

	provision of data needed for the estimation of the cash flows.
Additional information	
References	Williams, J.R., et al. (2012), <i>Financial and Managerial Accounting</i> , McGraw-Hill.

24.10 Reduced/avoided damage costs

Project Name: RECONNECT (Grant Agreement no. 776866)

Author/s and affiliations: Ursula McKnight¹, Karsten Arnbjerg-Nielsen¹, Laddaporn Ruangpan², Zoran Vojinovic²

¹ Department of Environmental Engineering, Technical University of Denmark, Denmark

² IHE Delft Institute for Water Education, Delft, the Netherlands

Reduced/avoided damage costs from hydro-meteorological risk reduction		New Economic Opportunities and Green Jobs
Description and justification	Determining direct damage is commonly done using depth-damage curves, which denote the damage that would occur at specific water depths per asset or per land-use class.	
Definition	Expected annual damage	
Measurement procedure and tool	<p>In general the damage costs are calculated as expected annual damage, EAD, to account for random fluctuations in actual occurrences of hydro-meteorological events. This is why calculated hazard maps are used rather than direct observations.</p> <p>The EAD is calculated by numerical integration between based on the following equation:</p> $EAD = \frac{1}{2} \sum_{i=1}^n \left(\frac{1}{T_i} - \frac{1}{T_{i+1}} \right) (D_i + D_{i+1})$ <p>where T_i and D_i are return period and calculated damage for return period i. The required number of calculation points are discussed in e.g., Olsen et al (2015). In general the majority of the calculation points should be close to the return period where damages start to occur, since very high return periods rarely contribute substantially to the overall risk in spite of their high cost (when they occur).</p>	
Data source		

Required data	<ul style="list-style-type: none"> • Hazard maps covering the NBS site showing the hydro-meteorological hazard(s) as a function of return period before and after the NBS is introduced. Typically this will be in the form of raster of shape files in a GIS environment. • Value maps covering the NBS site showing what assets can be exposed and what cost is associated with exposure, typically as a function of e.g., inundation depth, (water) velocity, duration of exposure, etc. This data should be available in the same format as the hazard maps. • Land use map
Data collection frequency	
Synergies with other indicators	Flood hazard
Connection with SDGs	
Additional information	
References	

24.11 Social Return on Investment (SROI)

Project Name: CONNECTING Nature (Grant Agreement no. 730222)

Author/s and affiliations: Mary Lee Rhodes¹, Adina Dumitru², Stuart Connop³, Catalina Young⁴, Irina Macsinga⁴

¹ Trinity Business School, Trinity College, Dublin, Ireland

² Sustainability Specialization Campus, University of A Coruña, Spain

³ Sustainability Research Institute (SRI), University of East London, Docklands Campus, London E16 2RD, United Kingdom

⁴ West University of Timisoara, Romania

Social Return on Investment (SROI)		New Economic Opportunities and Green Jobs
Description and justification	This indicator seeks to capture the value of improvements in social well-being (in monetary terms) arising from nature-based solutions. It should be used only in cases where additional information relating to the notional monetary value of one or more social well-being indicators is needed for the purpose of funding applications, investor requirements (see	