subject.

Box 13

Through video, it is easy to grasp the context of climate change

Video is effective because it brings out the real situation in a community. In a discussion with an outsider, in contrast, accurate answers might not be given. A video cannot distort realities the way discussion can. It captures reality and exposes things which are hidden. Things become clearer because you see what is happening. Video can reflect the changes in the weather of the past and present and the challenges these brings changes to our lives.

Mr. Suman Budhathoki, Matehiya, Banke District.

The first step of the video study was to raise awareness about climate change. The project organised a sensitisation workshop with its national-level partners. Then, in order to introduce the new concept and to promote climate data management, a three-day training was organised for the project’s partners and community members in areas of high risk. Video was used both as a tool to conduct a PVA and as a means to convey information. It also enabled locals to communicate their concerns about and experience of climate change to policymakers at the local and national levels.

With the help of the project partners and community members who had participated in the training, a climate workshop for children was organised. About 15 children from each of the sex project schools

formed a key informant group which agreed to be part of the video. The child participants followed this process:

- learned about climate change,
- interviewed each other about climate change adaptation issues,
- watched and discussed the content of the interviews,
- decided on the priority issues for adaptation,
- created a storyboard of the documentary for local decision makers, and made the film.

***The projects
local partners
and communities
kept the video
equipment and
editing software
to serve as
community-led
development
tools.***

The local partner edited the film, keeping the message of the children intact. It also arranged local advocacy efforts, including showings of the video for communities, local governments and NGOs. To ensure the sustainability of the project, the local project partners and communities kept the video equipment and editing software to serve as community-led development tools. In addition, three project partners were trained to use participatory video for local advocacy so that in the future the participant communities could again use video as a tool of action research and with it, generate visual evidence to use in national and international campaigns.

Changes observed

Through the participatory video, women and children became more knowledgeable about climate change, its nature, its impacts and the steps they can take to cope with it. In the process of interviewing each other on camera, they grew much more confident. Since much of the knowledge and many of the skills related to climate change adaptation overlap with DRR, community capacity to deal with disasters has increased. Realisation of the importance of collectivism and volunteerism to address DRR and climate change adaptation has also increased.

The videos also contribute to the global movement for addressing climate change using DRR strategies and for promoting a participatory approach to development. Through the publicity, they raised the videos generated opportunities for getting funding for community-based adaptation programmes based on local knowledge. The films educated communities and provoked discussion and were used for advocacy at many levels, including with the NGOs, local and district governments, and even national and international organisations. Because the videos highlight issues like crop diversification, knowledge and resource management, irrigation, and locally available training in alternatives to farming, they help people improve their living standards. The ways to mitigate climate change that are presented include forest conservation, plantation, planned settlement, sensitising the larger community, and demanding budgetary allocations from local governments; viewers can draw inspiration from some or all of these measures was galvanised. Matehiya VDC of Banke allocate resources for climate change adaptation. After watching the videos and even national-level policymakers developed a better understanding of local concerns. Students have also been encouraged by the videos to advocate for change.

AAN and ActionAid International are now using the video in national and international advocacy efforts that women's and children's rights to adaptation resources be acknowledged. In particular, they hope to influence Nepal's National Adaptation Plan for Action. Clips from the women's and the children's the videos were presented at the COP-14 workshop held in Poznan, Italy, in 2008. The project linked with Institute of Development Studies, UK, to carry out two studies in 2007 and 2008

Box 14

Video increases our confidence about speaking

We used to have difficulty speaking, but now that we have used the video and seen pictures of ourselves, we have more confidence. When we saw the changes which occurred as a result of climatic change, we wanted to learn about other new things too. The video explores why our crops keep failing and why seasonal migration for work is increasing: it is all due to the impact of climate change.

Ms Soma Kumari Rokaya, Matehiya, Banke District.

The project helped make women and children more knowledgeable about climate change and its impacts and how to adapt to it.

on women and children-related climate change adaptation (CCA). The response to both reports was very positive and appreciated by their many stakeholders.

Through the participatory videos, the project helped make women and children more knowledgeable about climate change and its impacts and how to adapt to it. The video also promoted policy advocacy, lobbying and campaigning in favour of the poor, women and children at many levels, including those NGOs, local and district governments and even national and international organisations.

Because the video's highlight issues

like crop diversification, resource management, irrigation, and locally available training in alternatives to farming, they helped people improve their living standards. Since much of the knowledge and many of the skills related to climate change adaptation overlap with DRR, the capacity of communities to deal with disasters has increased.

Important lessons learned

- Communities reported liking and being more interested in the videos than in any other tool in the climate change sensitisation process. In addition, the impacts of climate change and options for adapting to it were effectively conveyed using this medium.
- Because a video can capture the key issues and promises at the local as well as the district level, it promotes follow-up and the translation of commitment into action. Participatory video makes policy advocacy, lobbying and campaigning in the favour of the poor, women and children easy.



Child-to-child and child-to-parent learning approaches

**Two effective means of disseminating DRR
education in schools and communities**

Child-to-child and child-to-parent learning approaches

Two effective means of disseminating DRR education in schools and communities

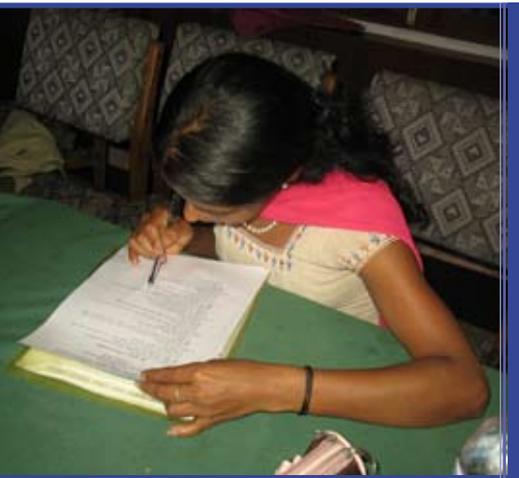
Background

Numerous examples across the globe demonstrate not only that children are very vulnerable to disasters but also that they can effectively spread information about DRR to their parents, and, through their parents, to the community. Learning by doing and believing by seeing are the best methods for building and sharing knowledge. Steps taken to ensure the safety of a family, home or asset can often be traced back to a safety lesson learned at school. Disaster awareness and education increase the knowledge of children and parents about their immediate environment and, as a result, reduce the risk a community faces. Often sharing information among peers (the child-to-child approach) can convey information about disaster risks

more clearly than any other means of education. Child-to-parent education, for its part, often enriches the knowledge of each participant and helps both refine their understanding of DRR and come up with innovative ways of reducing the risk of disaster.

Prior situation

Parents often did not recognise that their children were good sources of knowledge about DRR and did not share their own knowledge either. There was no coming together of the information provided through formal education and that stemming from life-long experience. There was no culture of learning from one's juniors, so the interesting ideas children learned at school were not implemented. At the same time, parents saw the "business" of children to be studies, not DRR. As a result, there was certain stagnation in people's thinking about DRR.



Process

The project believes that children can play an active role in community affairs that are relevant to them, including DRR, especially if they are appropriately trained and supported by their parents. For this reason, the project gave children many opportunities, from orientations to trainings, to increase their understanding of DRR. In addition, student-parent interactions were organised to demonstrate the importance of

the child-to-parent approach in knowledge building. Participants grew to like the approach. Educational campaigns were also used to build the capacity of children to carry out DRR actions within their communities: teachers, members of SMCs and PTAs, and local people were sensitised to the role that children can play. Joint parent-child exposure visits and study tours were organised so that they could actually observe DRR initiatives on the ground. IEC materials with messages about disaster-related problems and solutions were disseminated widely to DRR actors in an environment designed to promote peer and inter-generational learning.

Changes observed

The most apparent change is that children's ideas are starting to be heard. Children's learning about DRR initiatives, however limited, has had major impacts because they pass new, practically tested ideas to their parents and get them to change their behaviours and practices. For example, they have been able to pass on information about what should and should not be done during and after an earthquake occurs. Knowledge about where to position themselves and when to leave the house is now deeply rooted in the minds of both children and adults, and hopefully it will be used when the need arises. Such knowledge is relatively minor, but carries considerable significance as its application can reduce serious injury and even save lives. Communities are also more aware of the risks associated with disasters and their capacity to lessen the impact of those risks.

Box 15

Now our ideas are listened to

I still remember that though I used to tell my mother about DRR steps that could reduce disaster risks, she would just scoff at them, saying she had known all about disaster risks before I was even born. I would challenge her, saying that if she knew all about them, why hadn't she done anything? Now she listens to the messages about DRR that I bring home from school."

Mr Sukulal Pakhrin, Makawanpur District.

People's attitudes and behaviours with respect to their perceptions of and ability to deal with disaster, risks, hazards and vulnerabilities have changed for the better. Children who work in a team to prepare and respond to disasters sharpen their knowledge and understanding through application and discussion. A culture of self-reliance—of using local resources to minimise the impacts of disaster rather than waiting for relief—has been initiated. Teachers and parents now recognise that using children and school education to disseminate information about DRR works and individuals, families, and communities are now more able to cope with and respond to disaster. Through peer-to-peer exercises, children have been well-equipped with life-saving skills through a variety of inputs, including search and rescue and first aid training, drills and street drama.

Box 16

Parents learn about DRR through their children

We children really want to help others by using what we learn at school and from our peers. Parents may want to do everything themselves and may think we can't do anything, but actually if we are given a chance and some guidance, we can do a better job than they can in reducing disaster risks. Many parents in the interaction meetings said that they had learned about DRR education through us. Once parents are educated about DRR, they sharpened their knowledge by drawing upon their practical understanding and life experiences. As a result, we saw some immediate changes. For the first time, they made a temporary bridge across a small stream just for us though they themselves had no problem crossing it.

*Ms Bhim Maya Tamang, Ramche,
Rawuwa District*

Learning about DRR has given children louder voices. Advocacy and campaigning for DRR boosted their confidence about speaking up. One result is that toilet usage have increased and decreased open defecation. After children started the initiative, parents, especially women, have also begun to promote the mobilisation of resources for the establishment of emergency funds. Children have started to come up with their own ideas about improving communities and to generate resources put their ideas into action. Now that schools have helped build a culture of safety during disasters, children and their parents have started to carry out



collective action for DRR at home and in the community as well. Some people in neighbouring communities, including Matehiya, Banke, have also begun to replicate the efforts of the project villages. They, too, have begun to listen their children's tips about DRR, and children have begun to participate actively in decision-making at home and at school. SMCs have responded to children's pleas and are working to make school environments safer through retrofitting buildings, separating desks and benches, fixing doors to swing outwards, putting two doors in every classroom, and installing railings to prevent falls. In the community, children's advocacy has seen new houses being built in areas safe from hazards and some vulnerable houses being moved.

As schools are the centre of knowledge sharing and dissemination, knowledge built among students at schools can be disseminated to a large numbers of families. When students share what they learn at school at home with their guardians, that knowledge is further refined and returned to school for further validation and clarification. As children are keen to share whatever they learn with their peer and seniors, investing in building the capacity of children has good returns. Once the knowledge and skills of children increase, parents automatically benefit as they, too, learn and replicate new knowledge and skills. As a result of the combined efforts of children and parents, it was easy to promote search and rescue, first aid, and early warning systems.

Important lessons learned

- Learning in peer groups can be more effective than formal, or classroom, learning because there are no boundaries or formal protocol to observe and children are free to explore ideas.
- Once children become knowledgeable about DRR, they readily disseminate their new knowledge to their parents, thereby reinforcing their understanding. Extra-curricular activities and IEC materials further cement DRR knowledge, especially if they are entertaining.
- The child-to-parent approach has been effective in undermining the cultural tendencies for parents and children not to share DRR knowledge.





Local-level disaster management committees

Effective vehicles for reducing disaster risks

Local-level disaster management committees

Effective vehicles for reducing disaster risks

Background

Unless there is an effective institutional mechanism for responding immediately to them, disasters have a devastating impact on many sectors of development, including agriculture, health, education and infrastructure. In the absence of such a mechanism, it is common for a community to witness social and economic setbacks. The fact that the government sees all groups of affected people as the same—simply “the affected”—has hampered effective DRR because each affected group is vulnerable in a different way, has different needs, and has different capacities for reducing risks. A community in all its heterogeneity can respond effectively only if local-level DMCs²² are

²² The formation of disaster management committees (DMC) at the school and the community level and activating existing child clubs gave support to and created momentum for project work.

formed and strengthened. Experience demonstrates that socially inclusive DMCs are effective vehicles for reducing disaster risks because they can offer different supports to different groups is needed in a specific local context.

Prior situation

Raising awareness about risk and its underlying causes is crucial in reducing vulnerability. In the past already privileged groups learned more than other groups, leaving the already marginalised still farther behind. It used to be that it was mainly men who took an active part in community discussions, meetings and other gatherings and that those who were most vocal were mainly from advantaged groups. Nepali women as a whole and individuals of both sexes from and socially-marginalised groups, including people with disabilities were rarely given a chance to have their say. Ironically it is these very people who have little access to education resources and livelihood opportunities and bear heavy economic and social burden; and it is they who are disproportionately vulnerable to the impacts of disasters. Given this fact, it should have been they who were the central focus of DRR discussions. But they were not. Until recently, the culture of dominance by elites

Raising awareness about risk and its underlying causes is crucial in reducing vulnerability.

meant that women, the poor, minority groups, and people with disabilities were grossly under-represented in decision-making about DRR initiatives. In addition, DRR efforts did not occur at the local level; decisions were made higher up and were imposed on local communities, ignoring the fact that these decisions might be inappropriate for that a local context. The misconception that dealing with disaster is the duty of the government and that locals can do nothing on their own to manage disaster prevailed. Because there were no

organised DMCs, discussions about disaster risks and ways to cope with them were limited.

Process

Project facilitated PVAs and interactions at the school and community level revealed that there were many gaps in the DRR knowledge and practices of local people. One of those gaps was the lack of an institution responsible for disaster-related activities. To address this gap, socially inclusive DMCs were formed at the school and community levels. DMC members learned many life-saving skills through trainings in first aid, search and rescue, fire fighting and other issues, all in an effort to build their capacities to respond to disaster. Emphasis was given to the institutional development of these DMCs, grooming them to assume the role of 'risk minimisers'. Under the leadership of DMCs, communities drafted community-based disaster preparedness and contingency plans in order to promote for sustainable DRR at the local level.

Changes observed

Once local-level DMCs had been established and strengthened, it was easy for various disaster actors to realise their respective roles and responsibilities. The fact that DMCs were socially inclusive helped to ensure the equal participation of men, women and marginalised groups

Box 17

DMCs are capable of generating resources for DRR

After a gender- and socially inclusive DMC was introduced into our community, we established an emergency fund. Every student from our school and every family make a monthly contribution of Rs.1 and Rs. 10 respectively. The central idea was not to burden anybody but to create a culture of saving. The idea is very effective and everyone contributes very happily to the fund. We have no great fear of disaster as we are equipped with skills as well as resources. Together with social unity and harmony among all people, financial resources play a very important role during a disaster

-One of the teachers of Banshagopal Secondary School, Makwanpur District

in reducing the risks of hazards, eliminating social vulnerability and building disaster-resilient communities. Women, who were once largely absent from development endeavours, are now in the forefront and are well represented in decision-making process.

The establishment of DMCs has made it easier to provide services to those groups of affected people who were previously left unaided during disasters. DMCs also make communities more responsive because with the transparency of their actions they establish upstream and downstream linkages and, increase the willingness of every family to participate in DRR. Because DMCs have made local-level resource mobilisation possible, communities can now respond to disaster risks immediately. DMCs mobilise local resources and create awareness about people's ability to act on their own, thereby empowering them. Since it is almost impossible to respond effectively without funds, all the DMCs have established emergency funds which can be drawn on in times of need to provide immediate relief before external support arrives.

Not only have DMCs promoted local-level DRR, but they have also empowered communities. Getting involved with a DMC helps people overcome their shyness and lack of confidence. Communities with DMCs have a positive self-image and are able to project that image publicly. For example, under the leadership of its DMC, Bageshwori VDC, Banke, constructed a safe shelter which it rents out to others to

Box 18

Emergency funds provide a ray of hope during disasters

We are quite happy that we established an emergency fund in our VDC. The DMC has helped us work together, and by working in a group, we have increased our strength. With the plan and programmes for DRR the DMC made, it was easy to convince the VDC as well as local- and district-level stakeholders to contribute resources. What we realised in the end is that no one will come to assist us immediately after a disaster. We, the local people, should deal with the problems we face by mobilising local resources, both human and financial. When DMCs are strong, half the problems related to disasters are over.

Mr. Danda Bahadur Bohara, Matehiya, Banke District

conduct meetings and other programmes. The income is deposited in the community's emergency fund.

DMCs provide good coordination, whether of resources or ideas, and therefore maximises a community's ability to respond to disasters and to reduce disaster risks. They coordinate among governmental agencies, NGOs, SMCs, community leaders and PTAs to insure that DRR activities are collective efforts. They are also able to secure and mobilise external support easily. For example, the DMC in Matehiya, Banke, working in coordination with the Red Cross, Matehiya VDC, Banke DDC, the District Disaster Relief Committee, and BEE Group, was able to raise Rs. 260,000 for 25 fire-affected families. This DMC is also linked with the district-level Network for Disaster Affected People. DMCs have also served as a platform to promote interactions and discussions among students, teachers and guardians about new DRR issues as they arise and to share the good practices adopted by communities other than the six project communities with a view towards replicating them. DMCs also prepare contingency plans for disaster preparedness, and their knowledge about resource generation is strong.



Important lessons learned

- Because they are socially inclusive, DMCs ensure that all local-level stakeholders will be represented in all DRR endeavours. Because DMCs promote accountability among stakeholders, they increase the effectiveness of DRR efforts.
- Since the plans and programmes of DMCs are transparent, they find it easy to generate resources both internally and externally. Even small contributions can help communities respond to disasters immediately after they occur. DMCs should be further equipped with the skills and knowledge they need to mobilise resources for DRR.
- DMCs allow communities to hear about the issues and concerns of all disaster stakeholders, including those of the the most vulnerable groups. As a result, DMCs are able to advocate and lobby in favour of the disaster affected, particularly the most vulnerable among them. They also ensure that decision-making is based on the will of all stakeholders and promote a culture of harmony and unity which fosters the collective and comprehensive handling of disaster risks.



Inter-project coordination

A catalyst for cross-learning and cost effectiveness



Inter-project coordination

A catalyst for cross-learning and cost effectiveness

Background

Under the aegis of AAN, two DRR projects were recently implemented in Nepal: the DfID-funded Disaster Risk Reduction through Schools Project (DRRSP) and the DIPECHO²³-funded Surakshit Samudaya: Building Safer Communities through Disaster Management Project (BSCDMP). With the overall goal of reducing people's vulnerability to disasters by contributing to the HFA, the DRRSP was launched in April 2006 and ran for three years in four districts--Banke, Makwanpur, Rasuwa and Kathmandu. Its main objectives were to make schools in high disaster risk areas safer, to enable them to act as a locus for DRR activities and to engage the education sector in promoting the HFA. It took a school-centric approach to DRR, disseminating DRR knowledge

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23 DIPECHO is European Union aid channelled through its Humanitarian Aid department.

through child-to-child and child-to-parent approaches. One of its key activities was supporting the mobilisation of SMCs and PTAs and strengthening the capacity of DMCs to carry out small-scale mitigation works²⁴ such as retrofitting schools with earthquake-resistant technology and taking other steps to make schools safer. It aimed to involve education coalitions in linking DRR activities in individual schools to national processes for the implementation of the HFA's third priority action, "to use knowledge, innovation and education to build a culture of safety and resilience at all levels."

Beginning in November 2007, AAN began to implement the BSCDMP in five disaster-prone districts—Udayapur, Sarlahi, Sunsari, Makwanpur and Rupandehi—with the aim of building safer communities through disaster management. Its main objective was to enable communities to engage in effective disaster management through awareness-building, empowerment exercises and enhancement of the capacities of accountable stakeholders. The project used a community-centric approach to community empowerment, focusing on youth and social mobilisation. The ultimate goal of the project was to minimise risks and increase community resilience through community empowerment. By mobilising DMCs, the project endeavoured to implement the HFA's fifth priority action, "to strengthen disaster preparedness for effective response."

24 To ensure that access to class is not interrupted by natural disaster, structural works were carried out. In Bageshwori, Banke, for example a bridge over the Buriya Nala made it easier for more than 70 students from Bakashpur and Gothapur VDCs to attend school. Similarly, constructing a culvert at Surke Nala has facilitated the mobility of students and community members of Parseni and Samshegunj VDCs and a bridge over Kiran Nala has benefited 100-150 students coming from Bagtol VDC. Obviously, members of the general community also benefit from the new bridges. Laying hume pipe to drain an area between Samshegunj and Bageshwori VDC has also improved mobility. A culvert was constructed in Murge Nala at the cost of NRs 1.3 million. The project had to provide just Rs. 250,000. In Matehiya, however, mobility remains a problem: Dundra Nala of Gangapur still blocks 55% of students coming from Phattepur and Gangapur VDCs and it has not been possible to build even temporary crossings because of its width.

Process

In order to promote resource sharing and synergy, the majority of the trainings were organised jointly by both the BSCDMP and the DRRSP. Project managers and other staff members visited each other's projects in order to scale up successful DRR initiatives and to eliminate failed ones. Inter-project visits made them aware of exactly what was going on in terms of DRR in different communities. District-, regional- and national-level workshops were also organised jointly to share learning and grow from each other's experiences. On 8 August, 2008, a joint workshop was conducted by the BSCDMP and the DRRSP for a wide audience, including senior government officials, donors, and representatives of the UN, international NGOs, humanitarian networks and local NGOs. The aim was to share both school-centric and community-centric experiences (i.e. the DRRSP and the BSCDMP approaches) with DRR, to analyse key learning and outcomes, and to concede how to incorporate such learning and experiences into future DRR strategies and initiatives.

Box 19

Good coordination overcomes resource duplication and increases cost effectiveness

Several times and in several districts we noted examples of programme duplication and resource misuse but this is not a problem with this project. The implementation of a project is meaningful only if it is redesigned based on the local context and local needs. We are happy that the projects implemented by AAN are highly innovative and sensitive to local contexts and so cost effective that they can be run even with modest budget. The modality of the school project is very effective for replication in new areas. The most important part is that the projects contribute to policy advocacy and also to the HFA.

Pratap Kumar Pathak, Joint Secretary, Ministry of Home Affairs

Changes observed

Inter-project coordination had many benefits for local-level DRR. By sharing the school- and community-centric approaches, it was easier to learn innovative ideas for risk reduction. From the BSCDMP, the DRRSP learned ideas like the usefulness of forming DMCs and using REFLECT,²⁵ whereas it introduced to the BSCDMP the concept of climate change adaptation. The BSCDMP applied the school safety net approach of the DRRSP through drills, simulations and rehearsals in its project communities. For its part, the DRRSP applied the BSCDMP's practice of coordinating with local, district and national stakeholders for DRR. The result of these exchanges was that both schools and communities increased their level of safety in the face of disaster.

It was through the joint efforts of both projects in sensitising local-district- and national- level stakeholders that it was possible to mainstream DRR education in the school curriculum was made possible. Textbooks were developed and teacher training conducted jointly.

The BSCDMP's ideas about making communities safer were integrated with the safer school programme in that, wherever possible, shelters were constructed within or very close to the premises of schools so they would serve both students and the larger community. The notion of building community resilience by developing a school safety net has benefited both students and parents. The fact that the safe shelter of Buddhanagar Butwal is in close proximity to



25 REFLECT (Regenerated Freirean Literacy through Empowering Community Techniques) is an approach to literacy and social change which fuses the political philosophy of Paulo Freire with the methodologies of participatory rural appraisal. REFLECT centers are located in public places, shelters or schools where the members of DMCs and task forces as well as other men and women can easily access them.

the school enables it to serve students well, especially when it is needed, during the monsoon. School retrofitting in Dharan Municipality is another example of strengthening the school safety net.

The practice of exchanging human resources for training and other forms of capacity-building initiatives helped staff in knowledge management. Conducting joint trainings in participatory vulnerability analysis, search and rescue, the HFA and fire fighting was a cost-effective approach. The sharing of learning and failures helped minimise the duplication of efforts and the chances of key project approaches failing. The implementation of previously tested approaches saved time, energy and resources and reduced both the risks of and the need to repeatedly pilot innovative approaches. The BSCDMP's trainings which worked well were replicated and scaled up by the DRRSP and vice versa. For example, the BSCDMP's the light search and rescue trainings were applied in DRRSP areas.

IEC materials, which are key to raising awareness about DRR, were also jointly designed and published and used in both project areas. Also, the fact that the two projects acted together made it easier for them to pursue policy advocacy, lobbying and campaigning. Together they have made a significant contribution to Nepal's commitment to implementing the HFA.

Box 20

Co-funding could be generated through meaningful coordination

Coordination and linkages among relevant stakeholders are needed in order to secure co-funding for DRR initiatives. Coordination also allows for the sharing of ideas and resources and makes all stakeholders responsive and accountable to each other. If coordination is ensured from day one, many activities can be implemented even if resources are limited. Most important is how strong the programmes are.

*Mr. Kanaiya Lal Godiya (Village Health Worker),
Banke District*

Important lessons learned

- Good coordination is important in order to achieve synergy in resource and idea sharing.
- The problem of program duplication, resource misuse and confusion among stakeholders can be overcome through meaningful coordination and linkages between and among projects.
- National-level joint workshops are effective for sharing and learning as well as for policy advocacy and lobbying.
- The implementation of previously tested approaches saves time, energy and resources and reduces the number of failures.



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