Hawke's Bay Regional Council – Scion workshop

Held on 27 April 2012 at the HBRC Building in Napier

Funded by Envirolink Small Grant - Regional Council Advice number HBRC_154

Participants from Hawke's Bay Regional Council

- 1. Keiko Hashiba Resource Technician
- 2. Warwick Hasketh Land management advisor
- 3. James Powrie Forestry Planner
- 4. Nathan Heath Land services advisor
- 5. Dr. Barry Lynch Senior Scientist Land
- 6. Tim Sharp Policy Advisor

Presenters from Scion

- 1. Richard Yao Scientist-Resource Economist
- 2. Luke Barry Economist
- 3. Barbara Hock Scientist
- 4. Brenda Baillie Scientist

Scion presentations

- 1. Overview of ecosystem services and how their value may be realised (Richard Yao)
- 2. Benefits from planted forest and Scion's research on them (Barbara Hock)
- 3. Riparian zones and an ecosystem services framework for their assessment (Brenda Baillie)
- 4. Valuing avoided soil erosion from planted forests and coastal recreation (Luke Barry)
- 5. Valuing ecosystem services provided by planted forests and uses of estimated values (Richard Yao)

Key issues identified after the presentations



Themes and issues of interest covered in the workshop

- 1. Planted forests as providers of ecosystem services
 - Siting new forests harvestable versus carbon and soil conservation
 - Harvesting practices that mitigate the temporary loss of ecosystem services
 - Harvest risks including risk areas
 - Species siting to mitigate harvest risks e.g. redwood as fast coppicing trees
 - Harvest planning software at Scion Cable Harvest Planning Software (CHPS); harvest road planning
 - Links to Protecting and Enhancing the Environment through Forestry (PEEF) – a MSI funded-funded research programme – species trials for root soil-holding capability
 - Links to Sustainable Land Management and Climate Change (SLMACC) steepland harvesting proposal
- 2. Riparians
 - Optimal riparian types including
 - Species choices; functions of vegetation
 - Optimal size of riparians
 - Establishment/speed of root growth
 - Priority areas for riparians
 - Resilient riparians
 - Stays intact longer
 - Faster recovery when damaged
 - Providing high ES values
 - Range of services; additive; private benefits
 - Appropriate to functionality e.g. ability to hold undercut bank
 - Services & benefits other than the water-focused ones
 - Identify investment needed to increase resilience of riparian; valuing service provided to costs of riparians
 - Water quality and quantity in riparian margins
 - Includes cost-benefit of N reduction
- 3. Land use interactions, decisions
 - Most effective land uses
 - Protecting economic resource potential
 - Sustainable provision of ecosystem services
- 4. Social themes
 - Cultural health index
 - Cultural indicators
 - Community trade-offs
 - Farmer cooperation e.g. reduce road construction costs
 - Willingness to pay for services; for parks
 - Private benefit of ecosystem services
- 5. Valuing ecosystem services
 - Valuation of ecosystem services (e.g., estimation of park entrance fees)
 - Value of mitigation gains for an activity e.g. planting hills versus debris dams
 - A framework that could account for the net public and net private benefits of ecosystem services
 - Carbon credits for riparians
 - Estimating the economic values soil resources

Key discussion elements and their interrelatedness

Planted fo -New fores -Harvesting -Mitigation	Riparian zones -Optimal riparian types -Priority riparians -Resilience -For ecosystem services -Mitigation	Social Community -Cultural health index
Valuing ecosystem services -Valuation -Value of mitigation gains -Value of ecosystem services -Value of soil resource Land use -Effectiveness -Potential -Sustainable ecosystem services		-Trade-ons -Cooperation -Willingness to pay -Private benefit

HBRC Strategy

- Sustainable provision of ecosystem services
 - Recreation
 - Water quality
 - $\circ\,$ Reduced erosion
- Improved well-being
 Resilient forests and
- riparian margins

Related future research themes and where to next

- 1. MSI bid 1 "Economics of Tangibles and Intangibles: Understanding the true value of Natural Capital". This proposed research aims to answer the question: *What environment valuation approaches could work best in the New Zealand context to support New Zealand's green growth strategy?* This is a Scion led bid that involves Hawkes Bay Regional Council, Gisborne Council, University of Waikato, Lincoln University, and the Department of Conservation.
- MSI bid 2 "Through the looking glass". One objective is to develop an integrated agro-ecosystem services framework that will provide a platform to consistently allow rigorous evaluation of green growth investment. This is an AgResearch led bid that involves Hawkes Bay Regional Council and other regional councils, Scion, Plant and Food Research, Landcare Research and Massey University.
- 3. Possible application for an Envirolink medium advice grant or an Envirolink tools for
 - Increasing the resilience of riparian areas in Hawke's Bay and valuing the benefits of increased resilience by estimating the value of the change in the provision of ecosystem services.
 - Estimating feasible entrance fees and/or potential amount of donations to certain parks that would benefit from enhancements
 - Valuing the benefits from key ecosystem services gained from the afforestation programme in Hawke's Bay
 - Riparians species trials and the development of guidelines for functional riparian areas
- 4. Future potential: collaborating with Scion on other research topics such as land use decision support, harvest mitigation