



## From timely warning to beneficial action and vice versa

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The Task Team on Social-Economic Benefits of WG Service Delivery and Partnership of the WMO (Perrels et al 2013) notified in its report that the various types of weather service products virtually always produce benefits which are many time their costs. These findings concur with many earlier reviews (e.g. World Bank 2008; Lazo et al 2009). This also concerns warnings. Notwithstanding these favorably looking results, the biggest benefit of getting aware of the services' benefits is the potential of the systemized evaluation to enable generation of far more benefits. The point is that next to steady improvement of observation and forecasting technology, a significant part of the extra benefit potential resides in the rest of the weather services chain, i.e. all the steps from forecast via media to actual realization of benefits by an end-user.

This contribution will explain that systematic surveys and partnerships with end-users and re-users are a prerequisite for the exploitation of the non-exhausted benefit potential of weather services. Furthermore, on the basis of recent and on-going studies it will illustrate that the assessment of the effectiveness and benefit generation of warnings requires extremely careful analysis (incl. choice of methodology), with specific data needs which are quite often hard to meet. Recommendations for proper recording and collection are made.

### References:

Lazo J., Morss R., and J. Demuth (2009), 300 Billion Served – Sources, Perceptions, Uses, and Values of Weather Forecasts, *BAMS* 90 (6):785-798.

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World Bank (2008), Weather and Climate Services in Europe and Central Asia, World Bank Working Paper No. 151, Washington DC