

September 2015

Newsletter

WORKSHOP

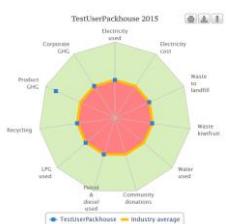
Stakeholder workshop was held on 6th of August 2015 in Wellington.

POWER ANALYSIS

Package development, application, and success stories

CONFERENCES AND PAPERS

Presentations and publications



OUR PROJECT

The New Zealand Sustainability Dashboard (NZSD) project's main aim is to build practical tools for sustainability assessment, auditing, reporting and learning. For more information on the project, please check the NZSD project website (www.nzdashboard.org.nz).

"The NZSD process, including creative stakeholder' customizations across diverse supply chains (from indigenous systems to export crop performance), places New Zealand in the driver's seat in applying sustainability impact assessment tools and quadruple bottom-line reporting. Well done kiwis!" - Nadia Scialabba, FAO at the NZSD Stakeholder Workshop, 6 August 2015.

MAIN INDUSTRY UPDATE

Wine: A large number of National and Individual reports for benchmarking to continuously improve performance around Energy, Water and Agri-chemicals use have been developed as part of the project. *A short video is available on our website.*



Kiwifruit: The Kiwifruit dashboards are rapidly evolving and deepening. They are based on one platform which is then customised for three different types of users i.e. orchardist, postharvest operator (packhouses), and industry-level (Zespri staff). The major recent development is the implementation of GHG calculators. *See link to the presentation presented at the Stakeholder Workshop in August 2015.*



Organic: There has been rapid engagement in the past quarter by BioGro to link with NZSD. They just advertised the project in [their newsletter](#). Two organic case studies have been launched (dairy and wine). *See link to the poster presented at the Stakeholder Workshop in August 2015 on the organic dairy case study.*



Ngā Tahu / Māori: The design of the sustainability assessment and learning tool for Māori in the collectively-owned asset sector (*Rauhanga Rōnaki Mahingakai*), has been finalised and integrated into a survey tool (Fluid Surveys). *See link to the presentation presented at the Stakeholder Workshop in August 2015 on the Māori case study.*



Forestry: A gap assessment to determine the extent to which the existing NZSD framework, and international forestry sustainability audit systems, meet the needs of Māori forestry organisations has been undertaken. *See link to the poster presented at the Stakeholder Workshop in August 2015 on the Māori Forestry Dashboard.*

Others - Relationships outside the five main case studies:

- **Farm Environmental Plans (FEPs)**, to meet Environment Canterbury (ECAN) requirements for farmers. *See details on our website.*
- **HortNZ**: refinement of their NZGAP programme and participation at their GlobalGAP tour day.
- **AQNZ**: Jon Manhire speaker at their 7th annual AQNZ conference in Nelson (September 2015).
- **ANZCO**: an analysis on the use of the ANZCO Waitrose Essential farm assurance programme to comply with Regional Council farm environment reporting was undertaken. This analysis identified issues in relation to the adaptation of existing assurance programmes to meet regulatory compliance requirements.

STAKEHOLDER WORKSHOP – 6 AUGUST 2015

In addition to numerous industry stakeholder workshops held in the last 6 months, the **annual stakeholder workshop** was on the 6th August, at Te Papa in Wellington. We would like to thank our speakers that made this event really successful. Speakers and participants were people:

- From our Advisory Group Morgan Williams (Future Steps) and Matapura Ellison (Ngai Tahu),
- From Government and regional agencies – MPI, MBIE, MfE, Regional Council and DOC,
- From our Industry partners (Philip Manson - NZ Winegrowers, Catherine Richardson - Zespri, Donald Nordeng - BioGro, Charlotte Servene - Lake Rotaira Forest Trust)
- From our other partners (Matthew Dolan - HortNZ, Gary Hooper - Aquaculture NZ and Alan McDermott - ANZCO)
- The Research team.

The first main session covered the **Drivers for sustainability assessment and reporting** with Nadia Scialabba (senior Officer at FAO) who presented SAFA and the linked initiatives, and Caroline Saunders (reporting on the *Maximising Export Returns* project). The main conclusions were that there are strong consumer and market signals for an increasing range of sustainability attributes related to food products. Though the desired attributes vary between markets there are some key initiatives that are gathering momentum to harmonise communication and the validation of sustainability claims.

“The Stakeholder Workshop was a good occasion for the research leaders of the NZSD programme, the Maximising Export Returns programme and the Integrated Indicators project of Our Land and Water to present on their common themes. It is clear that there is a lot of stakeholder interest in how producers and processors can measure and communicate their sustainability credentials to consumers in different markets, with the NZSD having a pivotal role to play in these value chains.” - Paul Dalziel, AERU

The second session involved a **Research update** this provided an update on the various research activities of the project and their potential application.

The third session covered the **Regulatory drivers** that the NZSD project would like to address by working in collaboration with Regional Councils as a Community of Practice, with a presentation from Jeff Daley (DOC) on a similar initiative, as well as from Kevin Collins, who is driving the scoping for the Community of Practice in this area. The main conclusions were that there was increasing interest from regulatory agencies to establish a higher standard for the reporting of environmental impacts (especially) and a desire to gain alignment in how these are developed as well as in the metrics that are used.

“Opposition to monitoring will always be here at the start. The challenge and objective is to make monitoring ‘a culture’ to ensure stakeholder engagement.” - Jeff Daley

The last session was the **Industry session**, industry partners provided presentations on their perspective of drivers for sustainability assessment and reporting and rationale for links with the NZSD project, followed by a discussion, facilitated by Morgan Williams (Future Steps).

STAKEHOLDER WORKSHOP, 6TH AUGUST 2015



Nadia Scialabba, Senior Officer at FAO



Industry session panel

RESEARCH UPDATE: THREE MAIN RESEARCH AREAS

Sustainability assessment framework

Framework and KPI selection – Prioritisation process

The NZSD is based on a comprehensive framework for assessing sustainability which we released last year. The broad nature of the framework and the limited time and resources available to end-users to undertake monitoring activities requires that scientifically defendable tools are developed to prioritise goals, initiatives, objectives, indicators, and measures. We therefore reviewed existing prioritisation methodologies and tools to identify the most flexible and sensitive guide to investment in monitoring and the way of calculating aggregated sustainability measures for upscaling to regional and national levels and to weight the four main pillars of sustainability required by international and NZSD frameworks (governance, environment, economic and social). A meta-analysis to prioritise sustainability issues has been piloted with New Zealand Winegrowers. This has assisted with developing **Sustainable Winegrowing New Zealand Plus**, a project intended to further extend many of their members, with the NZSD team providing support.



Monitoring and Reporting System - through prototypes delivered to the [industry partners](#).

Learning by doing/monitoring

Adoption and Outcomes of Sustainable Winegrowing Practices in NZ.



This project, managed by Dr Marion Sautier and Dr Katharine Legun, aims at reviewing the outcomes of the SWNZ programme. This includes direct, intentional outcomes as well as outcomes that may not be explicit in the SWNZ mandate or purpose. After collecting and analysing data from interviews and a literature review, a draft operational report was issued in June 2015 and shared with NZ Winegrowers. *For more information, see information on this sub-project and the poster presented in August 2015.*

Power analysis module



The Power Analysis package 'simr', developed by Peter Green, in collaboration with Catriona MacLeod, at Landcare Research, provides tools that **assess the power of different monitoring designs to detect trends or changes in monitoring data**. The package is built for use in 'R', an integrated suite of open-source software facilities that is widely used around the world. The package has been designed to provide a platform that allows for other packages to be added in the future. *For more information, see the Power analysis section on our website and the Poster presented at the stakeholder workshop in August 2015.*

A manuscript about this package has been submitted to the British Ecological Society journal. It has been presented at various international [conferences](#).

Use of the package: We demonstrated the utility of the package using NZSD industry stakeholders' datasets to evaluate the power of existing sampling designs for detecting trends in wine (energy) and kiwifruit ((1) copper levels in soils, (2) nitrogen inputs and leaching sectors. This package was also used to evaluate a citizen science dataset (the NZ Garden Bird Survey) for potential use in national environmental reporting. This work was carried out in collaboration with the MBIE-funded project, Building Trustworthy Biodiversity Indicators, and an external stakeholder of the NZSD project, the Ministry of Environment (MfE). It is anticipated this report (which was submitted in June 2015) will be issued online in the next few months for the benefit of other stakeholders.

MAIN PAPERS PUBLISHED

- A book chapter on 'Organic farmers: contributing to the resilience of the food system' (**Lesley Hunt**) has been published in October 2014.
- **Lesley Hunt's paper** "The challenge of economic growth for sustainable production landscapes" has been published [online \(Nov 2014\)](#) and in [**Sustainability Science Vol 10 Nb 2 \(April 2015\)**](#).
- **John Reid and Matthew Rout's paper** "Getting to know your food: The insights of indigenous thinking in food provenance" has been published in *Agriculture and Human Values Journal*.
- **Charles Merfield and Henrik Moller's paper**, coming out of the OECD ICROFS conference in November 2014, has been submitted to *Sustainable Agriculture Research*. The title is: "Are organic standards sufficient to ensure sustainable agriculture? Lessons from New Zealand's ARGOS and Sustainability Dashboard projects".



MAIN CONFERENCES PARTICIPATION (PAST OR TO COME)

22-23 April 2015, Paris, France. Temperature Agriculture Research network – Kick Off meeting. The NZSD team has been contracted to organise, and facilitate the pilot activity (PA1) “Conceptual frameworks for defining agricultural sustainability at multiple levels” of the Temperate Agriculture (TempAg) research network kick-off meeting. The PA1 theme is led by Richard McDowell from AgResearch and NZSD has provided their reviews of international sustainability frameworks and indicators to TempAg’s first stocktake and scoping activities. Prof Henrik Moller has facilitated the workshop. We have also completed and reported a survey of the relative importance indicator design criteria amongst TempAg and NZSD researchers as a first step in scoping collaborative international research.

22-26 June 2015, Queenstown. SEEM 2015 (Statistics in Ecology and Environmental Monitoring conference). Peter Green has presented the new statistical package developed for power analyses in the statistical software, R, to a mixed audience of national and international academics and stakeholders involved in statistical analysis of ecological and environmental monitoring data. This resulted in an invitation to run a workshop at the **Australian Eco-Stats conference in December 2015** for international statisticians and ecologists. It confirmed as well the opportunity for this package to be reused, developed further or adapted by statisticians and ecologists around the world for all manner of natural resource management and industrial production that step far beyond our agricultural sustainability agenda.



Peter

4-6 June 2015, Washington DC, USA. Native American and Indigenous Scholars Association Conference. This is the largest indigenous scholars’ conference in the world with over 1000 attendees. Dr John Reid has provided a presentation entitled "Building Tribal Enterprises Based on Traditional Worldviews and Values: Can they compete in global capitalist markets?" as part of the session "(Re)constructing Indigeneity and Tackling Markets in Aotearoa/New Zealand".

26-28 August 2015, Dunedin. NETS 2015 conference, New Zealand Biosecurity Institute. Henrik Moller presented the NZSD project at the plenary session. The title of the presentation is “Integration of biosecurity management into whole farm sustainability assessments: a sustainability dashboard tool for linking stakeholders in production landscapes”.



Courteney

7-11 September 2015, Durban, South Africa.

World Forest Congress. Courteney Sealey presented a paper called “Reconciliation of values”. Further she will be providing a presentation concerning Māori forestry to accompany a Ministerial address at the New Zealand consulate in South Africa.

FEEDBACK FROM NETS

“I heard a lot of positive comment about the themes you discussed and the connections you made through communications technology.”

**Richard Bowman,
Environment
Southland**

21-24 September 2015, Vienna, Austria. LUWQ2015 conference (Land Use and Water Quality). Charles ‘Merf’ Merfield is presenting “The New Zealand Sustainability Dashboard: Online sustainability assessment and reporting tools to achieve quality water outcomes in a low regulation political environment.”



Merf

1-4 November 2015, Barcelona, Spain. Global Cleaner Production and Sustainable Consumption Conference. Marion Sautier will present a paper linked to the [Adoption project](#).

6-9 December 2015, Queenstown. Agrifood XXII Conference. Four papers have been accepted from Dashboard researchers (John Reid, Tremane Barr, and the CSAFE team).

OTHER EVENTS, SUCCESS STORIES OR NEWS

Andrew Barber's article "The value of benchmarking: empowering sustainable winegrowing" has just been published in [Irrigation New Zealand - Spring 2015 magazine](#).

Henrik Moller has presented “Sustainability: a bureaucratic burden or a chance to learn and earn?” at the **Beef + Lamb New Zealand Canterbury Environment Forum**, in Christchurch in August 2015. This event aimed to engage and enthuse farmers and industry on the benefits of environmental awareness. Henrik received really good feedback and he has been invited to speak at their annual meeting for the B+LNZ Central South Island Farmer Council (15 October) in Cromwell.

Linkage: The AgriBusiness Group is now a member of the Sustainability Consortium.

