



International Symposium – Summary Report



**COMPLEXITY APPROACHES TO EVALUATE GLOBAL
NEXUS POLICY CHALLENGES**

On the 9th and 10th November 2017 the Centre for the Evaluation of Complexity Across the Nexus (CECAN) hosted a two-day International Symposium at Barnett Hill, Surrey, UK bringing together national and international academics, practitioners and policymakers involved in policy evaluation to explore how complexity approaches can and are being used to evaluate and reframe policies in the nexus.

The Symposium had three central ambitions:

- Explore the latest developments in the evaluation of international nexus policies and why complexity is fundamental
- Encourage international effort to boost the inclusion of complexity approaches in informing nexus policy evaluations
- Catalyse the development of an international community of practice and excellence in nexus policy innovation

The Symposium offered a unique opportunity for key figures in the international evaluation community to come together and share their expertise and experiences whilst highlighting some of the latest methodological insights, best practice, and evaluation approaches for addressing complex nexus issues.

During the symposium delegates actively engaged in a number of cross-cutting themes, including:

- Communicating complexity in an evaluation context
- Methodological innovation in international policy evaluation
- Lessons learned in undertaking Nexus policy evaluations
- Sharing best practice and experience: knowledge-exchange and co-production
- Developing capacity in international Nexus policy evaluations

The insights generated from those cross-cutting discussions form the basis of this summary report.



10
Countries



12
Universities



11
Practitioner
Organizations and
Consultancies



6
Government
Departments and
Agencies



The Need for Complexity Appropriate Evaluation: Key Messages

1. Increasing recognition that ecological, social, economic and political systems are linked, interdependent and complex and therefore need to be understood as 'social-ecological', 'socio-technical' systems etc.
2. Applying a complexity lens to policy evaluation means *ADVOCATING EVALUATION AS PART OF THE WHOLE POLICY CYCLE*, contributing to an iterative and reflexive form of policymaking.
3. Dealing with timescales is a central problem across the 'policy cycle'. There is a need to *BALANCE AND ACCOMMODATE SHORT-TERM AND LONG-TERM THINKING*, and how and when and with whom knowledge and expertise can usefully contribute to the process of policymaking.
4. *CIVIL SERVANTS ARE ENGAGING WITH COMPLEXITY* and recognize the need for complexity approaches to be part of the policy design and evaluation process, but they are subject to '*SYSTEMIC*' *CONSTRAINTS* that actively undermine that process of engagement and maintain the status quo approaches within Government.
5. Recognizing complexity and applying complexity approaches does not mean providing simple answers to policy questions, or indeed, a specific answer at all. Instead, complexity provides a more *COMPREHENSIVE* and *NUANCED* understanding of the functioning of a policy (or series of policy) intervention(s) so that *DECISION-MAKING PROCESSES* are *BETTER INFORMED* and likely to produce more *EFFECTIVE* future policy interventions.
6. Complexity engagement with policy evaluation (and policymaking more broadly) opens a conversation that challenges the traditional top-down mode of public policymaking within Government, thereby creating an *OPPORTUNITY FOR MORE 'OPEN' FORMS OF POLICYMAKING*.
7. Different contexts, globally speaking, perceive policymaking in different ways, with some being more overtly 'political' while others are more 'technocratic'. This means engagement with complexity needs to be *SENSITIVE TO THE INSTITUTIONAL CIRCUMSTANCES* in which it is being advocated.
8. There is a need for more '*EXPERIMENTATION*' within policy design and evaluation, recognizing that failure will occur but that it is also an opportunity for learning: a movement towards *ADAPTIVE POLICYMAKING*.



Complexity and Sustainability

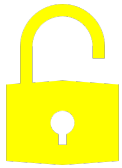
Dialogues: Key Messages

1. '*NEXUS THINKING*' provides a means of acknowledging the interactions among the sustainable development goals (SDGs) and their interrelationships.
2. Nexus thinking is process and *PROBLEM-ORIENTED*: this automatically lends the nexus to practical decision-support solutions.
3. Need to recognize that the nexus, and nexus applications, operate at different *SCALES*. This understanding needs to be central to any decision-support tools based on nexus theory.
4. Focusing on the complexity of the SGDs demands more effective development approaches and, in particular, understanding the linkages between different economic growth models and the sustainability of development trajectories.
5. Critical to be asking '*WHAT SHOULD WE EVALUATE?*', so that aspects important to development – especially in the Global South – are not overlooked.
6. Evaluation and development are influenced and framed by the *EVALUATIVE CRITERIA* used. These criteria can often dictate what is regarded as being worthy of consideration and drive the development process in particular directions, in many respects, down avenues in which development is not seen as a complex process.
7. *DEVELOPMENT IS INHERENTLY COMPLEX*, and so the criteria used to evaluate the SDGs need to be based on five underlying criteria: i) *COHERENCE* (between things that matter); ii) *SYNERGY* (complementarity); iii) *SIGNIFICANCE* (including relevance and focusing on interrelationships between interventions); iv) *ADAPTATION*, agility, improvisation and responsiveness (esp. context and culture); and v) *IMPACT* (taking account of ecological sustainability, impact sustainability, risk/uncertainty).
8. Critical to shift the basis of evaluation from one of *ACCOUNTABILITY* to one of *LEARNING*, from an approach to evaluation which is effectively accountability to one that advocates knowledge, understanding and ultimately learning.
9. This links to an *ADAPTIVE APPROACH*: we must expect complexity and so experiment. Adapt to the way an intervention is altering the system and use M&E in *REAL-TIME* to capture the learning of how the system is responding and changing.



Making the Case for Complexity Methods in Nexus Policy Evaluation: Key Messages

1. Need to shift evaluation theory and practice away from positivist dominated approaches to those that espouse *MULTIPLE LOOP LEARNING*, *2ND ORDER ENQUIRY* and *REFLEXIVE DESIGN*.
2. It is increasingly important to consider the roles of *LEGITIMACY* and *POWER* in the design and implementation of evaluations, their practice and use.
3. Complexity theory and approaches are increasingly of use in the social world, which has grown more complex. Need to focus on *NETWORKS* and *AGENT-BASED MODELS* that can examine, interrogate and visualize interactions between actors based on notions of trust, cognitive abilities, access to services and relate these to how interventions affect behaviour.
4. Complexity methodologies allow us to go *BEYOND MERELY NUDGING* people's behaviour, to a greater appreciation of how actors interact with and through systems, and in how those interactions translate to behaviours and actions in response to a suite of policy interventions.
5. Complexity-thinking and approaches need to be more *SOCIALIZED*, not just within evaluation practice, but within the wider education system.
6. *MENTAL MODELS AND FRAMINGS* are critical, we need to be asking *WHO SHOULD EVALUATE?* Needs to be *CONTEXT SPECIFIC*, Western views of the role of policy and evaluation may not be at all applicable in the Global South: evaluation itself must be *LOCAL*, and also account for the different roles and agendas of stakeholders within that process (i.e. the role of scientist vs. the role of the politician).
7. We need to introduce *NON-LINEAR FORMS OF THINKING* early in education, expand individuals' frames of reference and imagination to embrace alternative cultural perspectives, to avoid rigid thinking that easily assumes a superiority of one perspective or way of doing things over another.
8. Mitigating resistance against the use of evaluation within organizations it is useful to focus on the *LANGUAGE OF RISK AND RISK MANAGEMENT*, and the positive role evaluations can play in the management of these issues which often have significant social and economic implications.
9. Adopting *ACTION-RESEARCH CONCEPTS* provides a means to 'open-up' the organizational design of interventions to a greater degree of participation, which will improve the struggling relationship between policy and the contribution of experts (capacity, development, group identity etc.),



Falling Walls – Breaking Through Barriers: Key Messages

1. Recognize the importance of *SOCIAL PSYCHOLOGY*: there has been a shift of psychology due to globalization which is not being addressed in policy. We need a *THERAPEUTIC POLICY* approach, which considers community-based needs and deals with the causes and consequences of social movements in response to the processes of globalization.
2. Using a developmental evaluation approach to address wicked problems and improve guidance needs a *LEARNING-LOOP APPROACH* to '*EXPERIMENTAL GOVERNANCE*'. Must balance the pace of learning vs. depth of evidence required by looking at the number of learning loop cycles that generate sufficient learning.
3. We need to *OPERATIONALIZE THE NEXUS* by embedding policy and politics in modelling. The main problems are how to represent the complexity of: i) governance; ii) learning; and iii) policy goals and instruments. This requires modelling within an inter- and trans-disciplinary frame, building a broad evidence-base that integrates disciplines and research tools.
4. We need to be much more considerate and explicit in evaluation about the *PROBABILISTIC NATURE OF OUTCOMES UNDER COMPLEXITY*. Certain outcomes/impacts can only be understood in terms of either increased or decreased likelihoods. Ultimately, this requires understanding of causal pathways in evaluation and policy, and as such *BAYESIAN APPROACHES* ought to be much more widespread in policy evaluation circles.
5. Evaluation is inefficient, and its potential is under-utilized. Evaluation needs to be much more strategic in its approach to judging policy, this can be done by *LINKING EVALUATION WITH FORESIGHT AND STRATEGIC PLANNING*.
6. In evaluation we need to alter our frame and focus on '*WHAT WILL SOLVE MY PROBLEM*'. We can then focus on much more pared-down and simple ways to communicate complexity – in an informed way but in a manner that connects with the policy audience. This is important for ensuring evaluation outcomes input into decision-making processes in a timely manner and inform policy going forwards.
7. Disconnect between *HIGHER-LEVEL POLICY AND EVALUATION PROBLEMS VS. ACTUAL PROBLEMS ON THE GROUND OBTAINED VIA LOCAL COMMUNITY-LEVEL KNOWHOW*. Need to bridge that divide through more participatory processes to improve the tensions between points of view, knowledge domains and worldviews, and how these can be reconciled to generate more informed and development-sensitive processes and policies.



Increasing the Uptake of Complexity Appropriate Evaluation Methods: Key Messages

1. Need to *SHIFT THE DOMINANT PARADIGMS AND PRACTICES* within Government regarding preferences for methods utilization by *ENGAGING THE KEY INFLUENCERS* and working with them closely: talk to champions and leads – heads of profession: scientists, economists, operational researchers.
2. Embed complexity-appropriate evaluation skills in '*COMPETENCY FRAMEWORKS*' for relevant posts and professions in Government.
3. Increase *AWARENESS AND DEMAND*: engage with civil servants, commissioners, evaluators etc. to make a basic commitment to the importance of evidence.
4. *BETTER COMMUNICATION* of complexity theory, approaches and practice: need to speak the *LANGUAGE OF OUR TARGET AUDIENCES* – sell what they want – important for advocacy on the demand-side (e.g. Government, business).
5. Develop a '*COMMISSIONING FRAMEWORK*' that helps commissioners to triage evaluations by assessing the extent to which evaluations need to be adaptive in order to prioritize and allocate resources accordingly.
6. *BUILD NETWORKS, ALLIANCES AND PARTNERSHIPS* extending beyond the professional evaluation community.
7. *TRAINING AND EDUCATION*: mainstreaming complexity and developing capacity and necessary skills throughout the education system.
8. Create a series of *DECISION THEATRES* – for simulation and business games – spaces where policymakers and evaluators to exchange ideas.
9. Provide *CONSTRUCTIVE AND POSITIVE NARRATIVES* about the importance of complexity approaches alongside highlighting the failures of conventional approaches.
10. Develop and *ADVOCACY TOOLKIT* so people can make the case for complexity-appropriate evaluation and disseminate that case strategically.



Getting Government to Deal with Complexity: Key Messages

1. *PROVISION OF APPROPRIATE MODELLING TOOLS*: SIM4NEXUS (S4N, gamification approach) is an integrated tool for testing and evaluating policy based on: i) Complexity science and A.I. research; ii) Integration of policy elements; iii) the analysis of 12 cases studies at different scales and regions across the EU; iv) 7 different types of model, and v) Inclusion of stakeholder views.
2. Tools like S4N can be deployed in the context of *POLICY COHERENCE AND POLICY INTERACTIONS* (e.g. to demonstrate interaction between SDGs and identify 'nexus critical goals'). In this context they can contribute to how institutions and decision-making procedures operate.
3. The *IDEALIZATION OF THE POLICY CYCLE IS A STUMBLING BLOCK* to complex evaluation, need to move mental models towards seeing evaluation as an a-temporal, iterative and non-linear process.
4. Complexity needs to be *EXERTED* across several important areas, including: i) strategic decision-making; ii) supporting new institutions; iii) improving policy design and execution; iv) accountability and transparency; and v) institutional learning.
5. Need to produce a *COHERENT* set of complexity-appropriate evaluation *GUIDELINES* and an associated *ONLINE PLATFORM*.
6. It's important to *ESTABLISH A CULTURE* for complexity-appropriate evaluation – need to encourage data and knowledge sharing; a greater focus on monitoring; more consistency between quantifying the costs and benefits and examine and account for more robustly the role of multiple actors operating at multiple levels.
7. Crucial that the supply-side makes the case for *INNOVATIVE* complexity-evaluation to improve its demand-side uptake.
8. Ultimately, evaluation needs to be *REFRAMED* so that it is not presented as a policy burden but rather an *ASSET* that can improve policy effectiveness and efficiency.



Building a Sustainable Community of Practice and Future Developments: Key Messages

1. **Areas of work:** i) Bid for/do evaluations; ii) Go beyond the 'nexus' – link the nexus to the SDGs and Global Transformation; iii) Education and training: engage in exchanges with policymakers; iv) Innovate methods to address complexity such as a focus on data mining; v) Examine in more depth the role of the evaluator in complex contexts; vi) apply more complexity-appropriate methods in institutional settings; and vii) focus on outreach – the communication and dissemination of complexity across different groups and sectors
2. **Mechanisms to work together:** i) Workshops, webinars and decision theatres; ii) regular newsletter updates; iii) develop shared projects and submit proposals for funders; iv) seminars at Evaluation Association Conferences; v) organize an annual international 'big event'; and vi) form a Linked-In Group
3. **Others to involve:** i) Intergovernmental organizations (e.g. UNDP, UNEP, WHO, GEF, World Bank); ii) Evaluation Societies (e.g. UK, European, American); iii) Network hubs and partnerships (e.g. Foresight networks and evaluation partners like Better Evaluation); iv) UK-Government related (e.g. CEDIL, Cabinet Office, Government Office of Science) v) Think Tanks (e.g. Institute for Government, Institute for Risk management, IIED, ODI, Oxfam); vi) Research (e.g. Future Earth, ESRC Systemic Risk Centre, Open University Systems Group) and vii) Business and Industry (e.g. Energy and construction firms)

Participating Organizations

Arizona State University
DAI Global
Department for International Development
Durham University
Eurofund
European Commission
IIED
Institute for Environmental Studies Netherlands
IOD PARC
Itad
Johannes Gutenberg University Mainz
Kent State University
LTS International Ltd
Natural England
Netherlands Environmental Assessment Agency
Oxfam GB
Policy Studies Institute
Risk Solutions
SDF Global Pty Ltd
Stellenbosch University
Strategy Development Solutions
Tavistock Institute
UKRI Strategy
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University of Geneva
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