

"Seismic safety : Time to act is now"

ICJ: You have been recently in Mumbai to attend the International Workshop on "Professional issues for earthquake safety of built environment" organised by World Seismic Safety Initiative (WSSI) and Ambuja Cement. What in your opinion is the broad outcome of this Workshop?

HS.: You may have already received from Mr Cyrus Dordi the outcome of this workshop and the next steps (These are included on pp. 761-762 in the issue - *Editor*). Let me elaborate further on that. WSSI, since its founding, has been a catalyst of actions that would

mitigate the effects of future earthquakes. In our years of analysis regarding Indian scene, we had come to a conclusion (in collaboration with our Indian academic, research, and professional colleagues) that India has the technical and scientific know how regarding earthquake risk management but the country does not possess a robust organisational infrastructure to implement the knowledge base. It became apparent over the years that existence of good codes, good professionals, good contractors, and good architects and engineers was no guarantee for good construction and safe housing. What was lacking was a "road map" of how con-

sumers can be protected by requiring all participating professionals in the built environment accountable for their professional services to the consumers.

WSSI felt that by being a catalyst and bringing all professionals from across the nation into one location and discussing the need of the day, the country could start moving in the direction of better professional accountability and hence better consumer offerings. Towards this end, the Mumbai workshop made a giant step. After discussing for two days the problems any organisation would face in developing such an infrastructure, it was remarkable that all the participants enthusias-



Prof. Haresh Shah has been a pioneer in the fields of risk analysis, earthquake engineering, and probabilistic methods for over 35 years. A graduate from Pune university and doctorate from Stanford University, Prof Shah has served the latter, in many capacities including that of the chairman of the department of civil engineering and founding director of the John A. Blume Earthquake Engineering Centre. He is presently Obayashi Professor of Engineering, Emeritus, Stanford University, USA.

Prof. Haresh Shah

Prof Shah is the founder and director of Risk Management Solutions (RMS) Inc. With more than 250 employees and eleven offices around the world, RMS, Inc. is a leading software company that specialises in assisting insurance and reinsurance companies as well as banking and other financial institutions. He is also the chairman of the Board, World Seismic Safety Initiative (WSSI). A not-for-profit professional organisation, WSSI provides assistance to developing and developed countries towards making their urban and rural communities safe from future earthquakes. They act as catalysts to increase the awareness of governments, NGOs, and general

populations about earthquakes and earthquake risk management.

Prof Shah has received many awards, including the most recent John S. Bickley Gold Medal for Excellence Award from the International Insurance Society for his sustained and outstanding contributions to the insurance industry.

Prof Shah has authored or co-authored more than 250 technical papers and reports. He has been a consultant to private organizations and to local, state, and national government agencies. He has worked with UNESCO and several countries around the world to develop building codes and earthquake design criteria.

tically agreed to create a Blue Ribbon Group to develop a position paper and a road map in achieving the goals of professional accountability to consumers. Such a position paper will be drafted by the elected Blue Ribbon Group (elected by all the participants of the Mumbai workshop). This position paper will be ready for review and comments by all the participants on June 30, 2003. WSSI, in collaboration with Ambuja Cement, is planning to once again convene a similar workshop in late 2003 to finalise the Blue Ribbon Group's recommendations and start the process of implementing those recommendations.

ICJ: Could you highlight the broad objectives of WSSI and major activities of your organisation in recent years? Can you also briefly highlight the WSSI's initiatives in developing countries?

HS: WSSI is an undertaking of the International Association of Earthquake Engineering (IAEE). It was established a decade ago during the International Decade for Natural Disaster Reduction (IDNDR). Please note that our current mission is to:

- To raise awareness
- To be catalyst for action
- To assist in creating network
- To lobby to governments for support of local and international programmes
- To create alliances for synergistic efforts. These missions are pursued through high level meetings, through assistance in acquiring resources to national programmes in developing countries, and through organising workshops such as the one we had in Mumbai, and through organising specialised courses.

In future, WSSI plans to focus its attention on:

- Leadership development — people assets,
- Capacity development — physical assets, and
- Awareness development.

ICJ: You have said that the one of the current mission of WSSI is to raise awareness and assist in creating network. How far have you been successful in this area with regard to India in particular?

HS: WSSI has been quite active in India since mid 90s. They had organised a course for non-engineered structures in collaboration with

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prominent academics from India as early as 1994. Since then there have been many other programmes organised by WSSI in India. WSSI has excellent network of professionals, researchers, academics, and government officials in India. Many WSSI Board members have ongoing communications with these group of people. It is in consultation with them that the Mumbai workshop theme and content were developed. Prof Sudhir Jain of IIT Kanpur is a member of

We must change the culture of risk acceptance. Consumers must demand safer housing

the Board of Directors of WSSI. WSSI had sent a team of multi-disciplinary experts to Gujarat

soon after the Bhuj earthquake. Results of their observations were published by WSSI and widely distributed in India as well as around the world (in hard and digital versions). However, the effort of WSSI for the theme of the Mumbai workshop was the most ambitious to date and will require a long term presence of WSSI as a catalyst in India. I think that WSSI has also been successful in identifying the root cause of problems regarding the built environment in India and has initiated a national effort to address those problems.

ICJ: The mega cities of developing countries are at greater risk as far as seismic safety is concerned; what should we do immediately to be prepared for the worst?

HS: It is true that the greatest challenge facing the earthquake community is the increasing risk to mega cities of the world. With the rapid urbanisation of the developing world and the lack of resources to improve the new and existing stock of built environment for better earthquake resistance, we are facing a time bomb. The race between the next mega city/urban earthquake and what we can do to mitigate the effects of that earthquake is on. The effort will have to be multi-disciplinary. It is not only a scientific or engineering problem. It is a social, economic, political and cultural problem.

First, we must raise the awareness of the general public. We must start with children at the primary and secondary level to inform them of the potential risks of earthquakes. Through printed media as well as radio and television, we must inform the public about the earthquake risk under which they are living. We have to educate them about the relative risk of earthquake of their city compared to many other major cities of their nation and the world.

Second, we must change the culture of risk acceptance. Consum-

ers must demand safer housing and the society must strive towards providing all its citizens with safer housing.

These are complex issues and require a long term, sustained efforts on the part of individuals, NGOs, government, and professionals. There are no quick solutions and no quick fixes. All solutions require a commitments from all the stakeholders.

One thing WSSI has learned over the years while working in many countries of the world is that its efforts must be sustained over a relatively long period of time until the local leadership and local interests take over the challenge of sustaining the interest of the society in general and political leadership in particular. WSSI intends to work with our col-

leagues in India over the next few years until our colleagues tell us that WSSI is not needed as a catalyst anymore.

There are already programmes funded by the Office of Foreign Disaster Assistance of the Government of USA to GeoHazards International (GHI) to assess the relative risk of twenty cities of India. Dr Brian Tucker, who is the Presi-

WSSI's efforts must be sustained over a relatively long period of time until the local leadership and local interests take over

dent of GHI is also on the Board of Directors of WSSI. WSSI intends to reconvene the Mumbai

workshop once again in late 2003 to take stock in the progress made by the Blue Ribbon Group, which was formed as a result of the Mumbai workshop. WSSI feels that problem of urban risk is real and immediate and the time to act is now.

***ICJ:* How do we sustain the good beginnings that have been initiated in Mumbai?**

HS: I wish to take this opportunity to state how happy and fortunate we are to collaborate on Mumbai workshop and future follow-ups of that workshop with Ambuja Cement. They have shown outstanding commitment to quality, and to the concept that through education, training, and awareness raising, we all can make a difference.

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