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# The Insurance Industry and IDNDR: Common Interests and Tasks

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Insurance is financial preparedness against loss. It makes the effects of the occurrence of a loss bearable for the individual policy holder, and does so at a price which as a rule is favourable because the risk of loss is distributed among a great many parties and the profit-and-loss curve is thus levelled out. Natural disasters present a serious menace - up to the present, indeed, the most dangerous menace - to that safety net, because a large proportion of the insured in a country, perhaps even in several contiguous countries, are overtaken by a disaster at one and the same time and the profit-levelling process is threatened with collapse. Here the international spreading of risks through reinsurance is of help. Their disaster potential would make many natural perils uninsurable on a purely national basis.

This makes it seem all the more important to counter the ominous trend towards ever more frequent and ever greater disaster losses by all the means available. The insurance industry has always preached loss prevention, obviously in its own interest, because in the long run these risks will remain insurable only if the trend is substantially reduced or reversed.

The goals of IDNDR are thus of service to the insurance industry in a variety of ways, and the industry should therefore interest itself in this programme and take an active part in it. Inasmuch as this, more than any other industry, has since its inception collected its experiences - including many painful ones - in this area, it will be able to support IDNDR with a wide range of local, national and worldwide know-how. Not least important: the right structure of insurance cover, and in particular appropriate sharing in the risk by the insured, can motivate him more strongly than many other measures in favour of loss prevention. Cooperation between IDNDR and the insurance industry opens up many possibilities and opportunities, which are explored in more detail below.

## What natural disasters mean for the insurance industry

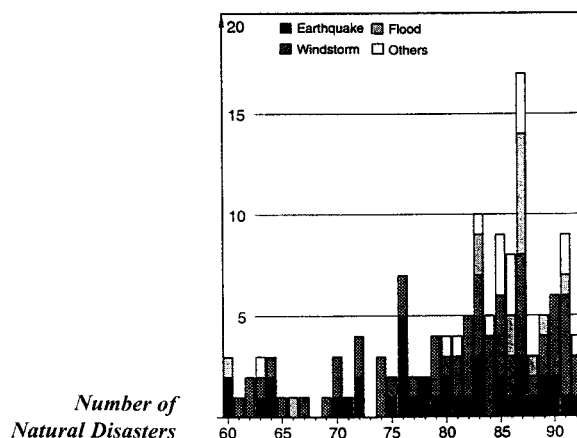
Losses due to natural perils are covered by a wide range of insurance policies, especially in the areas of fire, housing, household and building insurance but also in those of motor, hull, marine, aviation, sickness and life insurance. With isolated exceptions, these covers are not restricted to natural perils but, at the wish of the insured or even as a compulsory requirement, are appended to a principal cover, such as fire. In this way, as a rule, a broader spread and hence a levelled-out profit-and-loss curve are achieved.

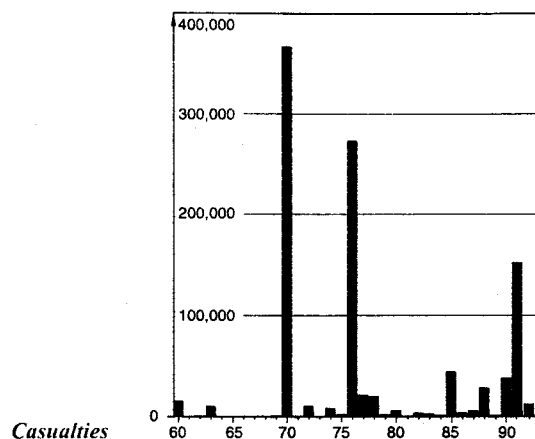
The increase in loss loads from natural disasters over the last three decades, for which reliable data are available, can be clearly conveyed in these terms: if the amounts of losses incurred over the last ten years are compared with those of the 1960s, the economic losses from major natural disasters, discounting inflation, have increased by a factor of about 5 and insured losses by a factor of 12 (see graphs).

The general drastic rise in natural disaster losses is due to a number of factors, and above all the growth of population and of assets and their concentration in large conurbations, in heavily exposed regions and, especially, along the coasts. In addition the effects of insidious climatic and environmental changes are making themselves increasingly felt, prevalently in the greater frequency of extreme conditions, especially as regards storms and precipitation.

The disproportionate increase in insured losses is the result of the growing density of insurance, especially in heavily exposed regions, and to steady expansion in the extent of the protection provided by additional natural-peril covers, for example in the area of business interruption insurance.

For the insurance industry it is primarily a matter of securing the right price for the risks underwritten. When the risk situation is worsening, it can no longer be correct to calculate premium requirements solely on the basis of the loss experience of the past, as is still done in most markets today. Instead, allowance for the worsening trend must be made far in advance through appropriate increments for change and fluctuation.





Even if optimum and exhaustive use is made of its financial resources, the insurance industry can make available only a limited capacity which obviously has not grown at the same rate as the loss potentials underwritten in recent decades. It is consequently more than ever important today to estimate these loss potentials correctly and to tailor the precautionary measures to fit them. For this purpose, the "accumulation control" technique has been developed to provide primary insurers and reinsurers with a conspectus of the existing liability situation, divided into appropriate geographical zones and categories of liability. With the aid of this information, the loss loads from chosen disaster scenarios can be calculated at will; the geo-scientists and engineers are left with the task of furnishing the correct intensity distribution of the assumed extreme occurrences and the correct susceptibility to loss of the exposed liabilities.

### The insurance industry's contribution to disaster preparedness

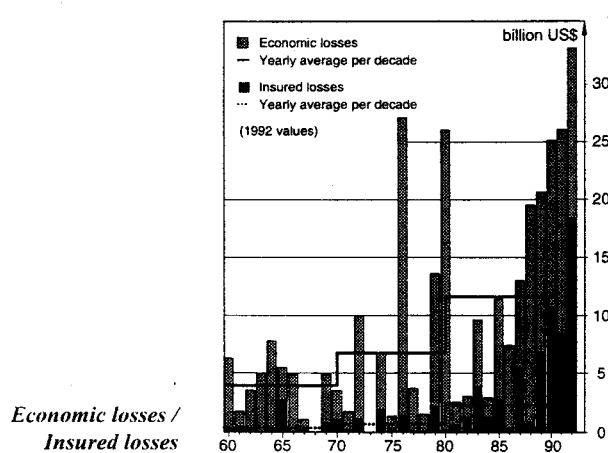
As already noted, insurance is in itself a form of disaster preparedness; it represents an important if not decisive prerequisite for many economic activities. Without insurance cover, engineering projects in heavily exposed regions (eg. off-shore installations in the North Sea, or nuclear power stations in earthquake zones) would be a sheer gamble with a high risk of failure that no business enterprise could entertain. Consequently the development and application of modern technologies and the economic development of regions where the danger level is high or unknown have always been accompanied and promoted by the insurance industry. Often enough these ventures have ended, and are still ending today, with adverse results and sometimes in total loss. This makes it all the more important for the insurer to assess the risk situation as realistically as possible and to bring all the available know-how to bear on the process. In so doing, he very often finds himself at the forefront of scientific and technological development and must often break new ground in the appraisal or reduction of risk.

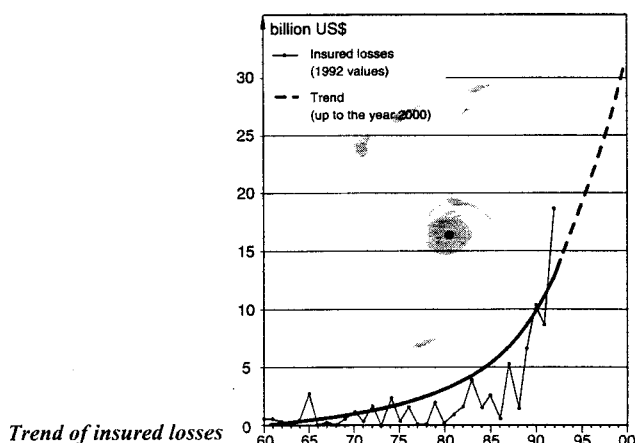
In the area of natural perils in particular, the insurance industry has at its disposal comprehensive worldwide loss

experience which it uses not only in calculating premiums commensurate with the risk and grading danger areas into what are termed rating zones, but also in tracing relationships between event intensity and loss intensity and estimating loss potentials from realistic disaster scenarios.

Up to now, after major disaster events, loss settlement by the insurers has almost always been outstandingly good, particularly in comparison with the performance of state aid programmes, which is usually over-bureaucratic. Several factors contribute to this: the continuous confrontation of the insurers with loss claims in the most varied branches demands an adequate, experienced and dynamic staff and efficient assignment planning. The insurers' efforts to settle claims for damages as fast as possible are based on two lessons of experience: "The quicker, the cheaper" and "Good loss settlement is the best advertising". Psychologically, too, it makes an appreciable difference to the injured party whether he can stand on a legal claim under his insurance contract or has to go cap in hand to some authority and thus feel like a recipient of alms. Furthermore, quick provision of payments on account by the insurers helps the disaster victims to cope more effectively with the mental stresses left by the disaster, since they are not condemned to idleness and apathy but can take the business of repair and reconstruction into their own hands.

Insurance protection carries the inherent hazard that the insured may hand responsibility for the risk over to the insurer, whereupon he will dismiss the risk from his mind and consequently no longer be ready for loss prevention measures. The insurer must counteract this mode of thought and behaviour, and he can best do so by applying financial incentives. If he offloads part of the loss onto the insured by means of a substantial deductible or other form of "co-insurance", but at the same time rewards him with an equally substantial premium rebate, he can very effectively motivate the policy holder in favour of loss prevention. Furthermore the number of loss cases eligible for settlement in natural disasters is drastically reduced by relatively modest deductibles, for such disasters are always characterized by a large, and sometimes an enormous, number of minor losses. This again has a





favourable effect on the efficiency of loss settlement.

What is more, the insurance industry is known for the extensive information materials, in the form of leaflets, brochures, films and television spots, with which it alerts the public to risks and draws attention to effective possible precautions. In the past, such information campaigns have concentrated on fire, accident and burglary prevention; today's efforts are switching more and more to the area of natural perils, in which there are many possibilities for loss prevention which hitherto have scarcely been tapped.

### Possible fields of cooperation between IDNDR and the insurance industry

As already pointed out, the insurance industry must seize every opportunity to check or even reverse the ominous rising trend in the loss loads from natural disasters. It is true that individual efforts have already made some progress in this respect, but decisive results can be expected only from a worldwide programme such as IDNDR, which can make use of States' capacity for intervention and guidance. In the insurance industry, therefore, IDNDR has a natural partner and ally: one, moreover, which has at its disposal a wealth of worldwide experience in this area, extending over many years, and can establish far-reaching international connections. In previous chapters and in the goals of IDNDR, many possible fields of cooperation are in evidence; the list which follows is illustrative and by no means exhaustive:

- the mapping of danger zones
- the assessment of loss potential for disaster scenarios
- recommendations for regulations or restrictions on land use
- recommendations for standard building regulations
- the promotion and use of prediction and warning services
- the listing of competent institutions and experts
- information and motivation of the public
- proposals for standardized recording and analysis of losses

### Conclusion

The fundamental significance of natural disasters to the insurance industry, which has again increased dramatically in recent decades, makes all activities in the context of IDNDR

a matter of keen interest. At the same time the insurance industry, with its many years of worldwide loss experience, can draw upon extensive know-how which can be of great service in the development and implementation of the IDNDR programme. Furthermore the wording of insurance conditions strongly influences the behaviour of the population as regards preparedness; it should consequently be used to contribute to motivation efforts. In short, there is a sizeable range of opportunities for joint action by IDNDR and the insurance industry which, if the available capacities are utilized to the full, can do a great deal to halt the ominous trend towards increasing disasters and thus ensure that the success of IDNDR endures far beyond the Decade.

### Bibliography

- Munich Reinsurance Company: "World Map of Natural Hazards", Munich 1988.
- National Committee on Property Insurance: *Expectations and Realities: The Insurance Industry and the International Decade for Natural Disaster Reduction*, Boston 1990.

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