



## **Risk perception of tsunami in the community of Arauco, Chile – a contribution of risk perception to disaster risk management at local level**

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The research was carried out in the city center of the coastal community of Arauco, Central Chile. The community of Arauco was one of the most affected communities of the tsunami in Chile, the 27th of February 2010. For the data evaluation, the affected inhabitants of the community have been surveyed via standardized questionnaires. Furthermore experts of different fields, amongst others, Disaster Risk Management (DRM), risk education, urban and regional planning, as well as geology have been consulted in form of expert interviews.

The results revealed a high risk perception part of the affected community and a weakness of DRM especially at local level, which opens a gap between the evaluation and treatment of risk by experts and risk perception of the affected community. The risk perception of the affected community, here, is predominantly determined by ecological vulnerability, expressed in direct and indirect experience of a tsunami and by institutional vulnerability, expressed among others by a weakness of DRM at local level and a mistrust in responsible institutions for DRM. Due to the institutional vulnerability and the mistrust in responsible institutions we recommend a Community Based Approach (CBA) to strengthen DRM at local level and to take advantage of the high risk perception and knowledge of the affected community. Involving the community in DRM, we assume to close the gap between risk evaluation of experts and risk perception of the inhabitants and to come up with the unique necessities and conditions at local level.

Especially in centralized countries, DRM is less effective, because at the one hand, decisions are made distant from the affected communities, so that measures often do not come up with the unique conditions and necessities at local level, and on the other hand measures often do not find acceptance by the affected community. Furthermore centralized DRM is often not effective and quick in response in case of emergency. Another obstacle for an effective DRM, often forms the general mistrust in governmental institutions. In these cases the participation of the affected communities in form of CBAs are assumed to overcome these problems.