**NEXUS BIG CHALLENGES**

**Pre-workshop registered priorities**

**University of Southampton – Wednesday 15th June 2016**

1. Challenge of ensuring NEXUS research can be integrated into planning and policy development Ie need for accessible tolls for policy makers to embed NEXUS in decision making.
2. NIMBYism - Restricting the diverse thinking required to understand the NEXUS correctly promoting short-term thinking.
3. The impact of climate change on renewable energy sources and the impact mitigation technologies, such as CCS&U will have on cost, food sources, water etc.
4. The juxtaposition between attempting to transition to a less C02 intensive energy production model whilst maintaining a diet reliant on a meat and dairy industry with an astronomical impact in terms of greenhouse gases is an enormous problem in terms of our WEF future.
5. Changing societal values to shift to a less emissive and less water intensive diet (less beef and dairy, more chicken, eggs and vegetables) is certainly one of the greatest challenges we will face.
6. How can NEXUS topics integrate with wider earth systems/planetary boundaries and anthropacene. Agendas and challenges
7. Transition to a resilient circular economy with public scepticism.
8. Addressing demand for water, energy, food. Changing consumption patterns especially meat and dairy products.
9. The exclusion of economics - need for a ‘water, energy, food economics nexus’. Expansion of the WEF boundaries until any challenge becomes too big to handle.
10. Modelling complex social-ecological systems in the real world – to the extent that the models can simulate non-linear/abrupt change in the future. Define ‘sustainable’ in a ‘sustainable intensification’ of farming.
11. Maintain sustainable socio-ecological systems globally in the face of global social and biophysical change.
12. Water – 1) protection and safeguarding of water distribution systems, 2) energy efficient water treatment and distribution 3) move towards local distribution and use of food, water and energy.
13. Demand management – how do we do it better. Efficiency leads only to more demand (Jefons paradox).
14. Saving agricultural water.
15. To put INTO PRACTICE the nexus approach, that is to break all the institutional (and others) behaviours that makes difficult a vertical and horizontal integration of the water, energy and food sectors across policy-making, business academic and civic society.
16. How can we improve crops to improve energy harvesting and so reduce land needed to generate the same amount of food – use less water?
17. Identify the WEF problems that the PUBLIC think are priorities for the future to enable RCs and policy makers to factor to these in on prioritisations and resource allocations.
18. Selling a definition of NEXUS outside of University. Significance of ecosystem change – what is a significant change. Value ecosystems – system offsetting/compensation.