



# NEW ZEALAND PILOT OF THE CORPORATE ECOSYSTEM SERVICES REVIEW: A LANDCARE RESEARCH PERSPECTIVE

*“All of the companies piloting the ESR approach had new insights they believed would benefit them in future. For some, the process informed their land acquisition and conservation choices; for others it demonstrated alternative approaches to meaningfully engage stakeholders, provided insights into supply chain management, and identified future production risks and marketing opportunities.”*

Dr Suzie Greenhalgh,  
Landcare Research

## ABOUT LANDCARE RESEARCH

Landcare Research is the Crown Research Institute responsible for driving innovation in the management of terrestrial biodiversity and land resources.

They provide national leadership in research on ecosystem services – the services nature provides to people – and how these can be used to enhance resource management decisions. This is critical as New Zealand faces increasing pressure on its natural resources. Maintaining natural capital and the flow of ecosystem services for future generations will help sustain New Zealand’s economic, environmental and social well-being.

## ABOUT THE PILOT

The Corporate Ecosystem Services Review (ESR)<sup>1</sup> provides a fast and effective scoping tool to help companies assess and manage business risks and opportunities arising from their dependence on ecosystems and the associated impacts of this. First developed by the World Resources Institute and the World Business Council for Sustainable Development in 2008, the ESR is now being used by hundreds of companies globally.

The Sustainable Business Council piloted the ESR in New Zealand in late 2013, with Landcare Research and participating companies. Landcare Research first applied the ESR in the kiwifruit industry, working with Zespri International. This pilot tested the tool with five New Zealand companies, covering the agricultural, fishing, consulting, natural products and energy sectors, and ranging from a small start-up to national and global companies.

You can find more information on the experiences of participating companies at [www.sbc.org.nz](http://www.sbc.org.nz).

## ABOUT THE COMPANIES AND SCOPE OF REVIEW

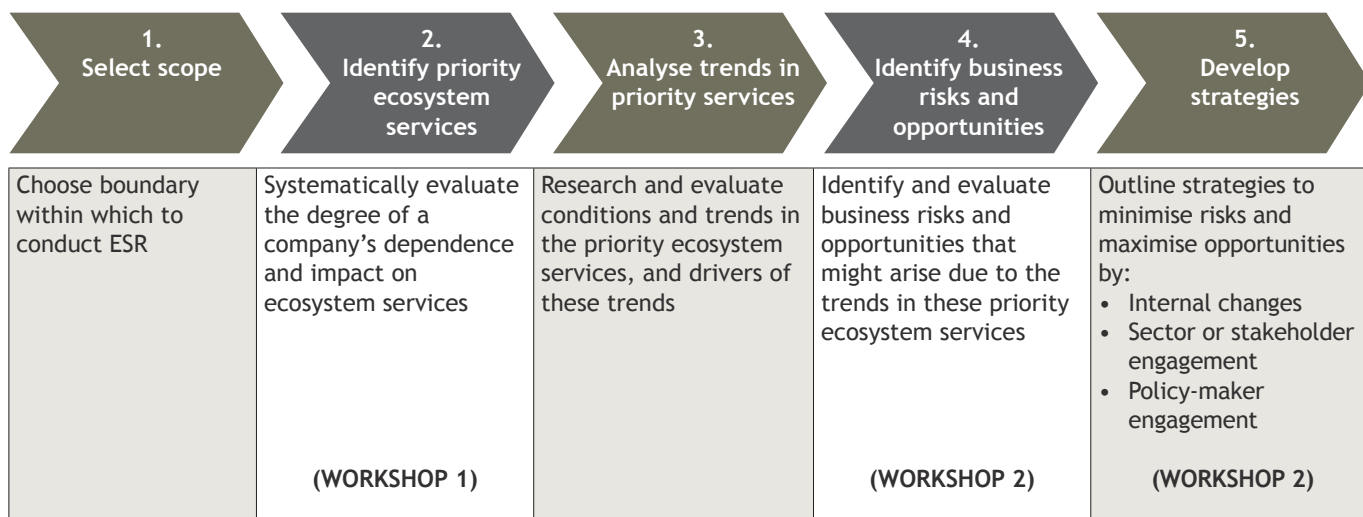
A broad range of companies were involved in the pilot programme, demonstrating how the tool could be applied and provide benefit to any business, irrespective of size or industry:

- *Aotearoa Fisheries Ltd*, a Māori owned seafood company, reviewed its production of wild Pāua in the marine environment.
- *Archeus*, a natural products company, reviewed its supply chain, conservation activities and land acquisition and management practices.
- *Contact*, a national energy company, reviewed its operating easement for hydropower activities on the Clutha River from Lake Hawea to downstream of the Roxburgh Dam.
- Fonterra, New Zealand’s largest dairy co-operative, reviewed strawberry yoghurt produced at the Fonterra Brands Takinini factory.
- URS, an engineering consultancy, reviewed the services it offers to water customers in Auckland.

## THE ESR PROCESS

Each of the pilots followed the five-step ESR process (Figure 1). This involved a series of workshops, which were used to identify priority ecosystem services, determine related risks and opportunities, and assess appropriate strategies.

Figure 1. ESR process



## SCOPE OF ASSESSMENT

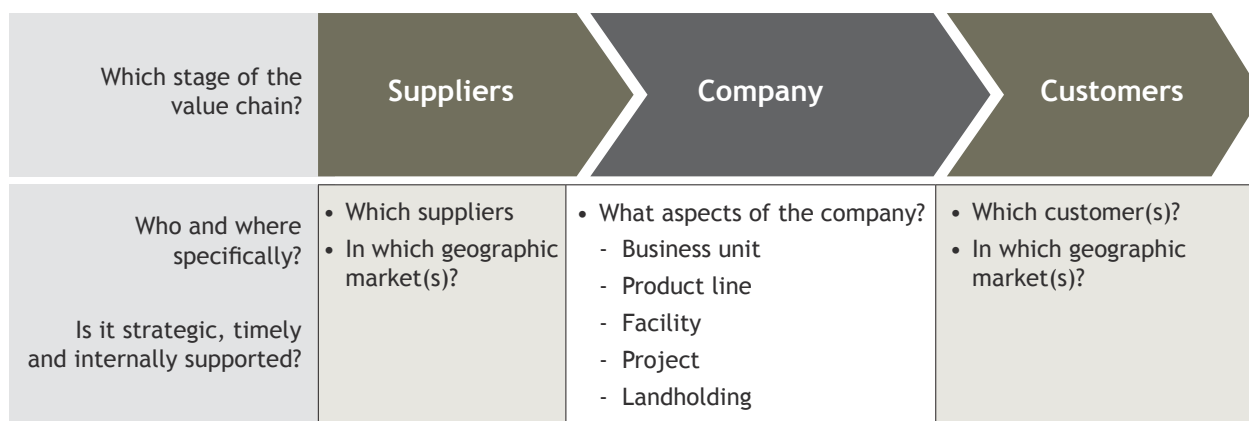
*The ESR is kept focused and manageable by selecting a scope that is strategic, timely and internally supported by the company.*

Selecting the scope (Figure 2.) is an important step as it has implications for the commitment required by each company. It affects which staff are involved and their time contribution, the level of senior management engagement and the benefits

of including external parties. The scope can be revised during the process should the initial selection prove to be too small or too big.

The pilot showed the ESR was applicable to and valuable across a range of assessment scales and aspects of company operations, and the scope varied accordingly.

Figure 2: Determining the scope of the assessment



## PRIORITY ECOSYSTEM SERVICES

The ESR enables the company to prioritise a few key ecosystem services by evaluating the degree of the company's dependence and/or impact on a range of ecosystem services.

The structured and systematic assessment of the impacts and dependencies on each ecosystem service (Figure 3.) stimulated discussions between participants in a neutral, inclusive and comprehensive manner that many had not previously experienced.

Companies who included external stakeholders noted the benefits of their involvement, as they brought different and constructive perspectives and different levels of knowledge for some ecosystem services. For example, one company's prioritisation workshop involved 10 external stakeholders including agricultural and environmental interests, community and iwi representatives, council staff as well as 11 staff from legal, corporate affairs and the local operational team. Despite the size of the workshop, the mix of external stakeholders and internal staff members provided a unique and constructive forum for the exchange of views and robust discussions around the different ecosystem services.

## TRENDS, RISKS AND OPPORTUNITIES

The ESR guides an analysis of the conditions or trends in the ecosystem services prioritised, as well as drivers of environmental change that significantly influence those trends. The ESR then helps evaluate how trends can impact the company, either positively or negatively.

The conditions and trends assessment, while varying between companies, was largely undertaken by internal staff. Even with variable levels of detail for each ecosystem service the ESR was able to facilitate robust discussions and strategies were developed without extensive research.

Cultural services were a knowledge gap across most of the assessments, and the conditions and trends analysis relied largely on the discussions from the prioritisation workshops. In cases where global climate was considered important, it was viewed as a driver for change rather than an ecosystem service. The inter-relationships between various ecosystem services (e.g. regulation of water timing and flows, erosion control and natural hazard mitigation) were also an area of discussion and sometimes led to a merging of ecosystem services for data collection purposes.

Figure 3. List of main ecosystem services used in the ESR

Provisioning Services <i>Products obtained from ecosystems</i>	Regulating Services <i>Benefits from regulation of ecosystem processes</i>	Cultural Services <i>Non-material benefits obtained from ecosystems</i>
<ul style="list-style-type: none"> <li>• Crops (2)</li> <li>• Livestock (2)</li> <li>• Capture fisheries (1)</li> <li>• Aquaculture</li> <li>• Wildfoods (1)</li> <li>• Timber &amp; other wood fibres</li> <li>• Fibres &amp; resins</li> <li>• Ornamental resources</li> <li>• Biomass fuel</li> <li>• Freshwater (3)</li> <li>• Genetic resources (1)</li> <li>• Biochemical, natural medicines &amp; pharmaceuticals (1)</li> </ul>	<ul style="list-style-type: none"> <li>• Air quality maintenance</li> <li>• Global climate regulation</li> <li>• Regional/local climate regulation (1)</li> <li>• Regulation of water timing and flows (3)</li> <li>• Erosion control (3)</li> <li>• Water purification &amp; waste treatment (2)</li> <li>• Disease mitigation</li> <li>• Maintenance of soil quality (1)</li> <li>• Pest mitigation</li> <li>• Pollination</li> <li>• Natural hazard mitigation (2)</li> </ul>	<ul style="list-style-type: none"> <li>• Recreation &amp; ecotourism (2)</li> <li>• Ethical &amp; spiritual values (4)</li> <li>• Education &amp; inspirational values (2)</li> </ul>
<p><b>Supporting Services</b> <i>Services necessary for the production of all other ecosystem services</i></p> <ul style="list-style-type: none"> <li>• Provisioning of habitat (3)</li> </ul>		

(Parenthesis indicate the number of companies that prioritised this ecosystem service)

---

## STRATEGY AND NEXT STEPS

The strategy discussions focused on internal changes, stakeholder/sector engagement and policy-maker engagement. All pilot companies combined their risks and opportunities and strategy discussions into one internally focused workshop. Additional staff from areas such as procurement, finance and marketing were also involved. This enhanced the quality and breadth of discussions, helped develop buy-in from staff and gave greater certainty of uptake for the actions and strategies that were identified.

While these workshops initially worked through each ecosystem service in a structured fashion, discussions quite quickly and naturally moved to inter-related ecosystem services. For instance, freshwater discussions typically also included discussions around water regulating and water purification services.

## INSIGHTS FROM THE FIVE ASSESSMENTS

All companies identified benefits from applying the ESR and a number of insights were gained:

- The ESR provided an excellent tool for companies to engage with external stakeholders and internally. The systematic and comprehensive nature of the process meant that external stakeholders were able to identify with one or more ecosystem services. As a result, participants felt their interests were being considered in the process.

Internally, it provided a mechanism for staff to explore issues and management areas in a different light with new opportunities being mutually recognised making company commitments easier to secure.

- New insights were revealed. For example, current ingredient procurement processes did not capture all ecosystem service-related risks and one company realised the degree to which they were dependent on the activities of other resource users. This latter example highlighted the importance of engaging in other regional and national dialogues they were previously unaware of and identified potential marketing opportunities.
- Robust discussions about ecosystem service risks and opportunities were still possible even where extensive and detailed information on conditions and trends was not available.
- While not a prerequisite, independent facilitation adds value to the ESR process by providing a neutral view point and enhanced credibility of the outcomes.

*“The ESR is an excellent scoping tool that can be easily applied to and provide insight across a range of companies. It can also be used to underpin other corporate performance management tools.”*

- Cerasela Stancu, Landcare Research

[www.landcareresearch.co.nz](http://www.landcareresearch.co.nz)

---

## ABOUT SBC ECOSYSTEM HEALTH PROGRAMME

The Sustainable Business Council (SBC) is an executive-led group of companies that catalyses the New Zealand business community to have a leading role in creating a sustainable future for business, society and the environment. Ecosystem Health is one of the priority areas in the SBC work programme, with projects that aim to help members understand their dependencies and impacts on the ecosystem and how this affects their business strategy and resource use.

[www.sbc.org.nz](http://www.sbc.org.nz)



In collaboration with:

