

NAME

Oscar Montes de Oca Munguía

PRESENT
EMPLOYMENT

Ecological Economist
Landcare Research Ltd. and the New Zealand Centre for Ecological Economics
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ACADEMIC
QUALIFICATIONS

MaAppIsc (With First Class Honours in Agricultural Systems and Management),
Massey University, New Zealand, 1999.

Post-Graduate Diploma in Manufacturing Systems Engineering, Instituto
Tecnológico y de Estudios Superiores de Monterrey(ITESM), México, 1996.

BSc Industrial and Systems Engineering, Instituto Tecnológico y de Estudios
Superiores de Monterrey(ITESM), México, 1994.

PRESENT
RESEARCH

Development of multi-agent simulation models to enable the analysis of resource
management policy options.

Quantitative modelling of peoples' choices, behaviours and lifestyles in relation
to the emergence of more sustainable societies.

TRACK RECORD

Key Participation in the following projects:

Research Title	Principal outcome	Principal end user
Pastoral 21 Values, Waikato pastoral Sector	A report on the use of an Environmental Input-Output (EIO) methodology to analyse total economic, social and environmental contributions of the Waikato pastoral industries.	Agresearch
New Zealand Dynamic Ecological-Economic Model.	A Quantitative Model in Support of the <i>Four Futures for New Zealand</i> Scenarios project.	Landcare Research Scenarios Working Group. Christchurch, NZ.
Justice Sector Pipeline Model.	A dynamic simulation model of the NZ justice sector. Aimed to assist justice sector agencies to predict work flows through the system (Police, CYF, Courts, Corrections and Crown Law).	Evaluation and Modelling Unit, Ministry of Justice
Dairy sector supply chain model	A dairy supply chain model to evaluate R&D projects aimed at modifying seasonal milk supply and composition.	DairyNZ
Meat processing plants dynamic simulation models.	Generic dynamic simulation models of meat processing plants, designed to analyse changes on logistics and layout.	AgResearch

MEMBERSHIPS
OF SOCIETIES

Member of the International Society for Ecological Economics.
Executive Member of the Australia and New Zealand Society for Ecological Economics.

PROFESSIONAL
POSITIONS HELD
IN NEW ZEALAND

Years	Position	Institution	Activity
2006– present	Ecological Economist	Landcare Research Ltd	Calculation of ecological footprints for New Zealand primary industry. Modelling of the interactions between economic, ecological and social systems.
2004– 2006	Senior Advisor Forecasting and Modelling	Ministry of Justice	Development of forecasting and simulation models in support of justice sector planning.
2003– 2004	Market Analyst	New Zealand Pork Industry Board	Statistical analysis of pork production in New Zealand. Participation in the Animal Biosecurity Consultative Committee.
2000– 2003	Systems Modeller	Agresearch Ltd	Development of optimisation and dynamic simulation models applied to more efficient livestock farming, manufacturing and distribution for the meat and dairy supply chains.

RECENT
PUBLICATIONS

Montes de Oca Munguía, O., R. Andrew, et al. (2008). Environmental Input–Output Analysis of the Waikato Pastoral Sector. Landcare Research Contract Report: LC0708/177.

Montes de Oca Munguía, O. Andrew, R., et al., (2008). Sustainability Indicators of the Meat Processing Sector in New Zealand. Unpublished report, New Zealand Centre for Ecological Economics, Palmerston North, NZ.

Montes de Oca, O., R. Andrew, et al. (2007). A Quantitative Model in Support of the Four Futures for New Zealand Scenarios. *Four Future Scenarios for New Zealand: Work In Progress Edition 2*. Landcare Research Scenarios Working Group. Christchurch, NZ, Manaaki Whenua Press.

Montes de Oca Munguía, O., Andrew, R. and Lennox, J. (2007). The use of a New Zealand Dynamic Ecological-Economic Model to address future scenarios. In Oxley, L. and Kulasiri, D. (eds) *MODSIM 2007 International Congress on Modelling and Simulation. Modelling and Simulation Society of Australia and New Zealand, December 2007*, p. 173. ISBN : 978-0-9758400-4-7

Dake, C., Montes de Oca, O. (2004). Beef Product Supply Chain Model. Paper presented in the 38th Annual Operations Research Society of New Zealand Conference. 22 November. Hamilton, NZ.

Montes de Oca, O., Dake, C., Dooley, E. and Clark, D. (2003). A dynamic simulation model of the New Zealand dairy supply chain. *Proceedings of the International congress on modelling and simulation*. (pp 1823-1828).Townsville, Australia.