

Indicator: Environmental awareness of students concerning blue areas

Naturvation challenges: Coastal resilience and marine protection

SDGs: 14

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Indicator description

The indicator *“environmental awareness of students concerning blue areas”* measures the effects of environmental educational activities related to water (such as field visits, pedagogical activities, scientific lectures and workshops) in students’ knowledge about nature-based solutions involving water bodies (rivers, lakes, ponds, wetlands and deltas) and biodiversity protection related to their ecosystems.

Environmental educational activities related to water such as field trips, have been shown to increase the students awareness of blue features such as rivers, wetlands and deltas and their understanding about geology and geography (1). Lake glass-bottom tours were found to increase students awareness of regulating ecosystem services (e.g. water quality) and cultural services (e.g. aesthetics, education, and sense of place) (2). As a result these students were suggested to be more likely to visit such blue spaces and are more educated about these NBS benefits to humans and wildlife (2).

This indicator is directly relevant to the challenge of “coastal resilience and marine protection” since it measures the effects of environmental education activities for students in blue areas such as delta’s, wetlands, rivers, lakes and ponds. This indicator is assessed usually through data collected from questionnaires and surveys (e.g. on the topic of the use, value, and perceptions of rivers (2), or in order to determine the state of the water education in study areas (4)) (2, 3, 4), as well as through field observations or field trips (e.g. visits to schools and creation of school activities) (1, 3). An additional method was applied in one of the studies, where students’ drawings were used as assessment tool, through a draw-and-explain protocol, which allowed students to communicate in both pictures and words (1).

Indicator scoring

The search queries were composed of three query sets related to NBS terms, indicator topic and urban context. The values given to the indicators were based on selected scientific literature (4 papers), including 4 empirical studies (1-4). The proportion of studies that showed positive benefits for an NBS were used as a base for the scoring and distributed between scores ranging from 1 to 5 according to the proportions of positive impacts. Indications of negative impacts were noted here in the score document as a proportion of studies. When data for benefits of an NBS was not present in the literature it was denoted as no values found.





Scores, environmental awareness of students concerning blue areas		
Nature-based solution	Score	Proportions of positive /negative impact (number of studies)
Parks and (semi)natural urban green areas	No score	No values found
Urban green areas connected to grey infrastructure	No score	No values found
Blue areas	5	0.5 / 0 (n = 4)
External building greens	No score	No values found
Allotments and community gardens	No score	No values found
Green areas for water management	No score	No values found

References

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