



## Webbing and Chaining

### Description

Webbing-and-chaining is a tool used for scoping [social impact assessments \(SIAs\)](#) and environmental impact assessments ([EIAs](#)). Scoping should be completed before any detailed impact assessment (IA) is done. It includes initial social profiling, identification of stakeholders and interested and affected parties, initial consultation with these people, and the preliminary identification of impacts.

Scoping allows the assessment team to:

- identify important issues relating to a proposed action;
- determine the timing, depth and extent of the analysis needed, and plan the detail of the analysis;
- link bio-physical impacts to their social outcomes;
- add the results of initial consultation to the collation and interpretation of available secondary data;
- identify data gaps and needs and plan the collection of new data.

Webbing and chaining is a very useful tool for focussing the analysis onto all types of environmental impacts and their consequences (social, cultural, economic and biophysical) to ensure all important impacts and issues are taken into account regardless of their type. The method is used for impact assessment at the projects level and also the strategic level (plans or policies) that have potential for either social or bio-physical impacts. It can be used by individuals with different disciplinary backgrounds.

### How and when the tool is used

Webbing and chaining is used during the scoping phase of an IA. The resulting analysis should be revisited and amended iteratively during the SIA process to keep the SIA focussed on the relevant issues.

The process links impacts into chains of cause and effect relationships and considers the links between chains, creating the web. This process is much more analytical than a matrix of project variables and impacted population variables often used by assessment teams. An impact matrix is useful for ticking off, or even ranking, the intersecting boxes to identify impacts or issues. The webbing and chaining method, in comparison, goes into the relationships between impacts in more depth, using a "brain-storming" process with all members of the interdisciplinary team in attendance. Where appropriate this process happens in collaboration with proponents and members of the affected public.

The assessment team produces a chart or series of charts. Various potential impacts of a development are represented. The relationships between impacts are made explicit by arrows running between them, pointing either in the direction of the 'flow' (chains) of impacts - from first to second to third order impacts, etc, or to webs of impacts - where one impact links to another, setting off a new chain. All types of impacts (i.e., social, biophysical etc.) are taken into consideration. Depending on the complexity of the case, many impacts will be likely to result in a variety of higher-order impacts. On the other hand, several arrows can point to the same box, indicating that this impact can be caused through a variety of pathways. Here the potential for cumulative impacts (see [cumulative effects assessment](#)) and wider management issues should be noted.

The process of webbing and changing lends itself to monitoring and evaluation of the impact assessment process itself, providing a means to check the assessment's understanding of impacts as the impact assessment proceeds.

Understanding of impacts should also inform [monitoring](#) of those impacts once a development is under way.



### Application

There has been limited use of IA in tourism projects and concession applications, let alone integrated impact assessment that link bio-physical impacts to their social outcomes. So the use of IA in tourism development is often limited to narrow areas of interest and fails to take place in an integrated way.

Furthermore, current planning and IA practice in general is not often interdisciplinary with impact assessments often an accumulation of various technical studies. They do not reflect the work of technical specialists working in an integrated way throughout.



## IMPACT ASSESSMENT Webbing and Chaining

There is, however, increasing interest amongst IA practitioners in advancing a more integrated approach to project planning, usually with a focus on issues of sustainability. Better tools and the capability and capacity to use them will assist with design and implementation of projects, plans and policies. These tools can be applied strategically, particularly in [structure plans](#) , and also in broader conservation plans, and regional and district planning under the [Resource Management Act framework](#) .

There is little known use of the webbing and chaining tool as part of an integrated approach for planning and policy making related to NZ tourism.

### **Our evaluation**

Webbing and chaining is a very useful tool that helps to focus the analysis of all types of environmental impacts (social, biophysical, etc.) on the relevant issues, and to ensure that all important issues are taken into account regardless of their type. Training and practitioner development in use of the tool would be valuable.