The World Development Federation

Virtual
Global Super Projects Conference
November 2001

Complex Technology of Earthquake and Flood Victims' Minimization (TVM)

By

Igor V. Bestuzhev-Lada
President
Russian Futures Studies Academy
Moscow, Russia

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Our suggestion is extend the successful existing as well as newly developed technologies of victims' minimization during earthquake, flood or other catastrophic events trough a regional or even a global institutional system. The implementation of such system could give access to such technologies to the countries which are exposed to a high probability of such events. The earlier implementation of several preventive measures could lover the casualties and possible consequences of such events.

Dealing with the earthquakes we know: the more billions of people lives on earth and the more they live in the high stores agglomerations – the higher are the number of victims and the scale of losses in catastrophic events. At the same time there exist several successful technological solutions which save lives and minimize the consequences:

a) Cell modules in the housing sector with built in furniture often save lives even in strong earthquakes (this practice works well in New Zealand and other earthquake exposed regions).
b) The automatic gas, water and power supply systems shout off censors reduce fires and other damages during the earthquakes.
c) The automatic brake systems which would stop all vehicles in railroad and highways at the first shocks of an earthquake could reduce the number of accidents.

This list could be continued further with other useful technological practices reducing the number of victims and economic consequences in the event of an earthquake.

The above mentioned techniques also can help in the event of floods but the number of possible victims and thus importance of the problem can be much higher. However, fighting with floods the urban science knows several successful techniques of victim minimization:

a) The new construction design should implement the worst possible assumptions about potential water rising level at high waters, storm rains, thawing of snow on mountains etc.
b) To extend the traditions of pile constructions when ground floors are intended not for living and any water level allows tenants to stay out on the second and other floors.
c) In districts, subject to flooding, houses should be equipped with easy (for example inflatable) boats which would make it possible to reach a safe place.
d) In districts, subject to flooding, the system of dams and channels should be created or reconstructed for regulation of any water streams.

This list can be continued.

As a matter of fact, for each district subject to earthquakes or flooding, a special set of actions should be suggested, this is designed to withstand any acts of nature. Clearly, that it cannot be created in just a year or two. The reshaping of town-planning in a local or even regional scale is required on a long-term prospect of two-three decades.

Such a program can not be realized by any single city, province or even a country. Therefore we propose a creation of a powerful enough transnational corporation, which would be fully competitive in developed countries and be subsidized in the developing countries in the form of financial aid to the countries, suffering from catastrophic events (with the only difference that this help is given before such events happen and not after).

The structure of such corporation would implement three branches or levels.
First, a network of research centers to develop the concept of essentially new urban planning which would exclude significant victims and damage at earthquakes and flooding. (This would provide thousand jobs for scientists).
Second, a network of design and construction institutes to develop the set of improvement measures in the regions subject to flooding and earthquakes on a long-term prospect of two-three decades (dozens, if not a hundred thousand, office workers).
Third, a system of the civil engineering firms realizing the program of urban planning improvement projects (millions of jobs on a global scale).

In is important to create the financial structures, which would attract the investments with a guarantee of high returns as well as the political structures, capable to work in contact both with the governments of the interested countries and with the international organizations.

This project can also be viewed in a wider framework of the following type: the global planet surface optimization to accommodate ten billion people on Earth by the year 2050.