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Monetary Risk Valuation in Alpine Regions: The value of protecting human life

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Cost-benefit-analyses (CBA) are a valuable tool to examine the efficiency of projects. Such analyses are also used for protective measures against natural hazard. Surprisingly, the most important output of protective measures – the protection of human life – is often excluded in the valuation process. This can be traced back due to the difficulty of monetary valuation but monetarization is a precondition for incorporating this social aspect in CBA, too.

Economics provides different methods how the mitigation of fatalities can be monetarily valued and get included in CBA. One possible approach is the Value of statistical life (VSL) which represents the rate at which individuals are willing to exchange income for a reduction in mortality risks.

In order to estimate the VSL a survey was conducted in the Austrian federal state of Tyrol. Among others, information about the individual willingness to pay (WTP) to reduce the risk of dying in an avalanche was collected. This data enables the calculation of the VSL whose inclusion in CBA allows a more complex consideration of decision relevant factors.

Main objectives of the study are to provide information about the individual valuation of preventing fatalities and to calculate the VSL. Additionally, as also socio demographic characteristics of respondents are now available one can examine whether differences in appreciation between particular groups (e. g. younger/older; health-ier/unhealthier persons) exist.