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FORESIGHT IN INTERNATIONAL DEVELOPMENT

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Foresight and International Development*

Kate Bingley

Abstract This article provides an overview of the use of foresight-type approaches and techniques in policy-related work in international development. It draws primarily on published and grey literatures, as well as select interviews with foresight practitioners. It begins with a brief introduction to the approaches and tools used in the field of strategic foresight, and then a broad mapping of the foresight landscape as relevant to international development. It provides reflections on the evidence of use and impact of foresight initiatives, and makes suggestions around future directions for foresight in international development.

Keywords: Development, evaluation, foresight, futures, international, scenarios.

1 Introduction

In general terms, foresight is about understanding the future systematically, usually considering a horizon of at least ten years into the future (Kuosa 2011: 9). Slaughter (1995: 48, in Kuosa 2011) defines foresight as a process that attempts to broaden the boundaries of perception in four ways: by assessing the implications of present actions and decisions; by detecting and avoiding problems before they occur; by considering the present implications of possible future events; and by envisioning aspects of desired futures.

Numerous foresight techniques are available for different, specific purposes (EEA 2011b: 16). One principal distinction is made between quantitative studies that rely heavily on modelling methods, and are commonly used in fields of study such as macroeconomics, energy and climate change; and qualitative approaches, which provide a narrative description of futures issues, paths and uncertainties, and that have been applied in many sectors ranging from technology foresight to environment and politics (EEA 2011a: 9). Each approach has its advantages and limitations, and in practice, quantitative modelling and qualitative methods are increasingly used in combination.

Another principal distinction is made between horizon-scanning (or environment-scanning) approaches, which may involve scanning various

sources (including non-traditional literature such as newspapers and blogs) for information on emerging trends; model-based projections that can provide an understanding of causal relationships; and broader scenario-planning approaches. In their course on foresight, Loveridge, Keenan and Saritas (2010) foreground methods such as Delphi (a large-scale survey tool) and technology roadmapping, in addition to scenarios and horizon-scanning approaches.

Valuable sources of information on specific foresight techniques and tools include the UK Horizon Scanning Programme Team's Futures Toolkit (Cabinet Office and Government Office for Science 2014), and the Futures Research Methodology compendium produced by the Millennium Project,¹ the latest edition comprising 39 chapters with detailed information on a wide range of foresight methods (Glenn and Gordon n.d.). Both sources detail techniques and tools most commonly associated with the general field of foresight. Loveridge and Cox (2013) produced a guide entitled *Innovation for Development: Knowledge and Research Application to Address International Development Goals: A Toolkit*, intended for use by planners, policymakers, decision-makers and other relevant bodies in government, non-governmental organisations (NGOs) and the private sector. The notion of 'toolkit' is slightly misleading, as the publication does not focus on methods or tools; however, it recognises technology and innovation as a major force on human development and vice versa, and does provide readers with a good introduction to technology foresight more broadly.

Foresight methods are evolving, and being adapted to different contexts. The Millennium Project has developed various tools, including the Real-Time Delphi and the State of the Future Index (SOFI). The SOFI is a quantitative time series that indicates the changing state of the future and shows whether conditions promise to get better or worse. The Millennium Project regularly publishes global and regional studies such as the *2013–14 State of the Future*, a global report based on the SOFI (Glenn, Gordon and Florescu 2014). National-level *State of the Future* reports have also been produced, but the SOFI is currently only applied in a selection of developed countries.

One aspect of foresight which has particular relevance to international development is the nature of stakeholder participation in the foresight process. In their catalogue of environmental scenarios, the European Environment Agency (EEA 2011a) makes a useful distinction between initiatives that are analytic (defined as desk-based research and analysis by an individual or a group) and those that are participative. In the broader literature, the rationale for participatory processes varies widely, and is often implicit rather than explicit. Many government foresight units recognise the importance of involving key policy stakeholders in the foresight initiative from the start, in order to inform the process and findings, and to secure buy-in and enhance the likelihood of the findings ultimately informing decision-making; this mirrors practice in research uptake more broadly. Havas, Scharfetter and Weber (2010) describe

some of the process benefits associated with developing context-specific scenarios. However, in describing processes as ‘participative’, documentation of foresight initiatives often fails to distinguish between expert participation and ordinary citizen participation; which likely reflects implicit assumptions regarding how policy change is achieved, and also regarding whose voices count in the policymaking process. A separate strand of the foresight literature does, however, focus on the opportunities for anticipatory democracy (see, for example, Bezold 2010), and how ways that futures thinking can ‘reflect the needs of the vast majority of people, rather than the interests of the few’ (Ramos, Mansfield and Priday 2012: 86).

Having outlined some of the main approaches to strategic foresight, the remainder of this article deals with foresight in the context of international development. Section 2 presents a broad mapping of the foresight landscape, as relevant to international development. In Section 3, the author shares examples of scenario processes used in a variety of international development contexts. The author then reflects on the evidence of use and impact of foresight initiatives in Section 4, before concluding and suggesting future directions for foresight in international development in Section 5.

2 Mapping the foresight landscape

2.1 Global overview

Foresight initiatives have been undertaken around the world by a wide range of international development actors including international intergovernmental organisations (multilateral agencies), governments in the global North (or bilateral agencies), philanthropic foundations, as well as academia (universities, research institutes, policy thinktanks) and NGOs/civil society organisations (CSOs) in the North and South. Examples can be found at the national, regional or global level in sectors such as health, agriculture and food, governance, conflict and security, climate change and the environment, technology and innovation. However, documentation of foresight initiatives undertaken in least developed countries is relatively sparse. The level of resources invested in foresight initiatives varies enormously, from a modest local exercise conducted involving a few staff members at minimal cost, to a large-scale international project costing US\$24 million (the total cost of the Millennium Ecosystem Assessment in 2005) at the upper end of the scale.

There are varying degrees of foresight activity in different regions. In Latin America and the Caribbean, the United Nations Industrial Development Organization (UNIDO) has played a pivotal role in the development of a foresight culture (Popper and Medina 2008: 259). UNIDO’s Technology Foresight Programme for Latin America and the Caribbean (TFLAC) was launched in 1999; this led Argentina, Brazil, Colombia, Mexico, Uruguay and Venezuela to initiate preparatory activities for setting up national programmes, but only some of these countries managed to institutionalise a technology foresight programme (*ibid.*). According to the most recent mapping exercise undertaken by the

European Foresight Monitoring Network (EFMN), foresight initiatives in Latin America tend to be national in scope and feed into national policymaking processes, but they are more often sponsored by non-state actors such as international organisations or NGOs than by their own government (EFMN 2009: 36).

Africa is excluded from the data altogether; the authors acknowledge that Africa remains under-represented in the report, and attribute this in part to the fact that foresight is commonly understood as technology foresight, and 'Africa's roles in technological innovation remain rather limited (and perhaps in some respects invisible)', and that work undertaken by forecasters, modellers or scenario-builders in other topics unrelated to technology are not properly represented (*ibid.*: Foreword). In the same vein, the Global Foresight Outlook 2007 data indicates that only 11 of 846 initiatives mapped globally are African. In comparing foresight 'style' in six world regions, Keenan and Popper (2008: 34) note that 'the data for Oceania and Africa have been deemed inadequate for inclusion in our analyses'.

2.2 International institutional programmes

The OECD² Secretariat and the EU European Commission created dedicated futures research units in the late 1980s, and the United Nations Development Programme (UNDP) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) followed suit in the early 1990s (Sagasti 2004). The OECD's International Futures Programme promotes forums, projects and networks (OECD 2010). The primary policy focus of recent studies has been on OECD member countries, although one study of the 'bioeconomy to 2030' explicitly states the relevance of its findings to developing countries (OECD 2009). The Sahel and West Africa Club (SWAC), a member of the OECD Development Cluster, is a group of West African regional organisations, countries and international organisations that exchange experiences and perspectives to help build more effective regional policies. The SWAC Secretariat plays a role in foresight by providing independent and forward-looking analysis which aims to enrich the debate and better inform decision-makers about future challenges.

In 1992, UNDP set up the African Futures project to support African countries to undertake forward-looking studies and develop a long-term vision of their development. Between 1992 and 1995, African Futures provided technical support to the planning and implementation of 25 national studies that reflected on visions and alternative strategies for the future; one example of such a process is Burundi Vision 2025. Publications of the African Futures project include a set of four scenarios for Africa in the year 2025 (Sall and Mbeki 2003). In early 2004, UNDP established the African Futures Institute (AFI) in order to harness the gains made under the African Futures project, and to sustain futures analysis in the region. Registered in South Africa, the AFI positions itself as a pan-African organisation, with a vision to facilitate Africa's formulation of its own path to development, developing its own methods and approaches.

UNESCO's Foresight Programme is located in its Bureau of Strategic Planning, and it convenes a futures forum, as well as organising lectures and seminars. The stated purpose of the programme is to sensitise members of the global UNESCO Secretariat as well as member states to future trends in education, the natural sciences, the social and human sciences, culture and information and communication, and to support member states in developing their own capacities and approaches in the field of foresight. In May 2014, a three-day forum was organised by UNESCO's Imagining Africa's Futures project, in collaboration with the University of the Witwatersrand, Johannesburg, and the Southern African Node of the Millennium Project. This symposium, 'All Africa Futures Forum: Transforming Africa's Future', brought together African futures thinkers and practitioners with the aim of exploring 'how the "discipline of anticipation" has been shaped and applied in Africa and how it can be deliberately leveraged towards transforming Africa's future onto more positive trajectories.'³ One of the stated objectives was to enable the establishment of an African Network of Foresight Practitioners.

Hilbert, Miles and Othmer (2009) describe an initiative supported by the UN that they believe to be the 'most extensive online participatory policy-making foresight exercise in the history of intergovernmental processes in the developing world to date'. The process comprised a five-round Delphi exercise and secured 1,454 contributions, which were then fed into intergovernmental decision-making as part of the Regional Action Plan for the Information Society in Latin America and the Caribbean (eLAC2010). The authors highlight the governments' acknowledgement of the value of *collective intelligence* from civil society, academic and private sector participants of the Delphi and the ensuing appreciation of participative policymaking. On the basis of the eLAC experience, Hilbert *et al.* (*ibid.*) advocate the potential of online foresight tools to facilitate participation in resource-scarce developing countries. UN agencies have sponsored many high-profile foresight exercises to explore concerns and problems that transcend national boundaries. These include the Millennium Ecosystem Assessment (2005), Global Environment Outlook (UNEP 2012), the Global Energy Assessment 2012 (GEA 2012), and the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

2.3 The UK Foresight Programme

The UK Foresight Programme was established in 1994 to embed a futures approach in strategic policymaking in government. It is considered a relatively mature programme in the European context, together with Sweden and the Netherlands (EEA 2011b). Studies are essentially expert-led, reflecting the 'less egalitarian/participative tradition to policy making' observed in the institutional arrangements of the UK compared to Finland, Sweden and the Netherlands (EEA 2011b: 49). There is, however, broader engagement with stakeholders, and especially decision-makers, from an early stage in the process in order to secure their buy-in and to facilitate effective uptake of

Table 1 Projects of the UK Foresight Programme with relevance to international development

| Project | Collaboration | Papers commissioned |
|---|---|--|
| Reducing Risks of Future Disasters (2010–12) | Expert group involved representatives from NGOs, academia and the private sector | 14 papers |
| Global Food and Farming Futures (2009–11) | Politically co-sponsored by DFID and DEFRA Follow-up actions ⁴ identified for UN, OECD, Oxfam, Gates Foundation and World Economic Forum | >100 evidence papers |
| Migration and Global Environmental Change (2009–11) | Partners included UNHCR, UNICEF and DFID Involved 350 experts and stakeholders, across 30 countries. Workshops in Ghana and India | 70 papers and other reviews |
| Detection and Identification of Infectious Diseases in UK and Africa (2004–6) | Collaboration with African Union Process involved >300 leading experts and stakeholders from nearly 30 countries (including 20 African countries), as well as many international organisations | >60 science reviews, papers and case studies |

Source Author's own.

the findings. Table 1 outlines the main projects of the UK Foresight Programme that intersect with international development.

Against the backdrop of these large-scale studies, the UK's Foresight Horizon Scanning Centre (HSC) was created in 2005 to tackle narrow policy questions often at the request of a particular department. Horizon scanning occurs in a wide range of UK government departments, including DFID. Horizon scanning, deemed 'the foundation of foresight' by Loveridge *et al.* (2010), has a distinctive role to play in the realm of international development, notably to support identification of key issues and challenges of the future, as in the case of a scanning exercise commissioned by the UK Collaborative on Development Sciences (UKCDS) on behalf of DFID in 2010, based on interviews with leading international development thinkers (see Rhydderch 2010).

2.4 The Rockefeller Foundation

The Rockefeller Foundation has established the Searchlight function, a programme of horizon scanning with a view to informing philanthropic decision-making. The foundation works with 12 partners which conduct regular regionally-focused scans across Asia, Africa and the Americas. According to Juech and Michelson (2012), the development and philanthropic sectors have generally been slow to adopt foresight

practices, lagging behind businesses and government, and the Searchlight function represents the first systematic trend monitoring effort in the philanthropic and broader social sector. The Searchlight function ‘demonstrates how the practice of anticipating and tracking trends and envisioning different alternatives for how global issues might evolve can be harnessed to shape the future of human development and to improve the lives of poor and vulnerable populations’ (*ibid.*: 439). One of the organisations collaborating with the Rockefeller Foundation is the Institute for Alternative Futures (IAF). In 2009, the IAF convened a workshop of leading foresight experts in Bellagio. The workshop report (Bezold *et al.* 2009) highlights the rationale and practice of *pro-poor foresight* – a term coined to mean foresight as applied for the purposes of human development – in accelerating and enhancing ‘smart globalisation’ and in gaining a better understanding of foresight in relation to a set of key issues that are relevant to the global South.

The Institute for the Future (ITF) played a major role in Rockefeller’s Catalysts for Change project, which was based on the premise that collaboration on a global scale can yield unique insights into ways to create a more prosperous, equitable future. The project sought to augment the diverse horizon-scanning exercises concerning poverty and social change by integrating bottom-up, crowd-sourced ideas for innovation, using a proper visualisation tool as a common language and framework (Vian *et al.* 2012: 451). To this end, a three-day global collaborative foresight game was convened which engaged with 1,600-plus people in more than 79 countries. In describing this exercise Vian *et al.* (2012: 466) observed, ‘Foresight and forecasting practices have their modern roots in elite institutions that often look at the future “from the outside in”. But in a world of high connectivity and increasing transparency of information, the capacity for participatory foresight practices “from within” has already changed the landscape of analysis and guidance of our complex global systems.’

3 Scenarios

Scenarios offer examples of possible futures, which are then used to explore how the world would change if certain trends were to strengthen or diminish, or various events were to occur. These scenarios can be used to review or test a range of plans and policy options; to stimulate the development of new policies, or as the basis for a strategic vision; and as a means of identifying ‘early warning’ indicators that signal a shift towards a certain kind of future. The Foresight HSC (2009) states that scenario planning is for medium- to long-term strategic analysis and planning; it describes scenarios as *narratives* set in the future.

Wright, Cairns and Bradfield (2013: 561) suggest that scenario techniques and methods range from quantitative modelling approaches to qualitative narrative methods, and mixed methods that encapsulate both. For example, the Institute for Security Studies (ISS) uses the International Futures (IFs) forecasting system to generate quantitative scenarios such as those presented in African Futures 2050 (Cilliers,

Hughes and Moyer 2011). A range of quantitative, qualitative and mixed method scenarios can be found among those generated by global foresight exercises and international assessments and those documented in the EEA's catalogue of scenarios in the environmental field (EEA 2011a).

Gordon (2011) classifies scenarios as either adaptive or normative. Adaptive (or future-aligning) scenarios are developed by organisations and institutions in order to ensure they are fit for purpose; this includes the use of scenarios as part of organisational strategic planning exercises, as well as country or regional-level long-term development planning and visioning. By contrast, normative (future-influencing) scenarios, also known as visionary scenarios, are used to influence and shape the future. There are a significant number of scenario sets in the public domain that relate to policy questions relevant to international development; however, their usefulness can be limited because of insufficient background information. The examples discussed below make use of narratives, developed as part of foresight initiatives conducted on a more modest scale, as compared to the large foresight studies associated with intergovernmental organisations.

3.1 Adaptive scenarios

There are examples of adaptive scenario use in bilateral agencies such as DFID as well as international non-governmental organisations (INGOs). According to Foresight HSC's Scenario Planning Guidance Note (2009: 5), 'DFID, the FCO [Foreign & Commonwealth Office] and the cross-departmental Stabilisation Unit have undertaken country and region-focused scenario planning to inform strategy and programmes, and to improve coordination.' Neil MacDonald facilitated scenario processes for DFID in Sudan, Iraq and Kosovo between 2002 and 2007 (interview, 7 April 2014). The Sudan scenario-building exercise was a collaboration between DFID, the FCO and the Ministry of Defence (MoD). It was well resourced, and it comprised a research phase, involving three or four researchers, as well as three days in Khartoum. The Iraq scenarios of 2007 were 'more typical' in resourcing terms; there was a research phase, and a workshop convened with UK government/DFID staff based in London. The Kosovo scenarios were done hurriedly and on a much smaller scale, with very little research input (*ibid.*). Scenarios have also been used by DFID Yemen and DFID Nepal to develop contingency plans (Foresight HSC 2009: 14–18).

DFID's 2008 draft guidance on country and regional planning states that scenario planning should be included as part of the Country Assistance Planning (CAP) process (DFID 2008). There is no evidence available on the extent to which these guidelines have been followed in practice. However, Foresight HSC (2009) provides two case study examples demonstrating ways in which scenario planning has been used for planning by DFID. The first example is DFID Bangladesh, which developed scenarios to 2020 to inform their new CAP. The two-month process was facilitated by external consultants; data were collected and analysed from

internal and external sources, interviews were conducted with external experts on Bangladesh (but no internal experts), and a two-day workshop was held. The second example is DFID Nicaragua, which led a scenario-planning exercise as part of their exit strategy, as a way to help the wider international donor community examine their policy engagement in the country. The three-month exercise involved international donors, representatives of NGOs and civil society, the private sector and academia. Nicaraguan experts were involved in the analysis.

There are other examples of scenario sets that have been commissioned by DFID, presumably to inform thematic priority-setting, such as Ballantyne, Curry and Sumner (2011) on the impacts of the financial crisis, and Pickens, Porteous and Rotman (2009) on scenarios for branchless banking. However, limited information is available on how these were conducted. The Outsights (2004) project presents scenarios for the very poorest from 2030: research papers were commissioned; 30 interviews were conducted with stakeholders from government, multilateral agencies, business, NGOs, the media and academia; and workshops were held.

MacDonald (2004) outlines CARE International's experience using scenarios in Sudan to clarify roles and objectives. With CARE International UK, a three-day workshop was facilitated, which included people from other NGOs, government and the media; journalists were included for their 'ability to grasp the bigger picture'. Scenarios were developed to 2023, against which they then assessed their strategic options. MacDonald notes also that planning has to shift from linear thinking to a creative and flexible response that is able to anticipate change early and respond. He concludes that whereas scenario analysis has been widely used by the private sector since the 1970s, the 'use of scenarios in development NGOs is still in its infancy and there is much still to learn' (2004: 119). Ramalingam (2012) argues that development and humanitarian agencies need to be agile in their response, and that this fits closely with the resilience agenda.

Literature on the application of foresight in the humanitarian sector is surprisingly scarce. *Humanitarian Horizons: A Practitioners' Guide to the Future* (Humanitarian Futures Programme 2009) presents trends and projections based on reports by leading thinkers in the areas of climate change, globalisation, demographics and changes in the humanitarian system. The authors advocate the need for humanitarian agencies to be forward-thinking and to manage risk more proactively, rather than being risk averse.

Many African countries have national planning commissions, and have used scenario building as part of processes to develop long-term strategies; examples include South Africa's Vision 2025, Kenya Vision 2030 and Namibia's Vision 2030. These initiatives reflect the broad consensus in Africa in the early 1990s that African nations needed to set their own agendas and anchor them in long-term visions driven

by African interests and demands (Martin-Breen 2014). According to Professor Alioune Sall, Director of the AFI, they have been keen to ensure that foresight exercises are conducted as much as possible in a participatory manner, in order to facilitate citizen participation in reflecting on and answering core questions such as: 'Where do we want to get to as nations?' (Ibrahim 2013). He goes on to say that 'Where our calls [for support] have been heeded, countries have been able to avoid the pitfalls of foresight exercises turning out to be another closed exercise led by technocrats talking to other technocrats; they have seized these as an opportunity to open and sustain a conversation on the past, the present and the future of the nation.' Arguably, this kind of scenario exercise starts to converge with the normative or visionary type described below.

3.2 Normative scenarios

Andreescu *et al.* (2013) suggest that normative foresight exercises result in scenarios in which there is a greater concern with the basic values, and procedural arrangements governing the future world depicted in the scenario. This is highly relevant in the example of scenario processes in East Africa facilitated by the Society for International Development (SID). SID was instrumental in initiating processes for the development of national scenarios in Kenya, Tanzania and Uganda, and also at the regional level, but the processes were designed to maximise ownership at local and national level. Heinzen (2004a) labels these scenarios as public interest scenarios, concerned with developing skills and opportunities for public dialogue, facing uncertainty through collaborative learning processes, and developing capacity for political agreement. According to Harcourt and Muliro (2004: 2), 'SID's own interest in exploring scenario exercises in Eastern Africa in the mid-1990s was driven largely by the fact that far-reaching structural adjustments were being undertaken in various countries with seemingly scant concern for long-term impacts and the choices that some of these adjustments would inevitably foster. The absence of broad-based dialogue on these key issues was one indicator (...)'. The South African scenarios (such as the renowned Mont Fleur scenarios – see Kahane (1992) and Gillespie (2004)) also provided inspiration (Muliro, interview 7 April 2014). Whilst the special issue of the journal *Development* (Heinzen 2004b) does not provide a detailed overview of the specific tools used as part of the scenario-building exercises, the articles do provide information on aspects of the process, and especially the public engagement dimension. The East Africa scenarios were not the first in the region, but their innovation was the active involvement of a wide cross-section of interests and stakeholders, through an ambitious public dissemination component.

The Kenya scenarios were a conscious attempt at participative policymaking, in an effort to provide an alternative to undemocratic governance. The exercise conducted from 1998–2000 comprised a research component, with a small grant from the British Council; five workshops convened every four to eight weeks; and an extensive

dissemination process. SID partnered with the Kenyan policy thinktank Institute of Economic Affairs (IEA) to support organisation of the events held in Kenya. The United States Agency for International Development (USAID) was the main donor of the process, with a grant of US\$200,000 to SID. The one-year dissemination process, which focused on use of the scenarios to catalyse dialogue, comprised two phases (Maina and Sivi 2004): the first targeted opinion leaders in the public sector, private sector and civil society; the second phase targeted the general public. The second phase was carried out through partnering with credible and respected community organisations; core roadshow activities included a series of participatory theatre workshops and presentations, as well as distribution of a research compendium (with the broad facts, data and arguments behind the scenarios, and what was driving the trends) and a 48-page booklet which laid out the four scenarios in story form. The scenarios were met with enthusiasm: ‘People wanted to listen, wanted to share their stories. Only in one place they were chased away by agents of the state. In other places they were sent to break up the meeting but ended up staying’ (Muliro, interview 7 April 2014).

4 Impact

Until recently there have been remarkably few evaluations of futures and foresight work (Slaughter 2009: 16; EEA 2011a; Havas *et al.* 2010: 97), and there is scant literature on appropriate evaluation frameworks. There is a general reliance on self-evaluation; and government foresight activities have generally been evaluated by the agencies responsible for commissioning the studies, or foresight practitioners (Milojević 2013).

The foresight literature provides plenty of examples of the challenges of embedding foresight studies in policy decision-making. Sagasti (2004: 1) notes the oft-observed challenge of linking ‘future-oriented exercises to the messiness and immediacy of political events and decision-making’, and in this respect foresight shares many common challenges with research more generally. It is difficult for policymakers to make the time; policymakers may not own the process; foresight studies generally consider the long-term future horizon, and this may be incompatible with short-term political thinking; and the implications of a foresight study may be unclear (Rhydderch 2013). Schultz (2006: 11) notes that horizon scanning’s design criteria do not augur well for its quick uptake and widespread dissemination in any evidence-based decision environment; for whilst research is expected to be authoritative, a horizon scan is necessarily associated with uncertainty.

Johnston (2010) notes that members of the International Foresight Professionals’ Network are under pressure to demonstrate the value of investments in foresight in consequent policy and planning. His foresight impact schema includes awareness-raising, informing, enabling, influencing and directing policy. Kuosa (2011: 22) considers tangible as well as intangible outcomes of foresight initiatives: given their interdisciplinary and multi-sectoral nature, foresight exercises often

behave as a 'knowledge junction' between different areas of research (EFMN 2009: 14), and impact in the form of improved networking and information flows should not be ignored.

The debates around the impact of scenarios are important because of their focus on transformational processes. The future is fundamentally unknowable, yet everyone holds implicit assumptions about the future, depending on their own mental model, based on experience and knowledge. By bringing together individuals operating within different paradigms, the worldview of any one individual or organisation may be challenged, and thus individuals' mental maps changed or expanded. This highlights the importance of acknowledging and exploring uncertainty through collective process. Wack (1985: 140), a pioneer of scenario planning, describes the transformational process: 'Scenarios deal with two worlds: the world of facts and the world of perceptions. They explore for facts but they aim at perceptions inside the heads of decision-makers. Their purpose is to gather and transform information of strategic significance into fresh perceptions. This transformational process is not trivial – more often than not it does not happen. When it works, it is a creative experience that generates a heartfelt "Aha!" from your managers... obliges them to question their assumptions...'. This kind of forward-thinking exercise with explicit consideration as to how the world will change may be compared to the collective design of a theory of change for international development policies and programmes, where a range of worldviews and assumptions may enrich the discussion and help to ensure that any strategy is ultimately more robust.

As in other applications of foresight, the evidence of use, usefulness and impact of foresight initiatives in international development are largely anecdotal. In the organisational decision-making context, MacDonald (interview, 7 April 2014) considers that a key outcome is greater resilience, such that individuals and organisations are better prepared to face uncertainty and 'to manoeuvre skilfully when life takes unforeseen turns', but acknowledges that actually measuring this presents a challenge. In the context of visionary public interest scenarios such as those developed in East Africa by SID, Heinzen (2004a) suggests that the creation of a new shared language can be the marker of successful scenario work; in the case of the Tanzania scenarios, one noteworthy aspect was that subjects previously considered taboo, such as donor dependence and the supposed unity of the country, became open discussion points when the scenarios were shared with the broader public (Eyakuze 2004). Heinzen also considers whether the foresight exercise led on to something else, as a measure of success (Heinzen, interview 31 March 2014); she offers anecdotal evidence of knock-on effects, explaining how individuals who were closely involved in (and transformed by) the process of developing the Kenya scenarios with SID subsequently played a key role in the national government-led visioning process, Kenya Vision 2030.

Given the non-linearity and complexity of policymaking processes, and the challenge of evaluating how any subsequent decisions and policies

actually affect different stakeholders, and especially the poor, perhaps it is better to focus on assessing the extent to which the level of futures literacy has changed among key stakeholders and decision-makers as a result of the foresight process.

5 Conclusions and future directions

Foresight initiatives have been conducted by a range of actors, in different thematic sectors, across different regions, on both a grand and a modest scale. Future-oriented studies are better established (and resourced) in certain sectors of international development, such as food and agriculture, whilst no evidence was found of foresight in relation to education in an international development context. There are interesting examples of *ad hoc* initiatives and processes, such as the East Africa scenarios supported by SID. Yet, for the most part, futures thinking has not entered the mainstream of international development in terms of the discourse and practice, and thus remains marginal to international development endeavour. This is hardly surprising, given that foresight is of itself a field still in its infancy. Whilst there are various repositories and databases of foresight studies and projects, there are none dedicated to international development initiatives *per se*. With the exception of outputs generated by the Humanitarian Futures Programme, literature on foresight in the international humanitarian field is scant.

Foresight certainly has an important role to play in international development, to ensure that policies are robust and forward-looking, and that development organisations and institutions are resilient and agile, able to cope with change and manage increasing uncertainty and complexity in order to tackle the global and local development and humanitarian challenges ahead. Futures thinking could be more effectively integrated into strategy planning cycles of international development institutions across the board and, in general, this would require greater futures literacy among international development actors. National-level policy thinktanks in Africa and elsewhere in the developing world have a particular role to play in supporting foresight studies, and promoting methodological adaptation and innovation in their various contexts. There is a great opportunity to harness rapid advancements in the field of information and communications technology (ICT) for crowd-sourcing and collective intelligence as part of foresight exercises, countering the more traditional top-down, expert-led approaches.

Notes

- * This article draws on Bingley, K. (2014) *A Review of Strategic Foresight in International Development*, IDS Evidence Report 94, Brighton: IDS.
- 1 The Millennium Project, funded by the UN University, UNDP, UNESCO and the US Environment Protection Agency (EPA), describes itself as an independent, non-profit, global participatory futures research thinktank that connects futurists, scholars, business planners and policymakers around the world to explore prospects for humanity as a whole.

- 2 Organisation for Economic Co-operation and Development.
- 3 <http://en.unesco.org/events/all-africa-futures-forum-transforming-africa%E2%80%99s-future> (accessed 1 August 2014).
- 4 Source: Foresight (2011).

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