

# Soil Security and Planetary Health Conference Program

Abercrombie Business School, Lecture theatre 1130

Darlington Ln & Abercrombie St, Darlington, University of Sydney NSW 2006

Note: Author in **bold** are presenting the paper at the conference

Tuesday 4 December 2018

8:15	Registration	
8:40	<p>Welcome to Country: Craig Madden (Metropolitan Local Aboriginal Land Council)          Opening: Alex McBratney (Chair, Conference Organising Committee)          Tony Capon (Conference Organising Committee)          John Bennett (Federal President, Soil Science Australia)          Honourable Michael Jeffrey (National Advocate for Soil Health)</p>	
9:00	<p><b>KEYNOTE: Global Soil Security: Goals, Achievements, and Frameworks - Morgan, C. (Texas A&amp;M University, USA)</b> introduced by Damien Field (University of Sydney, Australia)</p>	
<p><b>Global Soil Security – Facilitator: Alex McBratney (University of Sydney, Australia)</b></p>		
Time	Title	Authors
9:30	WEB-GIS Digital Platform for the Soil Security Assessment in Korea	Lim, K. (Kangwon National University, Republic of Korea); Lim, J. (Kangwon National University, Republic of Korea); Kim, S.C. (Chungnam National University, Republic of Korea); Hong, S.Y. (National Institute of Agricultural Sciences, Republic of Korea); <b>Yang, J.E. (Kangwon National University, Republic of Korea)</b>
9:40	Soil Security Investigation in the Brazos River Watershed of Texas, USA	<b>Bagnall, D. (Texas A&amp;M University, USA)</b> ; Morgan, C. (Texas A&M University, USA); Woodward, R. (Texas A&M University, USA); McIntosh, W. (Texas A&M University, USA); Black, M. (Texas A&M University, USA); Vaughan, S. (Texas A&M University, USA)
9:50	What can we do with Soil Condition, Capability and Capital information? NSW Case study	<b>Chapman, G. (NSW Office of Environment and Heritage, Australia)</b> ; Gray, J (NSW Office of Environment and Heritage, Australia); Yang, X (NSW Office of Environment and Heritage, Australia); Lobry de Bruyn, L (University of New England, Australia); Barrett, T (NSW Office of Environment and Heritage, Australia)
10:00	Soil security assessment of agricultural land in the middle-eastern China	Yang, R-M. (Jiangsu Normal University, China); Minasny, B. (University of Sydney, Australia); <b>Ma, Y-X. (University of Sydney, Australia)</b> ; Field, D. (University of Sydney, Australia); McBratney, A. (University of Sydney, Australia); Wu, C-F. (Nanjing University of Information Science and Technology, China)
10:10	Understanding the Mana of Soil through the Hua Parakore Framework: A Māori Framework for Soil Well-Being	<b>Hutchings, J. (Ngāi Tahu, New Zealand)</b> ; Smith, J. (Victoria University, New Zealand)

10:20	Towards a preliminary assessment of the soil security dimensions in Aotearoa/New Zealand	Roudier, P. (Landcare Research – Manaaki Whenua, New Zealand); <b>Lilburne, L. (Landcare Research – Manaaki Whenua, New Zealand)</b> ; Ausseil, A-G. (Landcare Research – Manaaki Whenua, New Zealand); Grealish, G. (Landcare Research – Manaaki Whenua, New Zealand); Stevenson, B. (Landcare Research – Manaaki Whenua, New Zealand); Carrick, S. (Landcare Research – Manaaki Whenua, New Zealand); Manderson, A. (Landcare Research – Manaaki Whenua, New Zealand); Greenhalgh, S. (Landcare Research – Manaaki Whenua, New Zealand); Harmsworth, G. (Landcare Research – Manaaki Whenua, New Zealand); Kalaugher, E. (DairyNZ, New Zealand)
10:30	Discussion	
10:45	<i>Morning Tea - 20 mins - Sponsored by TERN Landscapes including an overview by Mike Grundy (CSIRO)</i>	
<b>Contamination and Remediation – Facilitator: Mike Grundy (CSIRO)</b>		
Time	Title	Authors
11:05	The Growth Characteristics and Effectiveness of some Crop Plants During Rhizo-Remediation of Crude Oil Polluted Agricultural Soil	Eze, E. (Federal University of Technology Owerri, Nigeria); <b>Ogbulie, T. (Federal University of Technology Owerri, Nigeria)</b> ; Ukaulor, U. (Federal University of Technology Owerri, Nigeria)
11:15	Physical contamination – an irreversible change to soil condition	<b>Cattle, S. (University of Sydney, Australia)</b> ; Cattle, J. (NSW Environment Protection Authority, Australia)
11:25	Experiences, Lessons, and Perspectives of Rural Soil Remediation for Sustainable Environmental Quality and Food Safety in Taiwan	<b>Hseu, Z-Y. (National Taiwan University, Taipei)</b> ; Zueng-Sang C. (National Taiwan University, Taipei)
11:35	The Use of Color as a Proxy Parameter to Analyze the Urban Dust in Mexico City: A Reconnaissance Study	García, R. (Universidad Nacional Autónoma de México, Mexico); Bautista F. (Universidad Nacional Autónoma de México, Mexico); Gogutchachvili A. (Universidad Nacional Autónoma de México, Mexico); Cejudo R. (Universidad Nacional Autónoma de México, Mexico); <b>Aguilera, A. (Universidad Nacional Autónoma de México, Mexico)</b>
11:45	Off-site Consequences of Soil Management on Recreational Fishing	<b>Black, M. (Texas A&amp;M University, USA)</b> ; Woodward, R. (Texas A&M University, USA)
11:55	Magnetic properties of top soils to estimate the concentration of heavy elements in Mexico City	Cejudo, R. (Universidad Nacional Autónoma de México, Mexico); Gogutchachvili A. (Universidad Nacional Autónoma de México, Mexico); Bautista F. (Universidad Nacional Autónoma de México, Mexico); <b>Aguilera, A. (Universidad Nacional Autónoma de México, Mexico)</b>
12:05	Discussion	
12:20	<i>Lunch - 45 mins</i>	
13:05	<b>KEYNOTE: What role might economics play with soil science for achieving soil security? - Brady, M. (Swedish University of Agricultural Sciences, Sweden); Cong, R-G. (Lund University, Sweden); Hedlund, K. (Aarhus University, Denmark) introduced Damien Field (University of Sydney, Australia)</b>	

**Soil Capital and Condition – Facilitator: Johan Bouma (Wageningen University, The Netherlands)**

Time	Title	Authors
13:35	A choice experiment approach for the valuation of soil ecosystem services	<b>Thiene, M. (University of Padova, Italy);</b> Franceschinis, C. (University of Padova, Italy); McBratney, A. (University of Sydney, Australia); Field, D. (University of Sydney, Australia)
13:45	Soil Capital Based on the Ecosystem Services in Republic of Korea	Kim, S-C. (Chungnam National University, Republic of Korea); Hong, Y.K. (Chungnam National University, Republic of Korea); Lim, K.J. (Kangwon National University, Republic of Korea); Hong, S.Y. (National Institute of Agricultural Sciences, Republic of Korea); <b>Yang, J.E. (Kangwon National University, Republic of Korea)</b>
13:55	Soil mapping in France, an analysis of user needs	Richer-de-Forges, A. (Institut National de la Recherche Agronomique (INRA), France); <b>Arrouays, D. (Institut National de la Recherche Agronomique (INRA), France);</b> Bispo, A. (Institut National de la Recherche Agronomique (INRA), France); Lagacherie, P. (University of Montpellier); Laroche, B. (Institut National de la Recherche Agronomique (INRA), France); Lemerrier, B. (Institut National de la Recherche Agronomique (INRA), France); Sauter, J. (Chambre régionale d'agriculture, France); Voltz, M. (University of Montpellier)
14:05	Building classification-analogies for discriminating dilute chemical signatures in access-denied sites	<b>Chappell, M. (U.S. Army Engineer Research &amp; Development Center, USA);</b> McBratney, A. (University of Sydney, Australia); Minsany, B. (University of Sydney, Australia)
14:15	Monitoring soil conditions of South Korea from 1999-2016	Kong, M-S. (National Institute of Agricultural Sciences, Republic of Korea); Hong, S-Y. (National Institute of Agricultural Sciences, Republic of Korea); Lee, C-H (National Institute of Agricultural Sciences, Republic of Korea); <b>Minasny, B (University of Sydney, Australia)</b>
14:25	Soil quality assessment in Scotland	<b>Poggio, L. (The James Hutton Institute, Scotland);</b> McLeod, J. (The James Hutton Institute, Scotland); Castellazzi, M. (The James Hutton Institute, Scotland); Compagnucci, A. (The James Hutton Institute, Scotland); Gimona, A. (The James Hutton Institute, Scotland)

14:35 Discussion

14:50 *Afternoon Tea - 20 mins*

**Climate and Condition – Facilitator: Mara Thiene (University of Padova, Italy)**

Time	Title	Authors
15:10	Climate change impact on rainfall erosivity across Australia Alpine region	<b>Zhu, Q. (University of Technology Sydney, Australia);</b> Yang, X. (New South Wales Office of Environment and Heritage, Australia)
15:20	Effects of climate change-driven soil drying-rewetting on phosphorus leaching and soil security	<b>Khan, S (Kingston University, England);</b> Hooda, P. (Kingston University, England); Blackwell, M. (Rothamsted Research, England); Busquets, R (Kingston University, England)

15:30	A clash of cultures: orthodox science versus alternative philosophies	<b>White, R. (University of Melbourne)</b>
15:40	Codification of Indonesian peatlands for conservation and management	<b>Widyatmanti, W. (Universitas Gadjah Mada, Indonesia);</b> Minasny, B. (University of Sydney, Australia); Hidayati, U. (Geospatial Information Agency, Indonesia)
15:50	Peat soil in Indonesia: Management and mapping for sustainable use	<b>Fiantis, D. (Universitas Andalas, Indonesia);</b> Ginting, F. (Universitas Andalas, Indonesia); Gusnidar, G (Universitas Andalas, Indonesia); Nelson M. (Payakumbuh Agriculture Polytechnic Institute, Indonesia); Rudiyanto (Bogor Agricultural University, Indonesia); Minasny, B. (University of Sydney, Australia)
16:00	Soil security: An indigenous Māori perspective from Aotearoa New Zealand	<b>Harmsworth, G. (Landcare Research – Manaaki Whenua, New Zealand)</b>
16:10	Soil tests to define soil health and productivity	<b>Horwath, W. (University of California, Davis, USA)</b>
16:20	Discussion	
16:35	Close	

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### Wednesday 5 December 2018

Time	Title	Authors
9:00	<b>KEYNOTE: What is planetary health and how does soil contribute? – Capon, A. (University of Sydney, Australia)</b> introduced by Cristine Morgan (Texas A&M University, USA)	
<b>Soil Condition and Management 1 – Facilitator: John Bennett (University of Southern Queensland)</b>		
Time	Title	Authors
9:30	Soil Quality Degradation and Possible Management Options in Bangladesh	Uddin, M.J. (University of Dhaka, Bangladesh); Mohiuddin, A.S.M. (University of Dhaka, Bangladesh); Begum, S (Bangladesh Chemical Industries Corporation); <b>Hassan, M. (University of Dhaka, Bangladesh)</b>
9:40	Management of soil fertility in the traditional cultivation system in Mare Island (Loyalty Islands)	<b>Drouin, J. (I'Institut Agronomique, New Caledonia);</b> Wamejonengo, J. (I'Institut Agronomique, New Caledonia); Russet, S. (I'Institut Agronomique, New Caledonia); Ibanez, T. (I'Institut Agronomique, New Caledonia); Leopold, A. (I'Institut Agronomique, New Caledonia); Robert, N. (I'Institut Agronomique, New Caledonia); Maggia, L. (I'Institut Agronomique, New Caledonia/CIRAD/AGAP); Birnbaum, P. (I'Institut Agronomique, New Caledonia/CIRAD) Carriconde, F (I'Institut Agronomique, New Caledonia)
9:50	Re-establishment of degraded crop lands by resuscitating dormant endophytic and soil microbial community using biofilm biofertilizer	<b>Wijepala, P. (National Institute of Fundamental Studies, Sri Lanka);</b> Seneviratne, G. (National Institute of Fundamental Studies, Sri Lanka);

		Madawala, H. (University of Peradeniya, Sri Lanka); Jayasuriya, K. (University of Peradeniya, Sri Lanka)
10:00	Intensifying semi-arid cropping systems to improve soil condition	<b>DeLaune, P. (Texas A&amp;M University, USA)</b> ; Gentry, T.J. (Texas A&M University, USA); Lewis, K.L. (Texas A&M University, USA)
10:10	Predicting nutrient loss due to soil erosion across NSW	<b>Yang, X. (NSW Office of Environment and Heritage, Australia)</b> ; Leys, J. (NSW Office of Environment and Heritage, Australia)
10:20	Discussion	
10:35	Morning Tea - 20 mins	
<b>Soil Condition and Management 2 – Facilitator: Jae Yang (Kangwon National University)</b>		
10:55	Nitrogen use efficiency in agroecosystems: challenges and opportunities	<b>Dijkstra, F. (University of Sydney, Australia)</b> ; Ancev, T. (University of Sydney, Australia); Barbour, M. (University of Sydney, Australia); Chandrawati, R. (University of New South Wales, Australia); Kaiser, B. (University of Sydney, Australia); Keitel, C. (University of Sydney, Australia); Malik, A. (University of Sydney, Australia); Malone, B. (University of Sydney, Australia); Maggi, F. (University of Sydney, Australia); Merchant, A. (University of Sydney, Australia); Shrestha, A. (University of Sydney, Australia); Tang, F. (University of Sydney, Australia); Warren, C. (University of Sydney, Australia); Whelan, B. (University of Sydney, Australia); Minasny, B. (University of Sydney, Australia)
11:05	Securing our soil by adapting seasonal management to moisture status	<b>Moloney, J. (University of Sydney, Australia)</b> ; Bishop, T. (University of Sydney, Australia); McBratney, A. (University of Sydney, Australia); Field, D. (University of Sydney, Australia); Acharige, N. (University of Sydney, Australia)
11:15	Root activities of perennial grasses accelerate long-term soil organic matter decomposition in biological and physical ways	<b>Lu, J. (Chinese Academy of Sciences, China)</b> ; Dijkstra, F. (University of Sydney, Australia); Wang, P. (Chinese Academy of Sciences, China); Cheng, W. (University of California, USA)
11:25	The impact of carbon addition on the self-organisation of rhizosphere of chickpea ( <i>Cicer arietinum</i> L.)	<b>Rabbi, S. (University of Sydney, Australia)</b> ; Tighe, M.K. (University of New England, Australia); Knox, O. (University of New England, Australia); Young, I.M. (University of Sydney, Australia)
11:35	Comparing native soil carbon use efficiency with added substrate use efficiency using <sup>13</sup> C and <sup>18</sup> O tracers	<b>Mehnaz, K. (University of Sydney, Australia)</b> ; Corneo, P. (University of Sydney, Australia); Keitel, C. (University of Sydney, Australia); Dijkstra, F. (University of Sydney, Australia)
11:45	Improving soil carbon storage by mycorrhizal symbiosis in wheat cropping systems	<b>Bicharanloo, B. (University of Sydney, Australia)</b> ; Shirvan, M. (University of Sydney, Australia); Keitel, C. (University of Sydney, Australia); Dijkstra, F. (University of Sydney, Australia)
11:55	Discussion	
12:10	Dominique Arrouays (INRA) – Book Launch: <i>Global Soil Security: Towards More Science-Society Interfaces. Proceedings of the Global Soil Security 2016 Conference, December 5-6, 2016, Paris, France.</i> London: CRC Press.	
12:20	Lunch - 45 mins	

13:05 **KEYNOTE: Linking soil biota to planetary health: Exemplified by antimicrobials - Zhu, Y-G. (Chinese Academy of Sciences, China)** introduced by Tony Capon (University of Sydney, Australia)

**Links to Human Health – Facilitator: Tony Capon (University of Sydney, Australia)**

Time	Title	Authors
13:35	Software to monitor the pollution of heavy metals in soils, urban dust and plants	Bautista, F. (Universidad Nacional Autónoma de México, Mexico); Goguichaichvili, A. (Universidad Nacional Autónoma de México, Mexico); Aguilera, A. (Universidad Nacional Autónoma de México, Mexico); <b>Gallegos, Á. (Universidad Nacional Autónoma de México, Mexico)</b>
13:45	Micronutrients in soils and human health	<b>Singh, B. (University of Sydney, Australia)</b> ; Ahmad, W. (University of Sydney, Australia)
13:55	Evaluating potential for human exposure to dust emissions from biochar amended soils	<b>Parikh, S. (University of California, Davis, USA)</b> ; Gelardi, D. (University of California, Davis, USA); Li, C. (University of California, Davis, USA)
14:05	Health risk related to the lead content in urban dust of Mexico City	<b>Aguilera, A. (Universidad Nacional Autónoma de México, Mexico)</b> ; Bautista F. (Universidad Nacional Autónoma de México, Mexico); Goguitchaichvili A. (Universidad Nacional Autónoma de México, Mexico); Cejudo R. (Universidad Nacional Autónoma de México, Mexico); Delgado C. (Universidad Nacional Autónoma de México, Mexico); Gutiérrez-Ruiz, M. (Universidad Nacional Autónoma de México, Mexico); Ceniceros A. (Universidad Nacional Autónoma de México, Mexico); López N. (Universidad Nacional Autónoma de México, Mexico)
14:15	Connecting the dots: From urban soil security to human health	<b>Li, G. (Chinese Academy of Sciences, China)</b> ; Xu, Y-Y. (Chinese Academy of Sciences, China); Zhu, Y-G. (Chinese Academy of Sciences, China)
14:25	Torrents, Typhoid and Tilapia: alleviating floods, waterborne disease and fisheries depletion through soil loss management in Pacific Island river basins	Jenkins, A. (University of Sydney/Edith Cowan University, Australia); Jupiter, S. (Wildlife Conservation Society, Fiji); Mangubhai, S (Wildlife Conservation Society, Fiji); <b>Horwitz, P. (Edith Cowan University, Australia)</b>
14:35	Biodiverse soils, immune regulation, and human health	<b>Liddicoat, C. (University of Adelaide, Australia)</b> ; Breed, M. (University of Adelaide, Australia); Weinstein, P. (University of Adelaide, Australia)
14:45	Links Between Soils, Micronutrients and Human Health at Regional Scales	<b>Sorokin, A. (Lomonosov Moscow State University)</b>

14:55 Discussion

15:10 *Afternoon Tea - 20 mins*

**Farming the Soil Creatively – Facilitator: Alex McBratney (University of Sydney, Australia)**

Time	Title	Authors
15:30	Radical soil management options for broadacre agriculture in South Western Australia	<b>Knight, Q. (Agronomy Focus)</b>

15:40	Soil2Soul Farming – 50 years, just a blink in time!	Thompson, P. (Echo Hills Farming Company/Soil2Soul/InnerCircleWork, Australia); Thompson, N. (Echo Hills Farming Company/Soil2Soul/InnerCircleWork, Australia)
15:50	Moonacres Farm – Saving the Soil 1 acre at a time	Lavers, P. (Moonacres Farm)
16:00	Farming with Natural Intelligence	Haggerty, D. (Prospect Pastoral Company)
16:10	A practical approach to countering declining soil carbon	McInerney, P. (3D-Ag)
16:20	Discussion	
16:35	Close	
<b>Extra Event (volitional) – Conference Lecture Theatre</b>		
16:40	Showing of <i>Living Soil</i> (Soil Health Institute, USA) a new 60-minute documentary about soil health featuring innovative farmers and soil health experts from throughout the USA. Introduced by Executive Producer Wayne Honeycutt (President and CEO of Soil Health Institute, USA)	
17:40	Close	
18:00-20:00	<a href="#">Sydney Ideas Event</a> (all conference delegates will be automatically registered for this event)	

#### Thursday 6 December 2018

Soil Sustainability UK – Facilitator: Damien Field (University of Sydney, Australia)		
Time	Title	Authors
8:30	Public money for public good - UK post-Brexit farming policy	Holden, P. (Sustainable Food Trust UK)
8:50	Measuring and Valuating Food and Farming Sustainability	Jones, A. (Sustainable Food Trust UK)
9:00	Harmony in Food and Farming	Jones, A. (Sustainable Food Trust UK)
9:10	Discussion	
Soils For Life – Facilitator: Damien Field (University of Sydney, Australia)		
Time	Title	Authors
9:25	Save the Soil to Save the Planet - Address by the National Soil Advocate	Jeffery, M. Major General the Honourable (Soils For Life)
9:45	The State of World Soils and the Possible Impact of Climate Change	Hartley, J. Major General (Future Directions Institute)
10:05	Animal management, an essential tool in soil rehabilitation	Maslin, C. (Soils For Life)
10:15	What is Soils For Life?	Creed, N. (Soils For Life)
10:25	Using the Sustainable Development Goals as an advocacy tool for healthier soils, healthier planet	Moore, M. (Soils For Life)
10:35	Discussion	
10:50	Morning Tea - 20 mins	



11:10	<b>KEYNOTE: Enriching Soil, Enhancing Life: An Action Plan for Soil Health – Honeycutt, W. (Soil Health Institute, USA);</b> Shafer, S. (Soil Health Institute, USA); Jones, S. (Soil Health Institute, USA); Rath, B. (Soil Health Institute, USA) introduced by Alex McBratney (University of Sydney, Australia)	
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<b>Soil Connectivity – Facilitator: Cristine Morgan (Texas A&amp;M University, USA)</b>		
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Time	Title	Authors
11:40	Estimation of Carbon Stock in the Peat Soils of Bangladesh	Uddin, M.J. (University of Dhaka, Bangladesh); Mohiuddin, A.S.M. (University of Dhaka, Bangladesh); <b>Hassan, M. (University of Dhaka, Bangladesh)</b>
11:50	Humus:human – bridging art, science and farming for public education on soil	<b>Fisher, L. (University of Sydney, Australia);</b> Bolitho, J. (University of New South Wales, Australia); Morris, G. (Figtree Organic Farms)
12:00	Delivering our Future, Valuing our Soils; an inclusive Public Private partnership delivering positive change in Ireland’s soils	<b>Gilliland, J. (Devenish Nutrition);</b> Savage, P. (Department of Agriculture, Environment & Rural Affairs, Northern Ireland Executive)
12:10	Collaboration: Essential for sustainable soil management	<b>Allan, C. (Soil CRC/Charles Sturt University, Australia)</b>
12:20	A participatory approach to combat the decline of soil organic matter in croplands	Dal Ferro, N. (University of Padova, Italy); Camarotto, C. (University of Padova, Italy); Piccoli, I. (University of Padova, Italy); Berti, A. (University of Padova, Italy); Mills, J. (University of Gloucestershire, England); <b>Morari, F. (University of Padova, Italy)</b>
12:30	Engaging Stakeholders for Advancing Soil Health in the United States	<b>Rath, B. (Soil Health Institute, USA);</b> Honeycutt, W. (Soil Health Institute, USA); Shafer, S. (Soil Health Institute, USA); Jones, S. (Soil Health Institute, USA)

12:40	Discussion	
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12:55	Lunch - 45 mins	
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13:40	<b>KEYNOTE: Soil security in sustainable development - Bouma, J. (Wageningen University, The Netherlands)</b> introduced by Cristine Morgan (Texas A&M University, USA)	
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<b>Soil Capability –Facilitator: Uta Stockmann (CSIRO, Australia)</b>		
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Time	Title	Authors
14:10	Soil carbon stock capability in South Korea	Lee, C-H. (National Institute of Agricultural Sciences, Republic of Korea); Park, S-J. (National Institute of Agricultural Sciences, Republic of Korea); Hong, S-Y. (National Institute of Agricultural Sciences, Republic of Korea); Malone, B. (University of Sydney, Australia); <b>Minasny, B. (University of Sydney, Australia)</b>
14:20	Understanding Soil Capability – It has dimensions	<b>Murphy, B. (NSW Soil Knowledge Network/NSW Office of Environment and Heritage, Australia)</b>
14:30	Volcanic ash: Insecurity for the people but securing fertile soil in the future	<b>Fiantis, D. (Universitas Andalas, Indonesia);</b> Ginting, F. (Universitas Andalas, Indonesia); Gusnidar, G. (Universitas Andalas, Indonesia); Nelson M. (Payakumbuh Agriculture Polytechnic Institute, Indonesia); Minasny, B. (University of Sydney, Australia)
14:40	Soil Capability and Condition: the challenge of quantitatively defining reference states and soil change	<b>Stevenson, B (Manaaki Whenua Landcare Research, New Zealand);</b> Eger, A. (Manaaki Whenua Landcare Research, New Zealand); McNeill, S. (Manaaki



		Whenua Landcare Research, New Zealand); Hewitt, A. (Manaaki Whenua Landcare Research, New Zealand)
14:50	Digital Mapping to Secure Global Peatlands and Planetary Health	<b>Minasny, B. (University of Sydney, Australia);</b> Berglund, Ö. (Swedish University of Agricultural Sciences, Sweden); Connolly, J. (Dublin City University, Ireland); Hedley, C. (Natural Resources Institute, Finland); de Vries, F. (Wageningen Environmental Research, The Netherlands); Gimona, A. (The James Hutton Institute, Scotland); Kempen, B. (ISRIC – World Soil Information, The Netherlands); Kidd, D. (Department of Primary Industries Tasmania, Australia); Lilja, H. (Natural Resources Institute, Finland); Malone, B. (CSIRO, Australia); McBratney, A. (University of Sydney, Australia); Roudier, P. (Natural Resources Institute, Finland); O’Rourke, S. (University College Dublin, Ireland); Rudiyanto (Institut Pertanian Bogor, Indonesia); Padarian, J. (University of Sydney, Australia); Poggio, L. (The James Hutton Institute, Scotland); Thompson, D. (Natural Resources Canada, Canada); Tuve, C. (Natural Resources Conservation Service, USA); ten Caten, A. (Universidade Federal de Santa Catarina, Brazil); Widyatmanti, W. (Universitas Gadjah Mada, Indonesia)
15:00	Facilitating land capability assessments through automation of the generation of land quality indicators	Batjes, N. (ISRIC World Soil Information, The Netherlands); de Leeuw, J. (ISRIC World Soil Information, The Netherlands); Heuvelink, G. (ISRIC World Soil Information, The Netherlands); Leenaars, J. (ISRIC World Soil Information, The Netherlands); Mantel, S (ISRIC World Soil Information, The Netherlands); <b>Poggio, L. (ISRIC World Soil Information, The Netherlands);</b> Rossiter, D. (ISRIC World Soil Information, The Netherlands); van den Bosch, R. (ISRIC World Soil Information, The Netherlands); van Lynden, G. (ISRIC World Soil Information, The Netherlands)
15:10	Mapping the soils of the world: a vision, a daydream or a nightmare?	<b>Arrouays, D. (Institut National de la Recherche Agronomique (INRA), France);</b> Richer-de-Forges, A. (Institut National de la Recherche Agronomique (INRA), France); McBratney, A. (University of Sydney, Australia); van den Bosh, R. (ISRIC, The Netherlands); Bouma, J. (Wageningen University and Research, The Netherlands)
15:20	Discussion	
15:35	Wrap-Up by Tony Capon (University of Sydney, Australia)	
15:45	Close	
15:45	Afternoon Tea	
18:30	Conference Dinner to be held at L'Aqua - Rooftop Level, Cockle Bay Wharf, Darling Park, Sydney NSW 2000	



## Workshop, Friday 7 December 2018

**9.00am to 1.00pm**

Abercrombie Business School, University of Sydney, Lecture theatre 1050  
Darlington Ln & Abercrombie St, Darlington NSW 2006

**FREE EVENT**

Contact Helen Moore ([moorehm52@gmail.com](mailto:moorehm52@gmail.com)) to register.

9.00 Introduction and welcome – Facilitator

9.10 National Soil Advocate's report – *Restore the Soil, Prosper the Nation*

Questions

9.45 The UK experience – Patrick Holden and Adele Jones

Questions

10.30 **Morning Tea**

11.00 Facilitated Q & A Panel

- **Patrick Holden** and **Adele Jones** - The Sustainable Food Trust UK,
- **Di Haggerty** - WA farmer,
- **Charlie Maslin** - NSW Monaro farmer,
- **Professor Justin Borevitz** - Australian National University, and
- **Associate Professor Daniel Tan** - Sydney Univ, Sydney Institute of Agriculture.

1. What are we teaching about regenerative agriculture at our agriculture colleges and universities? How relevant is the information to future farmers and agronomists needing to improve the health of the soil and agricultural landscapes overall?
2. What regenerative agricultural information do farmers need, where is it kept and how should it be delivered?
3. How did you as a farmer handle this drought and how will you better prepare next time?
4. Should Natural Capital Evaluation be the new form of valuing a farm (a summary of its economic, environmental and social worth)? How do we get the banks to change?
5. Is there an acknowledged leading country in regenerative agriculture, who is it and why is it the leader?
6. Is regenerative agriculture the best way to improve the health of our soil, restore the land and improve productivity into the future? Does it lead to improved economic, environmental and social outcomes? If so why?

12.45 Wrap up and close

1.00 **Lunch**