

Integrated Assessment, Definition of

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Integrated assessment (IA) is a reflective and iterative participatory process that links knowledge (science) and action (policy) regarding complex global change issues such as acidification and climate change. IA can be defined as an interdisciplinary process of combining, interpreting and communicating knowledge from diverse scientific disciplines in such a way that the whole cause–effect chain of a problem can be evaluated from a synoptic perspective with two characteristics: (i) it should have added value compared to single disciplinary assessment; and (ii) it should provide useful information to decision makers (Rotmans and Dowlatabadi, 1997).

Assessment comprises the analysis and review of information derived from research for the purpose of helping someone in a position of responsibility to evaluate possible actions, or think about a problem. Assessment means assembling, summarizing, organizing, interpreting, and possibly reconciling pieces of existing knowledge, and communicating them so that they are relevant and helpful to an intelligent but inexperienced decision-maker (Parson, 1995).

The cause effect chains that IA aims to evaluate start with socio-economic drivers, leading to economic activity and other practices, leading to emissions and other pressure on the environment, leading to environmental changes, leading to physical impacts on societies and ecosystems, leading to socioeconomic impacts, eventually returning to change the socioeconomic drivers. Therefore, IA needs to integrate insights from a multitude of disciplines to arrive at a synoptic view on the problem at hand.

See also: Integrated Assessment Models of Global Change, Volume 4.

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