UNITED NATIONS UNIVERSITY

UNU-INWEH

Institute for Water, Environment and Health

CONCEPT PAPER & CASE STUDIES

EXPANDING OUR UNDERSTANDING OF K* (KT, KE, KTT, KMb, KB, KM, etc.)

A concept paper emerging from the K* conference held in Hamilton, Ontario, Canada, April 2012

THE WORLD BANK

This page intentionally left blank.

Expanding our understanding of K (KT, KE, KTT, KMb, KB, KM, etc.)*

A concept paper emerging from the K* conference held in Hamilton, Ontario, Canada, April 2012

Louise Shaxson (ODI) with Alex Bielak (UNU-INWEH), and: Ibrahim Ahmed (General Department of Agriculture, Um Ruwaba, Sudan), Derek Brien (Pacific Institute for Public Policy), Bernadette Conant (Canadian Water Network), Catherine Fisher (Institute of Development Studies, Impact and Learning Team), Elin Gwyn (Ontario Ministry of Agriculture, Food and Rural Affairs), Laurens Klerkx (Wageningen University), Anne Middleton (Health Canada), Sarah Morton (University of Edinburgh), Laxmi Pant (University of Guelph), and David Phipps (York University)

Selected Case Study Authors: Andrew Clappison (CommsConsult), Andrew Dansie (UNU-INWEH), Leandro Echt, Vanesa Weyrauch (CIPPEC), Shahira Emara (GDNet Connect South), Elin Gwyn (OMAFRA), Nyokabi Musila (AFIDEP), Pierre Ongolo-Zogo (CDBPH), David Phipps (York University), Peter Taylor (IDRC), Bronwynne Wilton (University of Guelph): with Rachel Weaving.

ODI

UNITED NATIONS UNIVERSITY
UNU-INWEH
Institute for Water, Environment and Health

THE WORLD BANK

Key Partners

CANADIAN WATER NETWORK
RÉSEAU CANADIEN DE L'EAU

IDRC CRDI

Natural Resources Canada Ressources naturelles Canada
Canada

Financial, in kind and other support came from a variety of partners, without whose enthusiasm and vision we could not have proceeded. While all contributions were important, we particularly want to recognize the Key Partners in the Conference: The International Development Research Centre (IDRC), The Canadian Water Network (CWN) and Natural Resources Canada (NRCan). A full listing of the key partners, conference supporters, fellowship sponsors and community partners can be found on the K* conference website (www.tinyurl.com/KStarConference)

Acknowledgments

The K* initiative that has led to this concept paper benefitted from the unwavering support of Dr. Zafar Adeel, Director of UNU-INWEH, and the guidance of distinguished Steering and International Advisory Committee members.

Financial, in kind and other support came from a variety of partners, without whose enthusiasm and vision we could not have proceeded. While all contributions were important, we want to recognize the Key Partners in the Conference: The International Development Research Centre (IDRC), The Canadian Water Network (CWN) and Natural Resources Canada (NRCan). A full listing of the key partners, conference supporters, fellowship sponsors and community partners as well as Steering and Advisory Committee members can be found on the K* conference website (www.tinyurl.com/KStarConference)

The World Bank provided key support for the writing of this concept paper, and we would like to express our gratitude to Naoto Kanehira for facilitating and brokering the necessary connections.

We would like to sincerely thank the following individuals who contributed constructive commentary and advice during the draft stages of development of the concept paper: Helen Hambly Odame (University of Guelph), John Holmes (Oxford University), Sarah Michaels (University of Nebraska), Ricardo Ramirez (Communication Consulting), Jessica Sinclair Taylor (Overseas Development Institute), Richard Thomas (UNU-INWEH) and Dawn Woodgate (Economic and Social Research Council).

Particular thanks to UNU-INWEH staff members, Carrie Waluchow (for her work on the design and layout of the concept paper) and Furqan Asif and Jackie Yip, for their editorial contributions as the paper was being finalized.

A heartfelt thank you to Gary Kass (Natural England), Peter Levesque (Knowledge Mobilization Works), Dianne Russell (CanChild Centre for Childhood Disability Research), Craig Duncan and Sarah Wade-Apicella (United Nations Office for Disaster Risk Reduction, Knowledge Management Unit) for their supportive comments and their early adoption of the principles outlined in the concept paper in their respective areas of practice.

K Concept Paper - Foreword*

The knowledge field is expanding, with a burgeoning associated terminology. Apart from distinctions related to information and knowledge, terms including: Research Communication, Knowledge Mobilization, Brokering, Translation, Exchange and Intermediation, have gained currency in the past decade. The meaning of others has evolved, notably Knowledge Management.

Focusing on different terminology has masked one important point: that the actual functions described are all systemically related to each other and that the functions can provide real value in improving the efficiency, and accelerating the impact, of various initiatives.

K* (KStar) was coined as an overarching concept, and as a useful shorthand to collectively describe the various aforementioned terms. The first global K* conference was convened by UNU-INWEH in April 2012: it brought together key experts from across the world, and from different sectors, to: try and reach mutual understanding; stall the fragmentation of the knowledge field; and avoid potential serial re-invention of the wheel.

Authored by a subset of conference participants, this K* concept paper draws together collective learning from the diverse case studies discussed during the conference as well as the conference itself. It offers common language and sets out the principles shared by all K* component functions and processes. Along with associated conference outputs, such as the draft K* Green Paper, it also provides a strong basis to address the issues referred to above.

The draft of this concept paper was broadly distributed and discussed, including at two subsequent meetings related to Knowledge Management and Mobilization, one of which was organized by the World Bank. Consequently, it benefitted from an extensive crowd-sourced peer-review. An unexpected, and gratifying outcome was that a significant number and variety of organizations quickly began to use and refer to the concepts as they went about their business.

Although many different organizations are looking at K*, and placing increasing emphasis on knowledge management and other K* activities, they are doing so in very different ways with diverse approaches, budgets and motivations. In addition, K* functions are often dispersed across organizations, therefore it is difficult to draw causal links between the activities of K* practitioners and improved outcomes of initiatives. We hope the paper serves to underscore the importance of K* functions, whether formal or informal.

We encourage readers to take the concepts outlined in this paper and to apply them in their own contexts and organizations. They will be able to do so with the added benefit of knowing, and being able to demonstrate, that others are saying the same things, despite using different language.

Alex T. Bielak
UNU-INWEH

Christos Kostopoulos
World Bank

Louise Shaxson
Overseas Development Institute

Expanding our understanding of K (KT, KE, KTT, KMb, KB, KM, etc.)*

A concept paper emerging from the K conference held in Hamilton, Ontario, Canada, April 2012*[1]

Authors: Louise Shaxson (ODI) with Alex Bielak (UNU-INWEH), and: Ibrahim Ahmed (General Department of Agriculture, Um Ruwaba, Sudan), Derek Brien (Pacific Institute for Public Policy), Bernadette Conant (Canadian Water Network), Catherine Fisher (IDS Impact and Learning Team), Elin Gwyn (OMAFRA), Laurens Klerkx (Wageningen University), Anne Middleton (Health Canada), Sarah Morton (University of Edinburgh), Laxmi Pant (University of Guelph)

Selected Case Study Authors: Andrew Clappison (CommsConsult), Andrew Dansie (UNU-INWEH), Leandro Echt, Vanesa Weyrauch (CIPPEC), Shahira Emara (GDNet Connect South), Elin Gwyn (OMAFRA), Nyokabi Musila (AFIDEP), Pierre Ongolo-Zogo (CDBPH), David Phipps (York University), Peter Taylor (IDRC), Bronwynne Wilton (University of Guelph): with Rachel Weaving.

About this document: This report – produced with the valued support of the World Bank as a contribution to their thinking related to the Bank's second Knowledge Report - is one of the outputs of the K* Conference convened in Hamilton Ontario by UNU-INWEH, and Chaired by Alex Bielak with Louise Shaxson (ODI) as Vice Chair.

About the Case Studies: The World Bank selected a handful of representative case studies presented at the KStar Conference for further development. Authors (and colleagues) were interviewed to further flesh them out and the expanded versions are included as appendices to this report. The full complement of KStar Case studies can be found on the Conference website.

Suggested Citation: Shaxson, Louise with Alex T. Bielak, et al. 2012. Expanding our understanding of K*(KT, KE, KTT, KMb, KB, KM, etc.) A concept paper emerging from the K* conference held in Hamilton, Ontario, Canada, April 2012. UNU-INWEH, Hamilton, ON. 30pp + appendices

DISCLAIMERS

Copies are available from:
United Nations University – Institute for Water, Environment and Health (UNU-INWEH)
175 Longwood Road South, Suite 204 Hamilton, ON L8P OA1, Canada
Telephone: +1 905 667 5511 Facsimile: +1 905 667 5510
Email: contact.inweh@unu.edu
Internet: http://www.inweh.unu.edu

ISBN: 92-808-6036-4

1 tinyurl.com/KStarConference

Contents

Executive summary 2

Introduction 5

Case studies: K* in action 9

The concept of K* 11

Is K* a neutral process? 16

K*: moving knowledge inwards, outwards and between 17

How does the context for K* help shape the approach? 19

The importance of different contexts 19

Supply, demand and co-production of knowledge 19

Developing a strategy for investing in K*: what impacts could it have, or help to achieve? 22

Conclusions 25

Annex 1: the emergence of K* in developed world health research, and international agriculture . . 26

Bibliography 27

Case studies 31

Executive summary

K* is the collective term for the set of functions and processes at the various interfaces between knowledge, practice, and policy. K* improves the ways in which knowledge is shared and applied; improving processes already in place to bring about more effective and sustainable change.

There are a great many terms used to depict knowledge sharing activities. Terms such as knowledge brokering, knowledge translating, knowledge exchange, and knowledge mobilization are all used extensively, but the different terminology has hidden the fact that the actual functions they describe are all systemically related to each other. We need a broader concept that includes all the functions but recognizes their differences. In April 2012, a conference hosted by the United Nations University – Institute for Water, Environment and Health (UNU-INWEH) in Hamilton, Canada, brought together people from different geographies and different sectors who represented these different functions. The aim of the conference was to discuss their similarities and differences in the context of improving knowledge use in policy, industry and practice. K* (KStar) has been coined as the overarching concept, and as a useful shorthand.

No common language exists for K* practitioners to talk to each other across their different functions, sectors and geographies. The conference demonstrated that not only was this possible but it improved the sharing of experience and lessons. There are three outputs from the conference. This concept paper sets out the core concept of K* and the principles shared by all its component functions and processes. It also describes a framework for thinking about K*, which will make sharing approaches

Box 1: Some (loose) definitions of a few of the terms that make up K*: There are many competing definitions of the word 'knowledge'. In this paper we use 'knowledge' to include both explicit (codified, factual) information and tacit understandings of what that information means and how it can be used. Knowledge can be about both content and process, and can be held individually or communally.

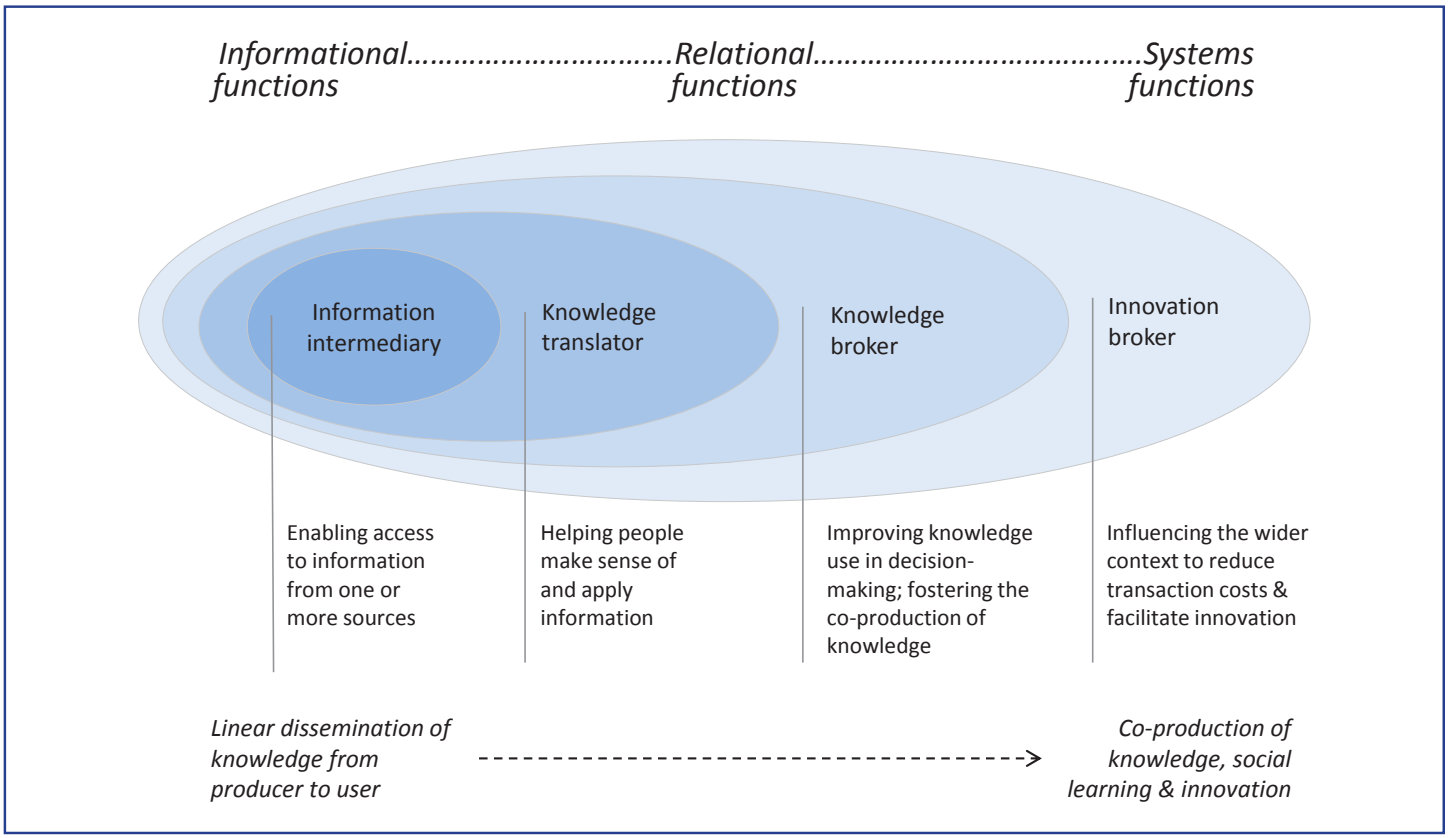
- ***Knowledge Management*** (KM): the process of ensuring that knowledge is available. It is sometimes used to describe the suite of activities from the storage of information through to its dissemination. However, with the emergence of other terms and greater differentiation between roles, it is beginning to refer more to the collection and storage of different types of knowledge so that they can be accessed when needed.
- ***Knowledge Transfer***: a one-way process of sharing knowledge which can be construed as more of a teacher-student relationship than other knowledge-related activities and perhaps associated with mutual exploration of an issue.
- ***Knowledge Translation*** (KT): the process of translating knowledge from one format to another so that the receiver can understand it; often from specialists to non-specialists. KT is sometimes represented as a one-way, and sometimes a two-way, process.
- ***Knowledge Exchange*** (KE) or ***Knowledge Translation and Exchange*** (KTE): a more two-way process of sharing knowledge between different groups of people.
- ***Knowledge Brokering*** (KB): a two-way exchange of knowledge about an issue, which fosters collective learning and usually involves knowledge brokers or 'intermediaries'.
- ***Knowledge Mobilization*** (KMb): a two-way process that makes use of the existing stock of knowledge and co-creates new knowledge to help foster change. The term KMb is most used by the Canadian network Research Impact, which helps translate/transfer university-based knowledge to help citizen groups.

There are many more terms (e.g. Knowledge Translation and Transfer, Knowledge Adoption Systems) which could come under the K* umbrella. The terms above are the most widely used across sectors and geographies. Note the boundaries between the definitions are fuzzy; for instance, KTE and KB appear to be similar in their emphasis on two-way sharing of knowledge and they are both contained within the definition of Knowledge Mobilization.

and lessons learned easier. It is not attempting to re-label people's work or regulate it, but to acknowledge what is already there, note the links and commonalities, and strengthen the practical and analytical basis on which it is practiced. The concept paper complements a draft Green Paper that begins to establish our baseline understanding of the global community of K* practitioners, and lists the extensive number of K*-related toolkits that are in use around the world. Finally, the conference participants form the kernel of a global network of K* practitioners who will continue to share experience and learn from each other.

Linear technology-transfer approaches to generating and applying knowledge may be appropriate in particular circumstances, but they may fail to realize the full benefit of knowledge. Knowledge activities do not simply provide a bridge between different 'worlds' that do not talk to each other. Instead, there is a set of functions that facilitate interaction among different groups of people, whether or not they belong to the same 'world' and whether or not they already talk to each other. Knowledge needs to be shared for various reasons depending on the context and the needs of the people and organizations involved. In some cases, what is needed is simply access to information, which can be facilitated by an information intermediary. In others, knowledge translation functions might be needed to help interpret complex information. Or, there may be a need for a more two-way function of knowledge brokering, which clarifies and shares different understandings of the same issue, bringing different types of knowledge to the table, building relationships between the producers and users of knowledge and helping to co-produce knowledge. Finally, what may be needed is a system-level function – an innovation broker – which reduces the costs of sharing knowledge (for example by ensuring funding is available) and allows the various groups of people to innovate in how they share knowledge and adapt what they do to the local context.

The boundaries between the different functions are fuzzy: it is not clear exactly when knowledge translation merges into knowledge brokering, or when an information intermediary becomes a knowledge translator. The different functions are best represented as a spectrum:



The K spectrum. Adapted from Fisher (2012) and reproduced in Harvey et al. (2012). This K* concept paper and the Harvey et al. (2012) paper were written simultaneously.*

Each of these functions can be associated with different roles: the presentation as a series of nested ovals makes an important point that they all share a common origin – enabling access to information from multiple sources. It does not mean that being an innovation broker is necessarily any 'better' than being an information intermediary: the choice of which functions to use depends entirely on the individual situation. The different functions are not mutually exclusive: most K* practitioners will be doing some of everything, though the emphasis will differ depending on the context and why the work is needed. However, it is clear that they are systemically related.

This framework helps to build an overarching understanding of how the different functions fit together; but does not specify whether they should be performed by organizations or individuals, as one-off projects or embedded in ongoing change processes, as part of an ongoing programme of work or separately and independently contracted. This is intended: there is no prior reason to assume that any K* function should necessarily be done in any particular way. Everyday interactions between people as part of their ongoing work are as important to understanding K* as that done by professionals: it depends entirely on the context of each issue. Ensuring that the enabling environment exists to allow these interactions to happen is an integral part of the innovation brokering aspect of K*.

Box 2: What obstacles do knowledge brokers, translators, exchangers, mobilizers, managers (…) face?

Prior to the K* conference, a survey revealed that participants faced challenges and obstacles in several areas: structural (e.g., infrastructure, funding, time, etc.), individual (perceptions, knowledge, skills, attitude, etc.), organizational (e.g., organizational/institutional culture, incentive structure, resource commitment, etc.), and network/system level obstacles (e.g., linear thinking on knowledge as resources that are produced by scientific establishments and transferred to policymakers and practitioners, less recognition of co-production of knowledge, particularly in partnership with less fortunate and vulnerable actors, etc.)

For more information see the full analysis prepared for the K* Green Paper

We recognize that it is not simply that the technology- transfer model has transformed: wider relations between knowledge producers and society have changed over the past half century[2]. How change has happened has varied and has given rise to different modes of operation at the interfaces between knowledge, practice and policy, which are explored in this concept paper. A series of short case studies from both developing and developed worlds demonstrates how different organizations work at the intersection of several different functions simultaneously. But context is important: contrasting the development of K* in international agriculture and health research in the UK and Canada shows that while both sectors are able to share current experiences and methods, some of the paths they took were different. It could be argued that international agriculture emerged from a more overtly political background, shaped by the participatory movement and a concern with power relations between donors and recipients of aid. Health research in Canada certainly has had a long tradition of behavioural based communication and knowledge mobilization, but without the heavy political overtones that characterized international agriculture. Assessing the political economy of knowledge will be an important part of developing K* strategies: this paper develops a speculative framework for understanding the degree to which this will influence the type of K* functions that are needed.

There are many different approaches to sharing knowledge, each with different names. It is important to recognize their differences while acknowledging that they are related: this will help people understand where they or their organizations fit into the bigger picture and how they could best relate to others to deliver better policy or practice. K* describes a concept but also a framework for analysis: this paper sets out this framework and in doing so begins to shed light on the underpinnings of this emergent field of study.

2 See, for example, the classic by Gibbons et al., 1994, *The new production of knowledge: the dynamics of science and research in contemporary societies*. London: Sage Publications.

Introduction

In April 2012, a global conference[3] was convened by UNU-INWEH[4] in Hamilton, Ontario, Canada, with the support of a number of partners. It brought together people involved in a range of roles that improve the use of knowledge in policy, practice and research; variously calling themselves knowledge brokers, knowledge translators, knowledge and innovation brokers, information intermediaries, knowledge transferors, knowledge exchangers, knowledge mobilizers, knowledge managers and many more (see Fig 1). Some were people from specialist organizations, some had the title in their job description, and others do it as part of their ongoing work, for example they might be based in the communications department of an organization. But all have a particular interest in understanding how to improve the ways knowledge is sourced, transmitted, interpreted and used to bring about change.

Participants came from different sectors (water, health, education, agriculture and over a dozen others), worked with different groups of people (policymakers, civil society organizations, researchers, practitioners…) and in many different countries (the Pacific islands, Canada, Ghana, Zimbabwe, Mauritius, Japan, Argentina, the UK, the US, France, Canada…). 60 people participated in the face to face meetings, 120 others joined via Webex from 40 countries. It was the first time these individuals had been brought together specifically to discuss their similarities and differences in the context of improving the field of knowledge use. The aim of the conference was to find out what they had in common, where the differences lay, what techniques they and their organizations employed to make better use of knowledge and whether there was sufficient overlap among what they were all doing to justify establishing them as a larger functional community of knowledge practitioners.

This short paper represents the beginning of a process to knit together the threads of experience and expertise that comprise what we call K* (KStar). It has a dual purpose:

- To elucidate the core principles shared by K* component functions and processes
- To suggest an overarching framework for thinking about K*, which will make it easier to share approaches and lessons learned

It is not intended to set out the state of the art. There has been a great deal of interest in the various issues we include in K* so instead, the paper is an initial concept note drawing on different bodies of knowledge from around the world, from the literature, and from emerging thinking in e-discussions and the internal documents of various organizations. Co-authored by a small group of people who attended the conference, it complements the work presented in the draft Green Paper[5]; outlining the various approaches that have been taken across sectors and geographies, and summarizing the different toolkits they use to better produce, interpret and share knowledge.

How knowledge contributes to progress (how successfully the different functions are able to contribute knowledge to strengthen the decisions that contribute to progress) is largely driven by identifying and addressing what is needed, what is missing, who has it, what form it is in and how accessible and timely it is. Different people and organizations play various roles and perform diverse functions in decision-making processes. The conference tried to develop a common understanding of these different roles and functions, both by those who practice it and those who are impacted by it.

3 www.tinyurl.com/kstarconference
4 The United Nations University – Institute for Water, Environment and Health.
5 www.inweh.unu.edu/River/KnowledgeManagement/documents/KStar_Draft_Green_Paper_Outline_April5v4_FINAL.pdf

Introduction

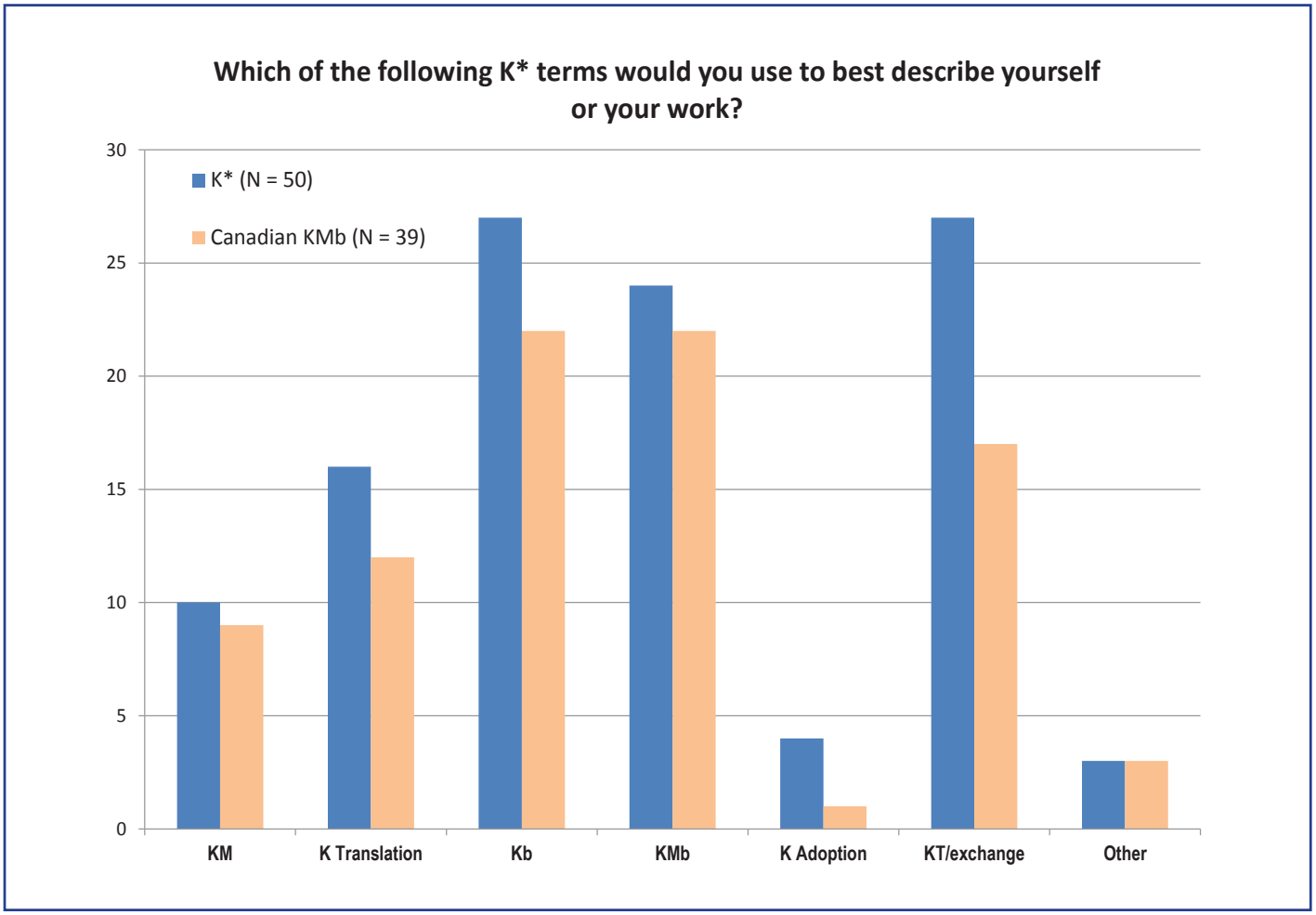


Fig 1: How attendees at two conference perceived themselves (K conference and the subsequent Canadian Knowledge Mobilization conference, http://www.kmbforum2012.org/). From left: knowledge management, knowledge translation, knowledge brokering, knowledge mobilization, knowledge adoption, knowledge transfer/exchange, and other. Note that many people considered they played more than one role.*

The list of people and organizations interested in what we term K* is very diverse: from practitioners to researchers, government to the industry, in both developed and developing countries; and from many different fields of academic study each with its own sectoral focus (agriculture, health, water, environment, education etc.). There has to date been a patchy dialogue among the groups working on the different knowledge functions and little lesson learning between them. There have also been few specific analyses of the histories of the individual functions. While most academic papers will offer a brief description of where a particular term emerged, there have been few analytical overviews[6] that describe the history of all the functions within the K* umbrella across countries and sectors. While the reason for this patchy dialogue may be partly down to different terminologies, history is also important; it shows why we have reached where we are today, and a comparative history can bring out gaps in our understanding. A detailed analysis is beyond the scope of this paper, but a brief overview of two sectors in different parts of the world shows that while these groups have reached similar understandings of what K* comprises and what it delivers[7], the routes they have taken have given rise to quite different experiences.

6 Though see Estabrooks et al., 2008: http://www.implementationscience.com/content/3/1/49

7 Without a serious study it is impossible to determine whether there has been significant crossover via the literature (health systems people reading the agricultural knowledge systems literature, for example), whether there have been seminal texts which all groups have referred to (Freire's writing on pedagogy, for example), or whether ideas have simply emerged from experience. In our experience, if this has occurred it has not been done systematically, or at more than a cursory level.

Introduction

Box 3: The context in which K* evolves makes all the difference: comparing and contrasting K* in developed world health research and international agriculture

Broadly speaking, the various K* functions have emerged from a dissatisfaction with the limitations of the linear 'knowledge transfer', let alone the 'broadcast', approach. In the former, there is a two-way flow of information while in the latter there is no expectation of anything except a one-way flow of knowledge. However there are subtle differences between how different approaches to K* have evolved in response; to understand this, it is useful to look at two different sectors in the developed and developing world: health research and international agriculture respectively.

It is possible to characterize the history of health research in the UK and Canada as moving from getting the best evidence (1970's and 80's) through getting the best evidence to the right people (1980's and early 90's) to its current emphasis on involving research users (citizens, practitioners) and policymakers in assessing health technologies and services. This short synthesis may mask the work done on behavioural communication and knowledge mobilization that has happened in the past few decades, but the point is to note the emergence of K* from a focus on robust evidence. In contrast, international agriculture has had a much more overtly political history: moving from the politics of grassroots movements through local participation, indigenous knowledge and collective learning to its current work on strengthening autonomous capacity and capability for managing and sustaining progress. This is not to say that international agriculture did not focus on the robustness of research results – far from it, there were many different scientific organizations working on communicating scientific knowledge. Nor does it imply that there were not people working in the health and public sector who were concerned with the politics of knowledge[8]: but in terms of pushing the boundaries of what we term K* functions, the path taken by the international agricultural community was more overtly political than the health research community in the developed world.

A more detailed analysis is given in Annex 1.

However, this is emphatically not just a terminology debate. As practitioners dedicated to the field of improving knowledge use, we know it is paramount to improve the clarity in communication of ideas and intents. We recognize that terminology is important – because discussing what we mean by different terms helps us to uncover our different approaches and worldviews – but in previous discussions on the Knowledge Brokers' Forum (KBF) and at the Canadian Science Policy Conference in Canada in 2010[9] there was little appetite for trying to standardize the terminology that people were using – indeed it was felt important that people should be free to adapt the terms they used to describe themselves to the specific contexts they were working in and issues they were working on. The way different fields have evolved has led to certain interpretations being applied to certain terms in one sector rather than others, even though the challenges they face are similar (see Box 2). In this sense, we could argue that the debates around knowledge are about more than terminology; they are often about the perspectives that people bring to the work that they do, and the paradigms that they work within. Our belief is that while it is important to acknowledge that these differences exist, there is in fact more in common between the perspectives and paradigms than is often credited.

8 Research into public services more generally started with a 'what works' agenda, but has moved towards considering broader questions about 'how it works, when where and why' which implies a broader dialogue and a more complex and interactive relationship between research, policy and practice. For example, there is a tradition of political interaction within some social research areas, particularly poverty, community education, and research with young people.

9 Canadian Science Policy Conference, where the term K* was first coined at a special workshop on knowledge translation and brokering. See http://www.inweh.unu.edu/River/KnowledgeManagement/documents/AcrobatDocument_006.pdf

Box 4: Communication for Development

'Research Communication' is closely linked to and embedded within K*. Defining the terminology and the role of research 'communications' and 'uptake' has been a critical debate in itself, and the body of literature on this subject is wide and varied[10]. The 2006 First World Congress on Communication for Development, hosted by the FAO, World Bank and the Communication Initiative in Rome, is an important example. The conference brought together more than 900 people working in this field around the globe to focus on key issues and questions around 'communication' and put forward arguments for placing it more centrally in development policy and practice[11]. In the last few years, visibility and growing emphasis of communication and uptake across the sector has had some notable impact. The Department for International Development (DFID) of the UK, for example, established a policy of 10% minimum spending on communication activities within Research Policy Consortia (RPC) (Hovland et al. 2008). DFID has now also chosen to focus more on 'research uptake' rather than 'communications' to highlight the active nature of the process and move away from any connotations with public relations or marketing[12]. The area continues to evolve: most recently, the September 2012 edition of the Institute of Development Studies (IDS) bulletin[13] explored the unresolved nature of the politics and practice of research communication and attempted to map its complex picture.

Instead of exploring the discrepancies between the different worldviews, this paper instead focuses on where the similarities occur, looking at the different functions performed by both individuals and organizations at the interfaces between knowledge generation/gathering and its uptake in practice, industry and policy and recognizing that these may well change over time. The umbrella term K* was coined to recognize the differences between the functions yet make it clear that they are all systemically linked. The key thing to bear in mind is that the K* function is important because it represents a set of core principles that underpin a diversity of methods employed in a diversity of contexts.

10 Quarry and Ramirez (2009), Communication for another development, for an overview

11 See the full report, The International Bank for Reconstruction and Development / The World Bank (2007) Lessons Challenges and the Way Forward

12 Adolph et al. (2010) for more detailed analysis of 'research communications' and 'research uptake' definitions and strategies

13 Harvey et al. (2012), 'Is development research communication coming of age?'

Case studies: K in action*

A variety of case studies were presented at the K* conference; from both developed and developing countries, across different sectors. They covered a range of contexts and operate at a range of scales – from 9 municipalities in a Canadian province to a global initiative that aims to strengthen think tanks in Latin America, Asia and Africa.[14] :

AFIDEP, the African Institute for Development Policy, has been translating and communicating research-based knowledge on Sexual and Reproductive Health (SRH) for policymakers and other stakeholders in southern Africa; to help them mobilize resources and improve decision-making around family planning. Having identified policymakers' needs for research evidence, the AFIDEP project documented lessons on the drivers of increased contraceptive use in several different countries, compared them with the experience of countries where contraceptive use has stalled, disseminated this information via its own networks and at regional meetings. AFIDEP also organizes more focused briefing meetings as necessary, identifying champions in government who can then become advocacy partners for improving SRH outcomes.

In Argentina, the Center for the Implementation of Public Policies Promoting Equity and Growth ***(CIPPEC)*** and Global Development Network ***(GDNet)*** have formed a six-year partnership to improve the links between research and policy-making by strengthening the capacity of policy research institutes in Latin America, Africa and Asia to influence public policies. As well as providing various types of training, the project is formalizing and expanding communities of practice comprising both researchers and policymakers committed to improving the use of research in policy-making. The project does not involve itself in particular policy issues, but focuses instead on building the capacity of researchers to influence policies, and building the capacity of policymakers to make use of evidence. It does this through organizing online courses, discussion forums, face to face workshops, facilitating peer exchanges and participation in regional meetings. The project began in Latin America, but expanded to Asia and Africa in 2010 to increase south-south learning and the sharing of experience around strategic planning, communications, fundraising, programme management, network development, monitoring and evaluation, and policy influence.

OMAFRA (the Ontario Ministry of Agriculture, Food and Rural Affairs) and the ***University of Guelph*** in Canada have developed a ten-year partnership through which the university will receive support for a research programme that meets many of OMAFRA's varied science needs – based on research priorities identified through OMAFRA's research advisory network. In conjunction with this partnership, funding was set aside to establish a Knowledge Translation and Transfer (KTT) programme which involves networks, a funding programme, and resources such as knowledge managers. The Agri-Food and Rural Link is a hub for KTT at the University of Guelph, which works with a variety of stakeholders including the food industry, rural communities and emerging bioproduct value chains; as well as farmers, vets, public health workers, and Ontario policymakers.

IW:Science is a global project that aims to enhance the use of science in the International Waters projects of the Global Environmental Facility. Implemented by the United Nations Environment Programme and executed by UNU-INWEH, it is designed to help strengthen priority setting, knowledge sharing, and results-based adaptive management by fostering collaboration among a wide variety of global partners; each of which bring thematic institutional expertise. The project reviewed, analysed, and synthesized the science behind 20 years of projects on international waters, similar to the approach used by the International Panel on Climate Change (IPCC). Underpinning this process was a technology platform developed as a powerful and user-friendly knowledge management system.[15]

14 This is a selection of the case studies presented at the conference (note that the Think Tank Initiative (TTI) was subsequently added at the request of the World Bank, to round out the analysis). The full list of case studies is available on the conference website.

15 http://projects.csg.uwaterloo.ca/inweh/

Case studies: K in action*

Based in Cairo, ***GDNet*** is the knowledge service for the Global Development Network: it was set up in 1999 to provide financing and networking opportunities for southern researchers and an online repository to help them share their work more easily. Working with 7 regional network partners, GDNet is moving away from being simply a knowledge hub to taking on more brokering-type roles. It does this by helping southern researchers to ensure that their findings reach as wide an audience as possible; linking institutes and researchers in developing countries, providing them with channels to communicate their research, strengthening communication capacity and enabling southern researchers to access global knowledge (through online journals and datasets), finding funding opportunities and engaging in policy debates.

The ***Think Tank Initiative*** (TTI) is a multi-donor funded ten-year initiative which provides more than 50 think tanks in 23 countries across the developing world with stable funding so that they can attract, retain and build local capacity for policy-relevant research, develop independent research programmes and invest in outreach to improve the impact of research in policy debates. The TTI selected a group of promising independent policy research organizations using a competitive tender process and provided support in the form of renewable grants. The initiative also helps the organizations identify their own areas for improvement, provides access to training and technical support, and via a series of workshop and other events, improves their ability to capture and share learning between them.

The ***Centre for Development of Best Practices in Health (CDBPH)*** has facilitated the implementation of Cameroon's Health Sector Strategy (HSS) by improving the environment for evidence-informed decision-making around health sector reforms. In a three-year project, the Centre sought to foster the use of strategic information and research-based evidence; and to provide stakeholders with the skills to use evidence in supporting the reform programme. In particular, it worked to strengthen the ability of the Technical Secretariat of the HSS Steering committee to demand, access, assess and use strategic information; built local human capacity to identify and use evidence in the decision-making process, and collected and filtered relevant evidence to develop policy briefs on various issues. The Centre also collected, packaged and disseminated evidence widely to key stakeholders, organized deliberative forums and built stronger local ownership of policy options.

York University's Knowledge Mobilization Unit was set up in 2006 to help enhance access to research and academic expertise to inform decisions about public policy and professional practice across the York region of Ontario, Canada. The NGO United Way of York Region (UWYR) provides funding for civic engagement, community building and leadership; as part of this it invests – together with York University – in the KMb Unit as it seeks to broker relationships between academics and civil society organizations (over 90 such collaborative relationships have been brokered in the past 6 years). In its initial stages the KMb unit simply acted as a gateway between UWYR members and university professors, helping them to build community-university collaborations. Recently, however, it has worked with graduate students to help UWYR develop and invest in citizen-led approaches to address the needs of local communities.

*The concept of K**

Early efforts to share knowledge were often dominated by technical experts who simply sought to transfer what they knew to others, with little interaction with the recipients to check that they understood and were able to apply it. This became known as the linear technology-transfer model: the thinking that characterized it was that any knowledge activities that were needed would provide a bridge between two worlds that did not communicate with each other – for example, research, policy and practice. A technology transfer model of K* would put it between these two worlds, as in Fig 2. However, this provides a poor model to help us understand the actual scope and nature of K* activities as it gives rise to the idea that the person or organization 'doing' K* needs to exist separately: the case studies clearly demonstrate that this is hardly ever the case. Instead, K* describes a set of processes that facilitate the interaction between those different worlds. Whether or not they already talk to each other, or whether they need outside help to make it happen or enhance that activity, the processes are similar.

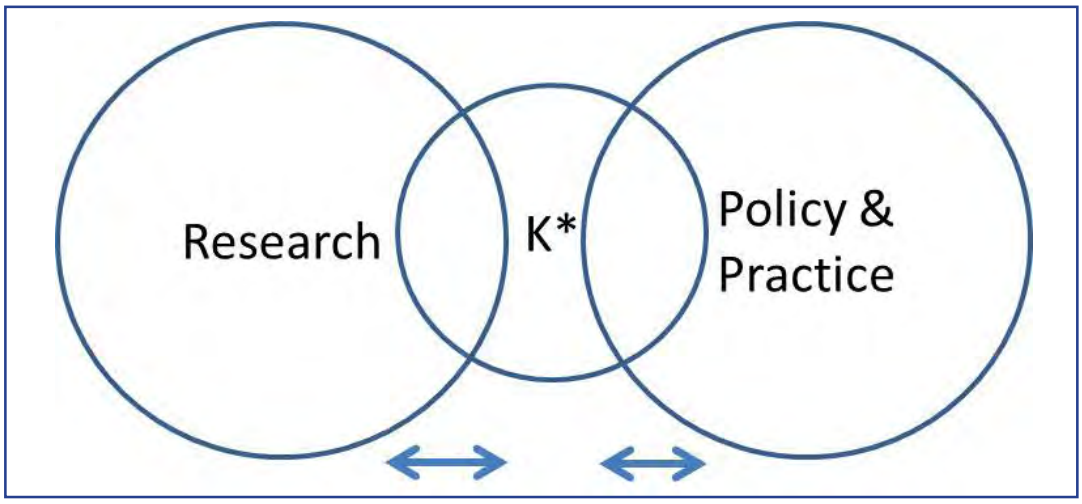


Fig 2: The linear technology-tranfer view of how K would link research to policy and practice. As the case studies show, this is an old-fashioned view: K* is far more than just a bridge.*

K*, as defined here, describes the functions that need to occur to share knowledge between different groups of people, to enable change to happen. Knowledge needs to be shared for various reasons, depending on the context and needs of the groups of people involved. It could be that what is needed is a simple one-way process of knowledge translation (KT) to allow non-specialists to understand the key points of a research article – such as AFIDEP's work to produce policy briefs on sexual and reproductive health for African policymakers. Or, what may be needed is a more complicated and iterative two-way process in which knowledge brokers (KB: such as those at York University in Canada) work to clarify and share the different understandings of an environmental issue held by citizen groups, industry and policymakers – clarifying what particular pieces of evidence mean to all groups involved – to help make policies that respond to citizen needs for a clean environment while also supporting economic growth. Whether the groups need outside help to talk effectively to each other or whether they do already communicate, the set of processes which comprise K* are – we have discovered – very similar and all are targeted at enabling progress to be made.

However, K* is not about simply improving the 'linking' of any two given worlds that are not interacting effectively (for example, the ongoing challenge of informing the policy 'world' by the science 'world'). The purpose of K* would be to draw knowledge into an organization, share knowledge between people, disseminate it outwards or co-produce knowledge – alone or in combination. For any of this to happen there needs to be at least two things in place: K*-skilled people who understand which of the different functions that comprise K* should be used, when they should be initiated, how they should be sequenced; and a supportive environment. For any K* approach to be successful it needs to be supported by systems and approaches that value it; (for example, sufficient management support to ensure that funding is available for K* activities, as provided by the Think Tank Initiative). Conversely, without skilled professionals who are able to spot the opportunities and navigate the sometimes choppy waters of multi-stakeholder, multi-cultural discussions, a supportive and well-resourced system is likely to perform poorly and lose the confidence of those involved.

The concept of K*

Reflecting the structural, individual, organizational and system challenges that conference participants face (as outlined in the introduction); Fig 3 shows a simple, stylized representation of four 'worlds' (Science, Policy, Industry and Civil Society) and how they interact and the contribution K* makes[16]. This gives a more holistic view versus Fig 2, as it shows that the processes that comprise K* can both facilitate the communication between these different 'worlds' and work to improve the external environment so that those worlds can continue to talk to each other and sustain the flow of knowledge without the presence of a dedicated intermediary. A key part of K*, then, shapes the innovation system to allow all the other different processes to happen; ensuring that the incentives for knowledge sharing exist and that they do not privilege any particular group over another.

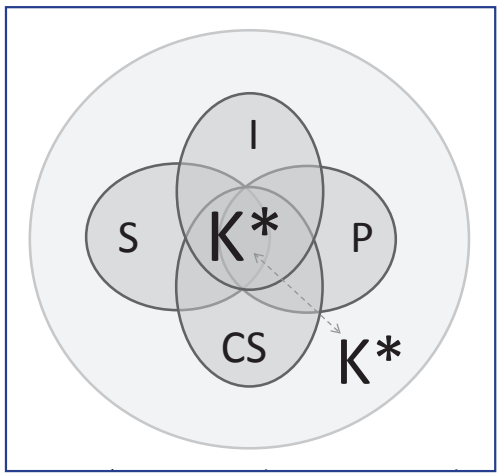


Fig 3: K encompasses the system, not just the inter- and intra-organisational processes*

It is this analysis that gives rise to our definition of K*: **the collective term for the set of functions and processes at the various interfaces between knowledge, practice, and policy. K* improves the ways in which knowledge is shared and applied; improving processes already in place to bring about more effective and sustainable change.**

In some contexts K* functions may be done by a specific organization or individual working in one of the 'worlds' or in between the two. In others, progress may best be achieved by influencing the wider social and institutional framework, for example, to fund K* activities as a specific part of a project or programme: funding the arrows, as well as the boxes in Andrew Campbell's memorable phrase[17]. This emphasis on the functions of K* rather than the type of organization or individual who should perform them, is key to our analysis. An in-depth discussion on the Knowledge Brokers' Forum summarized by Catherine Fisher[18], distinguished a spectrum of K* functions (Fig 4):

- An ***informing function***: creating, collecting, codifying, storing, and communicating ideas and information over time and across different geographies – to make it more accessible and usable
- A ***relational function***: improving relationships between the various actors around an issue; to enable co-production of knowledge and genuine dialogue, taking into account the power dynamics between all those involved
- A ***systems function***: working across a whole system to enable change (possibly working on multiple functions simultaneously) to ensure that there is a good institutional environment for sustainable innovation.

16 Fig 3 emerged from the K* conference, but Gary Myers has – separately – drawn a similar diagram, at http://kmbeing.com/2011/01/05/the-difference-between-km-knowledge-management-kmb-knowledge-mobilization/

17 Campbell & Schofield (2006) who point out on page 10 that 'diagrams of organizations and systems usually attach dollars to the boxes, not to the arrows between them.'

18 Fisher (2012)

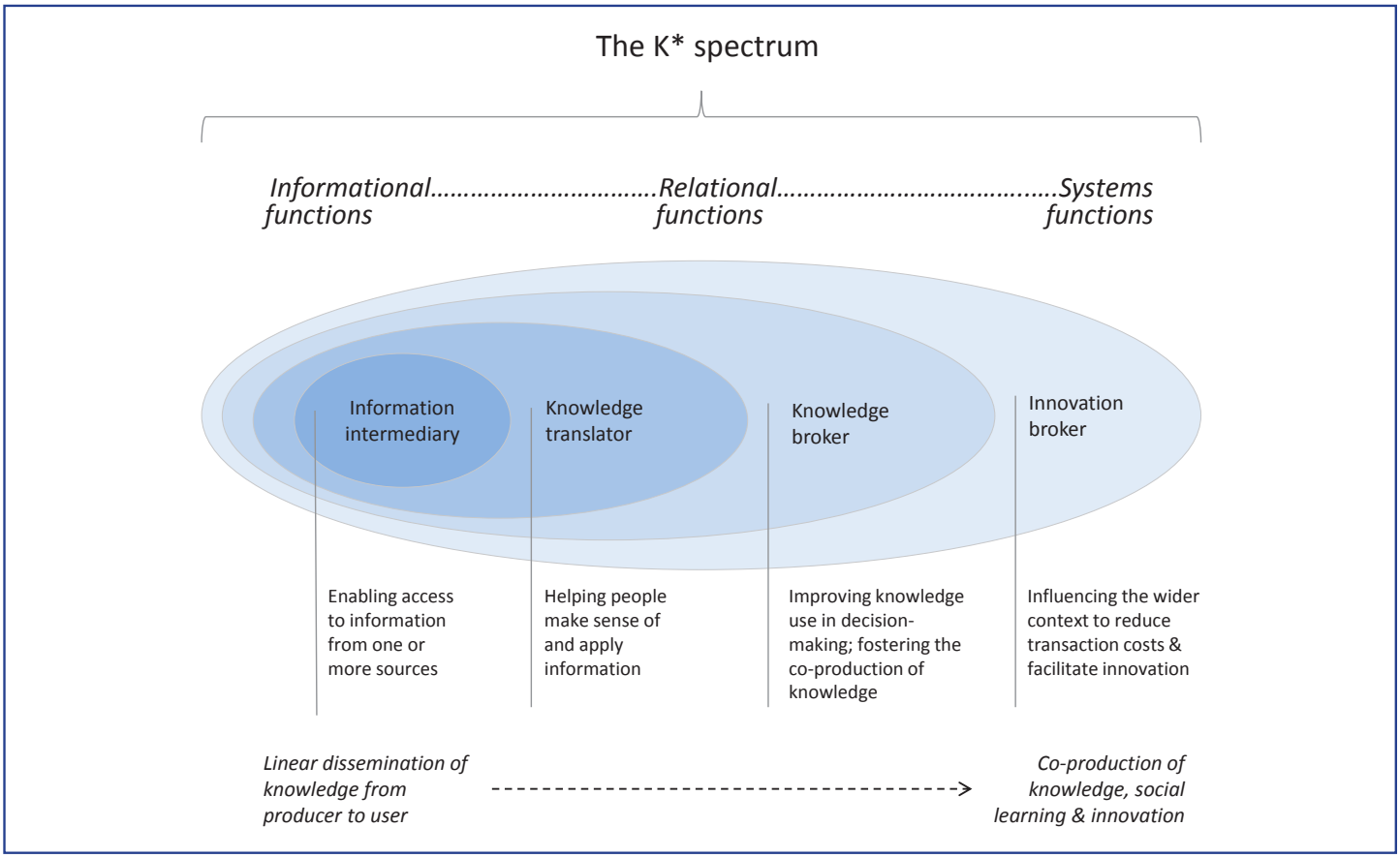


Fig 4: The K spectrum. Adapted from Fisher (2012) and reproduced in Harvey et al. (2012). This K* concept paper and the Harvey et al. (2012) paper were written simultaneously.*

Each of these functions can be associated with a series of roles, as Fisher points out:

- ***Information intermediaries or "infomediaries"***: concerned with enabling access to information from multiple sources and engaged in informing, aggregating, compiling and signalling information (such as the IW: Science project[19])

- ***Knowledge translators or knowledge intermediaries:*** concerned with helping make sense of and applying information and engage in disseminating, translating and communicating knowledge and ideas (such as AFIDEP's production of policy briefs);

- ***Knowledge brokers***: concerned with improving knowledge use in decision-making and engaged in bridging, matching, connecting, convening, linking, boundary spanning, networking and facilitating (such as the knowledge exchange events run by the Ontario Ministry of Agriculture, Food and Rural Affairs[20]);

- ***Innovation brokers***: concerned with changing contexts to enable innovation and engaged in negotiation, building, collaborating and managing relationships and processes (Fisher, 2012, p10) – such as GDNet's network of southern researchers. [One reviewer suggested that the term system-level enabler might be a more descriptive one than innovation broker. This certainly merits further discussion, although for now we have retained the original as it was the subject of considerable discussion during the K* conference]

19 http://projects.csg.uwaterloo.ca/inweh/
20 http://www.uoguelph.ca/research/omafra/partnership/KTT_Program/Events/KTT%20Day%20Feb%202011.shtml

Fisher makes three other points in relation to these definitions. First, a person or organization described as an intermediary is seen as being less directly engaged in change processes than someone described as a broker: the notion of brokering implies a two-way relationship between those producing and those seeking knowledge. The broker is not involved in either the production or use of knowledge, but instead seeks to help stakeholders 'answer their own questions and act based on the best possible knowledge and information.' (ibid). Second, she notes that people or organizations seeking to deal with information have a narrower scope of activity than those dealing with knowledge (knowledge implying the use of information to bring about change within a certain context); and finally, she observes that knowledge has a narrower scope than innovation.

The boundaries between the different functions are fuzzy, and the choice of which exact terms to use will vary by sector and context. The online discussion that led to the generation of this diagram concluded that trying to come to consensus on precise terminology to describe the different functions was less important than developing this overarching understanding of how they all fit together.

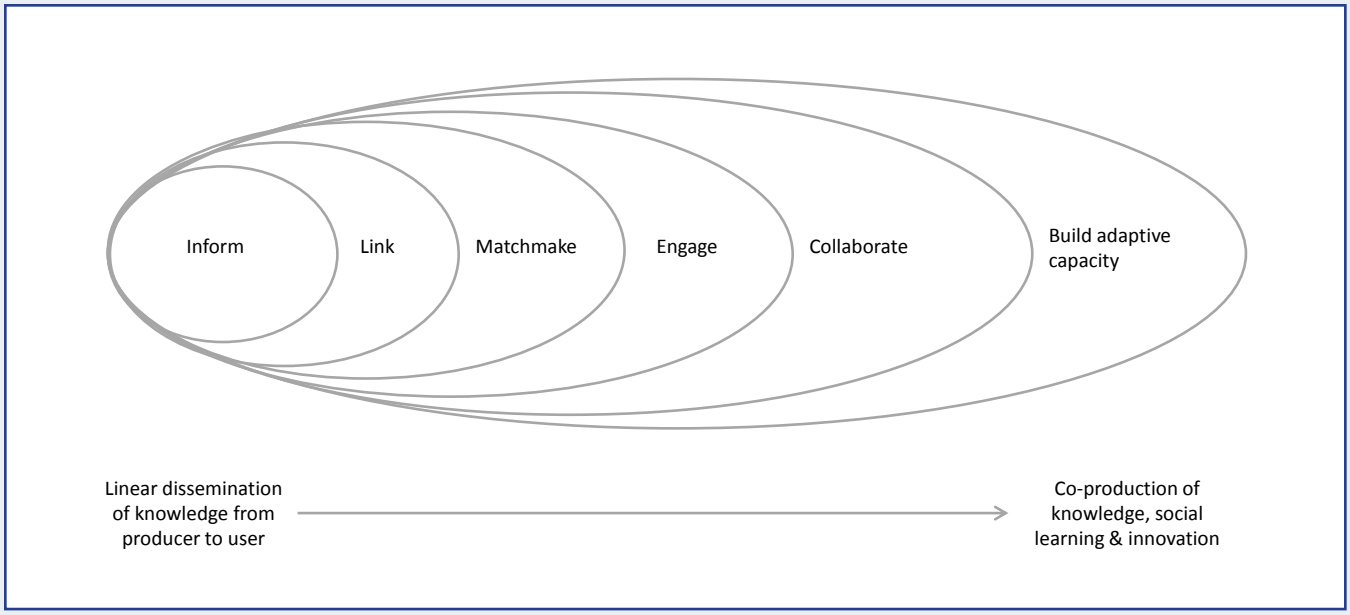
Presenting the functions as a series of nested ovals (Fig 4) makes the point that there is a common origin for all of them: enabling access to information from multiple sources. There is no linear progression between the different functions and no hierarchy in terms of which one is 'better'. Instead, each encompasses aspects of the other – they are systemically related[21]. This is the key point about the K* framework: Knowledge Brokering (KB) and Knowledge Translation (KT)[22] both share the need for the informational function, but KB has more of the relational function than KT. And an Innovation Broker works with relationships – as a Knowledge Broker does – but is more broadly concerned with influencing the parameters of the system to enable innovation to happen.

21 Collins and Ison, 2006, p12, Michaels (2009)

22 KT implies a one-way process translating knowledge that has already been produced into a more accessible language so that it can be provided according to the recipient's preferred format, time scale, and be used (generally, translating specialist knowledge for non-specialists). Understanding what users want does not make this a two-way process; it is simply good practice in audience targeting (Adolph et al., 2010). KB, on the other hand, implies that the potential users of the knowledge are able to input their ideas about what is important and so shape the information that is presented to them.

Box 4: Other interpretations of K*

Based on work done by Michaels (2009), Jones et al. (2012) set out six different functions which were used as the basis of the K* framework:



The six functions set out in Jones et al. (2012) are:

1. Informing: the simple dissemination of knowledge from producer to consumer (e.g. Knowledge Translation). The information element outlined above is implied in this, though not stated.
2. Linking: linking knowledge producer to knowledge user around a single issue, or within a single discipline (e.g. economics).
3. Matchmaking: expanding the linking function to bring in knowledge from across disciplines or across issues. The emphasis here is on putting together people who would not otherwise meet.
4. Engaging: framing issues inclusively, more actively engaging the potential users of knowledge in describing the issue
5. Collaborating: formalizing the engagement process so that relationships begin to build, fostering deeper understanding on both sides
6. Building adaptive capacity: strengthening institutions so they are able to address multiple issues simultaneously.

Since the diagrams from Fisher (2012) and Jones et al. (2012) were developed concurrently (for different purposes), there is a close correlation between them. In fact, they are complementary: while the Fisher diagram places more emphasis on the full range of K* functions and perhaps gives the better strategic framework, the Jones et al. diagram may be more useful in thinking through what specific activities might be needed and when – for example, when designing a project or programme with significant K* elements. What is important is that both see the range of functions as being nested within each other, and that both recognize that at the systems level, the set of relationships being supported by the various K* functions are much wider than just those between knowledge producers and knowledge users.

Is K* a neutral process?

In his book *The Honest Broker*, Roger Pielke talks about the 'honest broker of policy alternatives' as a person (or more commonly a set of experts) whose role is to expand the scope of choices for decision-makers, particularly where there are conflicting values, by creating options that allow for political compromise.

But K* -- whether done by someone as part of their job or by a separate individual or organization – cannot be a completely neutral process. Understanding what compromises may be necessary, and influencing the power relations between different stakeholders, are inherent parts of the different functions. Jones et al. (2012, p130) note that "judgements about what knowledge to use and when are often fairly deeply embedded within assumptions about the validity of (different types of) knowledge, its interpretation in light of current events and the relative power of those producing and using it… this means the knowledge interaction process is not simply one of neutral facilitation".

Similarly, innovation is not a linear process of diffusing things and ideas developed by scientists: instead it is a collective process that involves the contextual re-ordering of relations in multiple social networks involving 'hardware', such as new technical devices and practices, 'software' such as new knowledge and new modes of thinking, and 'orgware' such as new social institutions and forms of organization[23]. Further, much of this K* work takes place during the course of everyday life, not necessarily at staged events designed to foster communication and collaboration (ibid). This means that informal everyday interactions among different groups are equally, if not more, important than the efforts of K* professionals. At the system level, K* is about ensuring that the wider knowledge system helps foster these interactions and encourages those which promise most for delivering desirable change.

On the KBF e-discussion, Laurens Klerkx observed that 'change requires a position'[24], indeed, any agenda implies working towards something that is different from the status quo. The way the wider innovation system is structured and the dominant discourse around an issue will implicitly encourage innovation in certain ways, particularly if the tolerance for failure is low.

Even infomediaries are not neutral: the choice of what knowledge to collate, curate and share will be determined by the underlying values held by the infomediaries (whether personal or those of their employers and/or funders) and sometimes their commercial interests, when they need to sell their information. While K* functions play an important role in ensuring that a wide variety of voices are heard (particularly knowledge and innovation brokering), there is a concern that professional intermediaries do themselves become power brokers in the system[25], introducing biases in favour of one type of knowledge or another, and influencing change in a particular direction.

Choosing what knowledge needs sharing, with whom, and for what purpose, is a value-laden process, particularly where issues are heavily politicized and characterized by conflict and competition. As with the K* functions themselves, the boundaries between separate/neutral and deliberate/emergent are fuzzy ones and it will be difficult for professional intermediaries to remain completely neutral. Because of changing contexts and conflicting agendas, choosing what knowledge needs to be shared is inherently value-laden. However, with careful planning it is possible for them to act in ways which increase the credibility, saliency and legitimacy of all the types of knowledge, to all the different stakeholders.

23 Leeuwis & Aarts, 2011
24 Quoted in Fisher (2012), p9
25 Ramirez, 2008

K*: moving knowledge inwards, outwards and between

There are various ways K* practitioners can act to achieve their goals; they might disseminate information, manage and synthesize data, translate it for different audiences, establish more reflexive relationships between different stakeholders, or shape the system to enable better knowledge flows and to foster the conditions for innovation. Because K* comprises a spectrum of systems and activities rather than a set of different disciplines, it is impossible to develop categories describing exactly who 'does' or ought to do K*, particularly where knowledge is being co-produced. In many cases people will play multiple roles simultaneously depending on what the issue and the context require. For example, someone in a research manager role on a large project may oversee the production of high quality research (information intermediary), edit research briefs into language more appropriate for local government and small businesses, (knowledge translator), work to develop a future research strategy that responds to local needs rather than just interesting research questions (knowledge broker) and broaden the range of organizations contributing to and investing funds in the project so that knowledge is co-produced and they all feel a sense of ownership of the final results (innovation broker). Someone working in a citizen organization may feel it is important, as part of their job, to search for relevant knowledge online or in publications (information intermediary) and then spend time working out what it means for their organization (knowledge translator) without necessarily engaging in a two-way conversation with the researchers or trying to influence the broader system.

The case studies demonstrate this: all organizations represented at the conference fulfilled multiple roles simultaneously[26], as shown in Figure 5 .

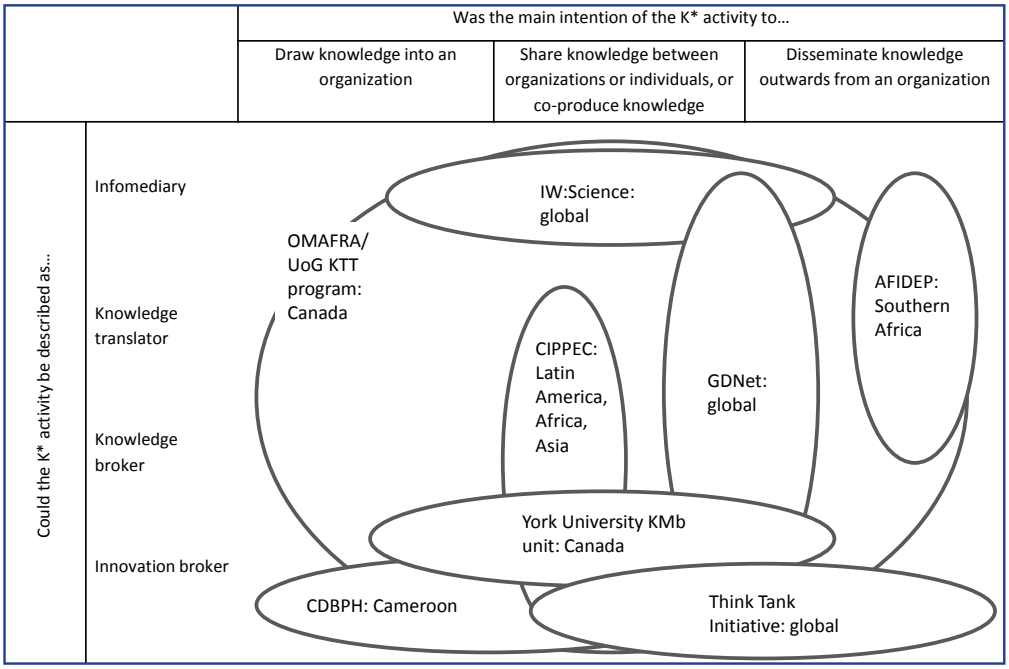


Fig 5: Mapping the selected case studies of K onto the spectrum of different functions*

This brings up several important points about K* functions. First, they are not always formally recognized, codified and funded as such. They may be part of a recognized role, such as communications, or they may be done 'off the side of the desk' as a way of improving or adding value to what people are already doing (e.g. someone working in healthcare provision being dissatisfied with the evidence that is immediately available to them, and putting in time to look for related experiences from other sectors).

Second, K* functions may be performed intentionally, with the specific purpose of improving knowledge flows in a system (e.g. changing people's job descriptions so that they are given incentives to work specifically on an aspect of K*), or they

26 Note that it would be perfectly possible to map the K* activities of individuals in this way. The case studies for the K* conference were requested at an organizational level for convenience of initial comparison. Developing a similar map for individual job descriptions could be similarly revealing.

may happen as a side-effect of doing something else (e.g. incorporating research communications into a traditional research management function). Finally, K* functions can be either structural or temporal: established and permanent (e.g. established KT systems between government and research, libraries, online portals or institutions such as the UK's Parliamentary Office of Science and Technology) or initiated only as the need arises – such as many funding mechanisms and project-based activities.

When considering interventions to improve the flow of knowledge, then, it is important to consider what functions are needed before deciding what needs to be done, what is missing, and whether it is possible to fill any gaps by altering what people already do (as opposed to creating new positions or organizations). While there may be merit in setting up independent groups or organizations to do K*, there is no absolute requirement for K* practitioners to be separate from the producers or users of knowledge. In many cases they will be the same people or organizations who incorporate K* functions as part of their work. It is also not necessary to have separate intermediary type organizations or to limit K* functions to intermediaries: in some instances it may be useful, while in others it may be counterproductive.

Box 5: Thinking innovatively about who can 'do' K*

As Andrew Campbell says eloquently; 'funding the arrows, not just the boxes' allows us to think creatively about who could do K* most cost-effectively. Many K* functions can take place without the direct involvement of separate intermediaries; those whose role is seen as distinct from the production or use of knowledge and who are focused entirely on the infomediary, translation, knowledge brokering or innovation brokering functions. Instead, many people often perform one or more K* functions as part of their ongoing work. This can be formally established in their job descriptions (one of the authors of this paper is a Senior Research Fellow and Knowledge Broker, for example), or simply seen as something that needs to be done to help them reach their objectives and add value to the main focus of their work. In international development, for example, the emphasis on research uptake encourages researchers trained in particular disciplines to develop expertise in communication and research utilisation skills. Hiring private sector consultants can also help build knowledge-based relationships. The world of consultancy is not often considered as part of K*, but we would argue it is a part of the K* landscape – playing a role in helping clients make sense of conflicting information or information overload; as well as helping institutions improve their wider relationships.

See also Campbell & Schofield (2006) and Leeuwis & Aarts (2011)

What this means is that there is no single prescription for designing and implementing a strategy that encompasses all the different functions that we collectively call K*. Similarly, there is no requirement to formalize the functions, no requirement for a particular organization or individual to perform them, and no requirement for them to be implemented as a permanent institution. This is a double-edged sword: while it gives great flexibility to design tailored K* systems, if K* is organizationally dispersed it may be 'invisible' or easily cut. To re-iterate, the key thing to bear in mind is that the K* function is important because it represents a set of core principles that underpin a diversity of methods employed in a diversity of contexts.

It is important not to let existing biases shape the way a K* strategy is designed and implemented. Jones et al. (2012) point out that anyone working as a knowledge intermediary (their term) has come through training that implicitly predisposes them to a particular type of knowledge, whether this is research-based knowledge, citizen knowledge, or knowledge from practice. When issues are highly politicized, people's values and beliefs will shape what they perceive to be credible evidence for any decision; K* practitioners are no exception to this. For example, someone with a background in community organizing may be uncomfortable with the way research is sourced, analysed and presented[27] and may dismiss research results which challenge their preconceptions about their work.

27 At the extreme, researchers may be seen as simply extracting information from disadvantaged people to further their personal career advancement goals. Setting up action research projects, where researchers collaborate with local groups to co-produce information, can introduce a brokering-type approach where the relationships between the groups are more equal in terms of whose goals are addressed by the research.

How does the context for K help shape the approach?*

The importance of different contexts

Box 3 traced the histories of two different approaches to K* in two different geographies and sectors. It showed that while they appear to currently face similar issues, the philosophies underpinning the approaches have varied with the economic, social, cultural and political environments in which they were developed. There are many different approaches to understanding these various contexts[28], but in terms of appreciating how they affect the flow of knowledge, Jones et al. (2012) set out four key issues:

1. The ***political context***: Where are the strongest voices in the decision-making processes? What checks and balances are in place to ensure that knowledge from weaker voices can be drawn in? How has this changed over time? Where are the barriers to implementation (including system-level constraints) and how have they arisen[29]?

2. How do the interests of the various ***actors*** coincide or conflict with each other? Are there strongly held values and belief systems that affect this? Who is seen as credible, and how does this affect what knowledge is used in the policy process? Has this changed over time and with what effects?

3. Which ***types of knowledge*** are used in decision-making? Considering research knowledge, citizen knowledge and knowledge from practice; what are the implications if one type of knowledge dominates? How does the demand-pull from decision-makers affect the types of knowledge that are used? What are the ethics of altering the balance between the different types of knowledge in decision-making? What would it take to do so?

4. What is the full range of ***K* practitioners*** working at the interface between the different 'worlds' involved in making the decisions? Where are they situated, how do they collaborate with or complement each other and what is their overall effect on whose voice is the most powerful?

This may be particularly useful for projects or programmes that are thinking of investing in K* functions, to help them focus their efforts on the most significant blockages to the flow of knowledge.

Supply, demand and co-production of knowledge

Another way of considering the context is to look at the relationships between the supply and demand for knowledge. How this affects the type of K* processes that are needed is the subject of this section, which is a speculative piece of analysis describing a potentially helpful framework.

While it may appear that focusing on supply and demand takes us back to the linear framework, relationships between supply and demand for knowledge are rarely simple and linear as the technology transfer model would suggest. They are also rarely direct economic relationships. Both the supply and demand for knowledge can be fragmented or focused. This can affect which type of K* processes are most appropriate in a given situation. Additional confusion can result when factoring in multiple knowledge producers and users; and uncertain or conflicting evidence adds another layer of complexity. Table 1 provides a way of categorizing these variables in order to characterize the supply and demand for knowledge. This is followed by examples where this method is applied to the selected case studies.

28 These fall under the broad heading of 'political economy analysis'

29 For commercial and practitioner interests, the political context covers system-level constraints such as the regulatory burden, support for access to information and other issues reducing barriers to implementation.

How does the context for K help shape the approach?*

		Demand for knowledge:	
		Fragmented	**Focused**
Supply of knowledge:	**Fragmented**	The issue is contested; there are competing understandings over what is important and the basis for decisions is vague or ambiguous **Scenario 4**	The issue is narrowly focused; there is good agreement on what is important and the basis for decisions is clear, though the evidence needs to be brought together from diverse sources **Scenario 2**
	Focused	Because the demand is fragmented, the issues will vary widely and there is likely to be little agreement on what is important. The current sources of knowledge will probably not be sufficient. **Scenario 3**	There is a high degree of certainty in the knowledge base and because the demand is focused there is good agreement over how to interpret it **Scenario 1**

Table 1: Characterizing the supply and demand for knowledge. Adapted from Snowden & Boone (2007), Hisschemoller & Hoppe (2001), Shaxson (2009) and internal World Bank documents. Obviously, the boundaries are much more fuzzy than are represented here.

Looking at the relationships between demand and supply for knowledge in this way gives us four scenarios which show how the context for K* can vary, bearing in mind that the boundaries between the different scenarios are very fuzzy indeed and that this is only a rough characterization.

The supply of knowledge can be characterized as focused when there are few organizations producing it, or when there is good general consensus over what the knowledge means. Conversely, it can be characterized as fragmented, when there are many different organizations involved in producing and supplying knowledge. This information glut makes it challenging for end users to extract the value and relevance prior to its application. Further complications arise when there is little consensus over what the knowledge means, with scientific research revealing considerable uncertainty or conflicting interpretations.

The demand for knowledge can be characterized as focused where there is a clearly-specified need from a single entity that is involved in making decisions around an issue – this could be a single organization, or a group of organizations that essentially agree with each other. Demand is fragmented when there are many decision-makers, or where they are in disagreement. This could come about if there are different definitions of what constitutes 'progress', if decisions are made at different levels (e.g. central and local government), if there are many different types of organizations along the chain (e.g. doctors, NGOs and policymakers being involved in decisions around healthcare provision) or if different perspectives give rise to different interpretations of the evidence and its relevance.

How does the context for K help shape the approach?*

In ***scenario 1***, both demand and supply of knowledge are focused, meaning that the body of knowledge is reasonably well established to offer solutions to well defined and understood problems. K* can help ensure that the knowledge gap is clearly identified and that the needed knowledge gets to the right people at the right time. Because there is no disagreement either in what is required or what is supplied, it is enough simply to ensure that knowledge is communicated well to the target audience (i.e. knowledge translation). There is no need for the additional relational K* functions, such as brokering; and the focus can be on ensuring the flow of knowledge from producer to user via the information intermediary and translation functions. None of the case studies really fit into scenario 1, although an argument could be made that elements of the work done by AFIDEP may fit here.

In ***scenario 2***, the demand for knowledge is focused, but the supply is fragmented. Problems require a range of knowledge and the challenge will be to bring them together in a way that makes sense and fills the knowledge gap. While there will be a clear need for the infomediary function, K* practitioners can act more as brokers here; focusing on the relational element, sourcing and translating different types of knowledge, making connections, helping articulate demand more clearly and ensuring that weaker voices are heard. The ***IW-Science*** case study fits into scenario 2.

In ***scenario 3***, the supply of knowledge is focused while demand is fragmented: problems vary widely and the supply of knowledge may well not be met by current knowledge producers. If K* functions work well they can help broaden this supply by increasing the legitimacy of different knowledge types around an issue (e.g. by supporting weaker voices and collecting knowledge from different sources). They can also help articulate demand to clarify what knowledge is needed. While there will be a need for both the infomediary and relational elements of K*, the focus will need to be on fostering an environment that stimulates innovation. ***AFIDEP*** and ***CDBPH*** case studies fit well into scenario 3.

In ***scenario 4***, both demand and supply are fragmented. Problems vary widely and are likely to change over time, it may be unclear who really 'owns' the problems, and there are few demonstrated solutions or widely accepted approaches. A characteristic of this scenario is that it will contain elements of the other scenarios[30]. The full spectrum of K* activities will be needed, but at different times and with different emphases, depending on need. ***York University***, ***GDNet***, ***CIPPEC***, ***OMAFRA*** and the ***Think Tank Initiative*** represent scenario 4; with complex relationships between the demand and supply of knowledge. York University's experience demonstrates the importance of developing approaches for co-production of knowledge in this type of environment.

Disaggregating the context in this way may help us understand how to tailor our work within knowledge systems; whether that means using the scenarios to help an organization or individual understand what types of activity will be needed for a particular issue, or using them to help donors scope a broad investment strategy in the knowledge economy.

30 Kurtz & Snowden, 2003, and Snowden & Boone 2007 contain detailed descriptions of each of the four scenarios in the Cynefin knowledge management framework. The framework presented above is closely related to the Cynefin framework, but is not identical.

Developing a strategy for investing in K: what impacts could it have, or help to achieve?*

K* functions are not done in isolation from other work: they support wider efforts to make progress. This means it is not possible to fully evaluate their success without evaluating how successfully the knowledge was used (issues of complexity, attribution and contribution quickly enter these discussions). It also means that it is impossible to separate 'pure' K* functions from the other project or programme activities. However, the framework presented in Fig 4 allows us to conceptualize a strategy for investing in K* (Fig. 6). Practicing K* in a networked world – whether as an individual or on a team, working for the World Bank or a civil society organization – means thinking strategically about how all of these functions can co-exist, where the balance should lie, what resources are needed to ensure those connections happen and who is best placed to do them. Figure 6 offers a set of questions that individuals or organizations can work through to develop their own K* strategy.

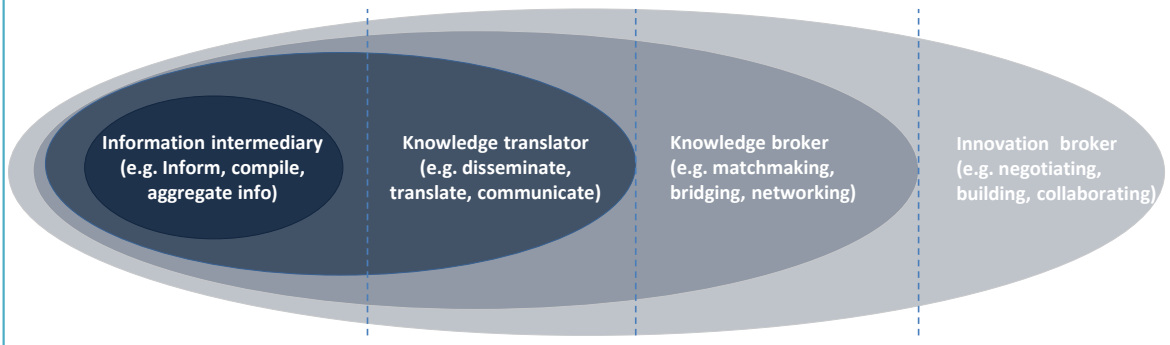
Given the associated functions, if we want to act as →				
While considering the wider context of the issues we are dealing with…				
What is needed to make this function happen?				
Which organisations have the mandate and capacity?				
How should these functions be sequenced? How resourced?				
What impact are we looking for? Measured how?				

*Fig 6: Developing a strategy for investing in K**

Having said that, we can consider what would indicate that K* functions are being used as intended; that they show an understanding of how the different functions fit together within the overarching framework presented in this paper. The table below shows a broad selection of indicators to choose from. In the same way that the K* functions exist as a spectrum, so do the indicators; while there is no linear progression between them, they do build on each other.

Developing a strategy for investing in K: what impacts could it have, or help to achieve?*

K* function: what will demonstrate that each is having an impact?	Possible indicators of achievement
Infomediaries: informing, aggregating, compiling, signalling information	• *Availability* of different types of knowledge in accessible formats for different audiences • *Reach*: in terms of the breadth of communication • *Cost-effectiveness* of communication methods in reaching all the intended audiences efficiently
Knowledge translators: Disseminating, translating, communicating knowledge and ideas	• *Credibility* of the knowledge to all audiences (i.e. marginalized groups are not excluded) • *Responsiveness* to audience needs for information • *Inclusiveness* in terms of the types of knowledge translated and the different audiences reached • *Openness* and transparency of interaction • *Uptake* of knowledge and *impact* on the final decisions
Knowledge brokers: bridging, matching, connecting, convening, linking, boundary spanning, networking and facilitating people	• Active *involvement* of all stakeholders in setting the agenda for the issue and its knowledge needs • *Length of interaction*: beginning to implement longer-term systems and processes based on mutual respect • *Responsiveness* to local needs • *Balance* in relationships: the ability to understand power dynamics and facilitate them to ensure that all voices are heard
Innovation brokers: negotiating, building, collaborating, managing relationships and processes	• Development of specific *organizational functions* that indicate institutional sustainability • Creating an *enabling environment* for knowledge use, bringing in all needed resources to enable change • Changes in '*hardware*' and '*orgware*' • Individual and organizational *capacity-building*; such that K* functions become internalized and part of routine business • Development of self-sustaining *financing systems* for K* functions

Table 3: Indicators of progress in the K functions (adapted from Jones et al., 2012, pp 158-159)*

Note that as we progress down the table, the indicators increasingly address the impact on the K* function itself – not just the issues it needs to address to ensure that things are functioning smoothly. This returns us to the paper's initial conception: that there is a spectrum of functions that are systemically linked to each other and that by focusing on their similarities we can develop a better understanding of the wider knowledge ecosystem than if we only concentrate on their differences.

Evaluating the potential impacts of any K* activity needs to take place at the beginning of a project. Regardless of what K* activity is emphasized, this is a discussion that needs to take place with all participants, particularly when knowledge is being co-produced. It allows indicators to be put in place that reflect the projects' goals, which can be used to reflect on progress and to change direction, if needed.

Conclusions

K* -- the collective term for the set of functions and processes at the various interfaces between knowledge, practice, industry and policy that improve the sharing of knowledge and its application, uptake and value in the pursuit of progress.

The frameworks summarized in this paper provide a useful starting point for understanding the importance of the different functions that make up K* and their role in accelerating and improving outcomes through applying and mobilizing knowledge. Terminology is important: the words we use to describe ourselves and our activities have implications for how we act and how we interact with others – but it is more important to develop an overarching understanding of how it all fits together to enable us to learn from, one another.

What is clear is that the different fields of KT, KB, KM, KMb, KTE, etc. are systemically related to each other and are all important in different, yet complementary, ways. What we term K* is a developing field woven together from diverse sectors and disciplines: it is important that we let the diversity of approach flourish, but that we also work hard to knit the various threads together into a loose cloth that covers the broad knowledge systems in which we work. If we can do this we can build a better overarching understanding of the system so that we can work out where we each fit into it, what others are doing, how to link to them and how to share experiences across sectors and geographies. While it may be important for people to reinvent wheels so they learn for themselves – a point made by Charles Dhewa at the conference – the conference demonstrated that there are real opportunities to share experience across sectors (e.g. health and water), across geographies (e.g. Canada with Argentina, Ghana and the Pacific) and across scales (e.g. the World Bank and smaller country-level programmes).

The K* field does not imply a hierarchy or a progression: it is made up of different roles and functions (infomediary, translator, knowledge broker, innovation broker) that need to be put together in different ways depending on the characteristics of the issue. Crucially, there is no need to be labelled as a K* practitioner to act as one: any of the various functions can be performed as a specific activity, by skilled and resourced individuals as part of their ongoing job, or by separate organizations set up for the particular purpose of improving their part of the knowledge system. To be successful – to achieve uptake and beneficial outcomes from knowledge – requires both a supportive system that recognizes and values the importance of the different approaches that need to be used and the participation of skilled individuals who understand how they all fit together and what sorts of impacts they could have.

There is a growing interest in the field both by organizations that are recognizing the value of the range of K* approaches as well as by academics who are studying the various activities or developing them as a science. Where K* is done in response to clearly-identified needs, the types of activity that are needed may be fairly clear from the outset. But for large-scale investments, it is useful to do a diagnosis of the context first, and this paper sets out one way of doing this.

For the wider knowledge system to be successful we need to get better at sharing best practice: as was started at the conference in Hamilton and as is being continued via the K* Green Paper. The more linear approaches may benefit from incorporating learning from the work on innovation systems done in international agriculture - so some people will want to know the specific tools and approaches others have used, while others may want to understand where they fit into the general scheme of things so they can form alliances and networks with other organizations working on different aspects of K*.

This concept note sets the framework for discussions and sharing to take place; the compilation of different approaches in the toolkit will be a useful first stop for people wanting to learn what has been done elsewhere and the work on assessing the impact of K* activities will help demonstrate their value. Discussions can continue on the Knowledge Brokers' Forum and at events co-sponsored by interested parties. A more formal network was one of the desired outcomes of the K* conference and may emerge in time as we become more aware of what is happening globally and how it all connects. This paper and related activities are just the first step.

Annex 1

Annex 1: the emergence of K* in developed world health research, and international agriculture.

In the early 1970's, Archie Cochrane (a British epidemiologist) published a seminal article deriding general practitioners for ignoring the results of rigorous trials when they made their prescribing decisions. In the mid 1980's, an international collaboration (the Cochrane Collaboration) began to investigate the use of Randomized Controlled Trials (RCTs) and publication bias: the concern was very much with improving the quality of the evidence around clinical trials and leading to the phrase 'evidence-based medicine'. The Canadian Cochrane Centre was the second to open, in 1983, after the UK (in 1982). The cause of improving research evidence was boosted – and spread far beyond the health sector to education, social work and wider public services – in 1997 when the UK Government adopted the mantra 'evidence-based policy-making'. This was a political response to the ideology-driven politics of previous conservative governments, intended to show that a Labour government would make policy around 'what works'. Around this time, the Canadian Institutes for Health Research (CIHR) and the Canadian Health Services Research Foundation (CHSRF) began working on 'Cochrane plus' – recognizing that even the most rigorously sourced evidence did not necessarily result in changing policies, and investigating the reasons why. From 2001, the Kings' College London hosted the ESRC-funded an Evidence Network (with units at Kings College London, Barnardo's and the Research Unit for Research Utilisation, which has been a leader in developing understanding of how research is used in policy and practice contexts[31]); in the same year that John Lavis became the first Canada Research Chair in Knowledge Transfer and Uptake. Researchers in both countries drew from each other to improve the links between evidence, policy and practice in public services, with CHSRF introducing the concept of knowledge brokering and CIHR championing knowledge translation.

In contrast, international agriculture (in the developing world) over the same period was very much shaped by the participatory movement. This began in the 1980s and emphasized the need to take account of power relations between donors and recipients of aid. Drawing on Paolo Freire's work on popular education and the ideas of liberation theology, the Campesino á Campesino (Farmer to Farmer) movement emerged in Guatemala in the late 1970's and spread across Central America via the NGO World Neighbours[32]. One of the early formal examples of embedding local participation in creating and sharing knowledge in international development, it was an explicitly political process which viewed this form of development as a way to improve political negotiation. Robert Chambers at the Institute for Development Studies in Sussex expressed some of this in his book *Putting the Last First*; one of the founding documents on the participatory movement. At the same time Niels Roling at Wageningen University was leading work to improve the way agricultural knowledge was shared, via collective learning processes rather than science-based messages; and the international organization ISNAR (International Service for National Agricultural Research) was taking these messages to its work with national agricultural research systems. These various ideas and experiences led to the development of Farmer Field Schools in Asia, participatory plant breeding at CIMMYT in Mexico, agricultural knowledge systems work in Africa, and other approaches that emphasized the importance of understanding local context, power relations and, above all, the participation of the end user in agricultural research. The mid 1980's through the mid 1990's could be characterized as the decade of participation and international agriculture continues to be informed by this relatively politicized approach.

31 Nutley et al., 2007
32 Holt-Giménez, 2006

Bibliography

The following is a selective list of the most useful literature around K*: all the different functions have their own literature and listing all of it is outside the scope of this paper. Instead, we have selected the key documents we have drawn on in the discussions leading up to the conference and this concept paper.

Tracing the emergence of the K* concept

Bielak, A.T., Campbell, A., Pope, S., Schaefer, K., & Shaxson, L. (2008). From Science Communications to Knowledge Brokering: The Shift from Science Push to Policy Pull. In Cheng, D., Claessens, M., Gascoigne, T., Metcalfe, J., Schiele, B., and Shi, S. (Eds.), *Communicating Science in Social Contexts: New models, new practices* (pp. 201-226). New York, LLC: Springer-Verlag.

Bielak, A.T. (2011). K* - An Overview of the Special Workshop on Knowledge Translation and Brokering: Where Next for Knowledge? In Knowledge Translation and Brokering Workshop Committee, *Proceedings of the Special Workshop on Knowledge Translation and Brokering preceding the Canadian Science Policy Conference in Montreal, Canada, 20 October 2010* (pp. 3-6). Retrieved from www.inweh.unu.edu/River/KnowledgeManagement/documents/AcrobatDocument_006.pdf

Canadian Science Policy Conference *Proceeding Booklet (2011). Proceedings Booklet of the Third Annual Canadian Science Policy Conference, Ottawa, Canada, 16-18 November 2011*. Retrieved from UNU-INWEH website: www.inweh.unu.edu/River/KnowledgeManagement/KStar_panel_CSPC_2011_Final.pdf

Estabrooks, C. A., Derksen, L., Winther, C., Lavis, J. N., Scott, S. D., Wallin, L., & Profetto-McGrath, J. (2008). The intellectual structure and substance of the knowledge utilization field: A longitudinal author co-citation analysis, 1945 to 2004. *Implementation Science, 3*(49). doi:10.1186/1748-5908-3-49

K* Conference 2012 - K* Green Paper, Annotated Outline, Version 4.0, 6 April 2012. Retrieved October 16, 2012 from www.inweh.unu.edu/River/KnowledgeManagement/Kstar2012GreenPaper.htm

The emergence of the nested ovals diagram

Collins, K. & Ison, R. (2006). Dare we jump off Arnstein's ladder? Social learning as a new policy paradigm. In *Proceedings of PATH (Participatory Approaches in Science & Technology) Conference, 4-7 June 2006, Edinburgh*[33]. Retrieved from http://oro.open.ac.uk/8589/

Collins, K. & Ison, R. (2009). Jumping off Arnstein's ladder: social learning as a new policy paradigm for climate change adaptation. *Environmental Policy and Governance, 19*, 358–373. doi: 10.1002/eet.523

Fisher, C. (2012). Knowledge brokering and intermediary concepts: analysis of an e-discussion on the Knowledge Brokers' Forum. *Institute for Development Studies*. Retrieved October 16, 2012 from http://www.knowledgebrokersforum.org/blogs/person/gxearcmpxydfpxtee

Harvey, B., Lewin, T., & Fisher, C. (2012). Is Development Research Communication Coming of Age?. *IDS Bulletin, 43*, 1-8. doi: 10.1111/j.1759-5436.2012.00356.x

Jones H., Jones, N., Shaxson, L., & Walker, D. (2012). *Knowledge, policy and power in international development: a practical guide*. Bristol: The Policy Press.

Michaels, S. M. (2009). Matching knowledge brokering strategies to environmental policy problems and settings. *Environmental Science and Policy, 12*(7), 994-1011.

33 This is the first paper to present the nested ovals diagram; the second paper by these authors further develops the concepts but does not use the diagram.

Bibliography

Wider work on each of the different functions

Information intermediaries

Fisher, C. & Kunaratnam, Y. (2007). Between Ourselves: the new generation of information and knowledge intermediaries. Retrieved from Institute of Development Studies http://www.ids.ac.uk/files/Between_ourselves_report.pdf

Fisher, C. (2010). How research brokers and intermediaries support evidence-based pro-poor policy and practice: an analysis of the Locating the Power of In-between Conference 1-2 July 2008, Pretoria, South Africa, *Human Sciences Research Council & Institute of Development Studies.* Retrieved from http://www.hsrc.ac.za/Research_Publication-21525.phtml

Ramirez, R. (2008). A 'meditation' on meaningful participation. *The Journal of Community Informatics, 4*(3). Retrieved from http://ci-journal.net/index.php/ciej/article/view/390/424

Knowledge translators and brokers

Lavis, J., Ross, S., McLeod, C., & Gildiner, A. (2003). Measuring the impact of health research. *Journal of Health Services Research and Policy, 8*(3), 165-70.

Lomas, J. (2007). The in-between world of knowledge brokering. *British Medical Journal, 334*(7585), 129.

Meyer, M. (2010). The Rise of the Knowledge Broker. *Science Communication, 32*(1), 118–127.

Michaels, S. (2009). Matching knowledge brokering strategies to environmental policy problems and settings. *Environmental Science and Policy, 12*(7), 994-1011.

Pant, L. P. & Odame, H. H. (2009). The promise of positive deviants: bridging divides between scientific research and local practices in smallholder agriculture. *Knowledge Management for Development Journal, 5*(2), 160-172.

Sternin, J. and Choo, R. (2000). The Power of Positive Deviancy. *Harvard Business Review, 78*(1), 14-15.

Urqhart, R., Porter, G. A., & Grunfeld, E. (2011). Reflections on Knowledge Brokering Within a Multidisciplinary Research Team. *Journal of Continuing Education in the Health Professions, 31*(4), 283-290.

Innovation brokers

Blackmore, C. P., & Armson, R. (2007). Learning participation as systems practice. *Journal of Agricultural Education and Extension, 13*(3), 209-225.

Hisschemoller, M & Hoppé, R. (2001). Coping with intractable controversies. In Hisschemoller, M., R. Hoppé, and W. Dunn (Eds.), *Knowledge, Participation and Power in Environmental Policy Analysis* (pp. 47-72). New Brunswick: Transaction Publishers.

Kilelu, C., Klerkx, L., Leeuwis, C., & Hall, A. (2011). Beyond knowledge brokering: an exploratory study on innovation intermediaries in an evolving smallholder agricultural system in Kenya. *Knowledge Management for Development Journal*, 7(1), 84-108.

Klerkx, L., Hall, A., & Leeuwis, C. (2009). Strengthening agricultural innovation capacity: are innovation brokers the answer? *International Journal of Agricultural Resources, Governance and Ecology, 8*(5-6), 409-438.

Leeuwis, C. & Aarts, N (2011). Rethinking communication in innovation processes: Creating space for change in complex systems. *Journal of Agricultural Education and Extension, 17*(1), 21-36.

Phipps, D. (2011). A Report Detailing the Development of a University-Based Knowledge Mobilization Unit that Enhances Research Outreach and Engagement. *Scholarly and Research Communication, 2*(2): 020502, 13. Retrieved from http://pi.library.yorku.ca/dspace/handle/10315/10236

Bibliography

Röling, N.G. (1992). The emergence of knowledge systems thinking: A changing perception of relationships among innovation, knowledge process and configuration. *Knowledge and Policy: The international Journal of Knowledge Transfer and Utilization, 5*, 42-64.

World Bank (2006). Enhancing Agricultural Innovation: How to Go Beyond the Strengthening of Research Systems. Retrieved from the World Bank website https://openknowledge.worldbank.org/handle/10986/7184

Communication for development

Adolph, B., Herbert-Jones, S., Proctor, F. J., Raven, E., & Myers, M. (2010). Learning lessons on research communication and uptake. A review of DFID's Research and Evidence Division's human development (health and education) and agriculture portfolios and their contribution to the 30% policy, Part 1 Final report. 142pp. Retrieved from Department for International Development website: http://www.dfid.gov.uk/r4d/PDF/Outputs/Communication/Research-uptake-report-part1.pdf

The Communication Initiative, Food and Agriculture Organization of the United Nations, and the World Bank (2007). *World Congress on Communication for Development: Lessons, Challenges and the Way Forward*. Retrieved from Food and Agriculture Organization of United Nations website: http://www.fao.org/docrep/010/ai143e/ai143e00.htm

Hovland, I., Young, J., Mendizabal, Y., & Knezovich, J. (2008). *Review of research communication in DFID-funded Research Programme Consortia (RPC)*. London: Overseas Development Institute. Retrieved from http://www.odi.org.uk/resources/docs/5729.pdf

Lewin, T., Harvey, B., & Page, S. (2012). New Roles for Communication in Development?, *IDS Bulletin*, 43(5).

Mazzei, L., Fraser, C., Estrada, S. R., Balit, S., & Grenna, L. *What Do They Think? Policy Makers and the Role of Communication for Development: A Perception Study Conducted in 2005–2006*. Development Communication Division, External Affairs and United Nations Relations Vice Presidency, World Bank, Washington, DC.

Quarry, W. & Ramirez, R. (2009). *Communication for Another Development: Listening Before Telling*. London: Zed Books.

Thompson, M. (2008). ICT and Development Studies: Towards Development 2.0, *Journal of International Development, 20*(6), 821-835.

Other useful thinking

Akkerman, S. F. & Bakker, A. (2011). Boundary Crossing and Boundary Objects, *Review of Educational Research, 81*(2), 132–169.

Campbell, A. & Schofield, N. (2006). *The getting of knowledge: a guide to funding and managing applied research*. Canberra: Land & Water Australia

Chambers, R. (1983). *Rural development: putting the last first*. Harlow: Pearson Education Ltd.

Clark, W. C., Tomich, T. P., van Noordwijk, M., Guston, D., Catacutan, D., Dickson, N. M., & McNie, E. (2011). Boundary work for sustainable development: Natural resource management at the Consultative Group on International Agricultural Research (CGIAR), *Proceedings of the National Academy of Sciences Early Edition*, doi: 10.1073/pnas.0900231108.

Davies, S. (Ed.) (1994). Knowledge is power? The use and abuse of information in development, *IDS Bulletin*, 25(2).

Einsiedel, E. F. (2002). Assessing a controversial medical technology: Canadian public consultations on xenotransplantation. *Public Understanding of Science, 11*, 1-17.

Holt-Giménez, E. (2006). *Campesino a Campesino: Voices from Latin America's farmer-to-farmer movement for sustainable agriculture*. Oakland, CA: Food First Books.

Kurtz, C. & Snowden, D. (2003). The new dynamics of strategy: sense-making in a complex and complicated world. *IBM Systems Journal, 42*(3), 462-483.

Bibliography

Nutley, S. M., Walter, I., & Davies, H. T. O. (2007). *Using Evidence: How research can inform public services*. Bristol: The Policy Press

Olsson, M. O. (2005). Schools of Systems Thinking: Development Trends in Systems Methodology. In Olsson, M.O. & Sjostedt, G. (Eds.), *Systems Approaches and Their Application: Examples from Sweden* (pp. 31-74). New York: Kluwer Academic Publishers.

Pant, L. P. (2012). Learning and Innovation Competence in Agricultural and Rural Development. *Journal of Agricultural Education and Extension, 18*(3), 205-230.

Pielke, R (2007). *The honest broker: making sense of science in policy and politics*. Cambridge: Cambridge University Press

Rivera, W. M. & Sulaiman, V. R. (2009). Extension: object of reform, engine for innovation. *Outlook on Agriculture, 38*(3), 267–273.

Shaxson, L. (2009). Structuring policy problems for plastics, the environment and human health: reflections from the UK. *Phil. Trans. R. Soc. B 364*, 2141-2151. doi: 10.1098/rstb. 2008.0283

Snowden, D.J. & Boone, M.E. (2007). A leader's framework for decision-making. *Harvard Business Review*, 1-9.

van den Ban, A. W. (1964). Effective communication of new ideas to farmers. *Agricultural Record, 23*, 6 - 18.

Waisbord, S. (2001). Family Tree of Theories, Methodologies and Strategies in Development Communication (Doctoral dissertation). Retrieved from http://envirocom.files.wordpress.com/2008/03/theories-methodologies-strategies-in-development-communication.pdf

Williams, P. (2002). The Competent Boundary Spanner. *Public Administration, 80*(1), 103-124.

Case Studies

Case Study 1
AFIDEP: Assessment and dissemination of policy and program drivers of increased contraceptive use in East and Southern Africa: lessons to enforce the reproductive revolution in Africa 32

Case Study 2
Civil Society Directorate, Center for the Implementation of Public Policies Promoting Equity and Growth (CIPPEC): "Spaces for engagement: using knowledge to improve public decisions" 37

Case Study 3
Agri-Food and Rural Link – Knowledge Translation and Transfer Program, University of Guelph and the Ontario Ministry of Agriculture, Food and Rural Affairs 45

Case Study 4
UNU-INWEH/IW: Science 'Enhancing the use of Science in International Waters projects to improve results' 52

Case Study 5
GDNet: From Knowledge Hub to Knowledge Broker? 55

Case Study 6
IDRC: Think Tank Initiative 62

Case Study 7
Centre for Development of Best Practices in Health (CDBPH) 69

Case Study 8
Knowledge Mobilization for Social Innovation in York Region (York University) 76

Case Study 1 - AFIDEP

K* Case Study Name	***AFIDEP: Assessment and dissemination of policy and program drivers of increased contraceptive use in East and Southern Africa: lessons to enforce the reproductive revolution in Africa***
Author	***Nyokabi Musila (AFIDEP)***

Q1. What were the client contexts that generated demand for knowledge?

What were the development challenges and knowledge demand the clients faced at the beginning?

Contraceptive use in Sub-Saharan Africa increased more slowly in the early years of the 21st century than in the 1990s. But a few countries in East and Southern Africa have fueled a new wave of optimism about progress in addressing the unmet need for family planning (FP). And policymakers and development partners express growing interest in addressing this need, given the potential of FP for reducing rapid population growth and thus improving maternal and child health indicators, as well as contributing to meeting broader socioeconomic development goals.

African policymakers who interacted with staff of the African Institute for Development Policy (AFIDEP)[1] wanted practical lessons from sound operational research on (i) how to improve their programs in sexual and reproductive health (SRH/FP) and population, and (ii) innovative ways to mobilize resources for family planning. AFIDEP is now undertaking a one-year project to provide such lessons. The project will contribute to AFIDEP's ongoing advocacy work in SRH/FP and demonstration of the link between FP uptake and population growth and economic indicators. AFIDEP hopes to expand the project in the future to cover other African countries and regions.

How have the responses evolved, and what was the nature of knowledge brokering in the process?

The initial research was done in Rwanda, Malawi, and Ethiopia and found that these three countries have had very similar drivers of progress, albeit these have played out very differently. This finding made it easier to orient the work in the remaining countries, where progress had stalled and recently recovered: Tanzania and Kenya.

1 The African Institute for Development Policy (AFIDEP) is a regional non-profit policy think tank whose mission is to facilitate the creation, translation, and utilization of research evidence for policy formulation and resource allocation in Africa. Established in 2009, AFIDEP works to help close the gaps between research, policy, and practice by translating research evidence and pro¬moting its use by policymakers and development practi¬tioners at national, regional, and international levels. The Institute also builds local capacity in knowledge genera¬tion, translation, and utilization. The public health themes its work focuses on include: (i) population dynamics and sustainable development (ii) sexual and reproductive health; (iii) maternal and child health; and (iii) health system strengthening and health financing. AFIDEP provides technical support to national governments, regional bodies, and international development partners to ensure that their policies and programs are grounded on good evidence. The initial financial support for AFIDEP was provided by the nonprofit organization Venture Strategies for Health and Development, based in Berkeley, California. (Venture Strategies was launched in 2001 as a program of the United States affiliate of Population and Development International, linked closely with the Population and Community Development Association in Thailand; in 2005, it received the Global Philanthropy Forum Prize for social entrepreneurs. http://www.venturestrategies.org)

Case Study 1 - AFIDEP

Q2. Goals, activities, and results: What knowledge was connected, among whom, in which arrangements, producing what results? [2]

What were the institutional set-up and funding arrangements for this work?

Conceived and implemented by AFIDEP, the project is funded by the United Nations Population Fund (UNFPA)'s Africa Regional Office and the David and Lucille Packard Foundation. Its time span is October 2011 to September 2012 (possibly with an earlier completion date).

Although AFIDEP is a relatively new organization it has advantages in undertaking such a knowledge-brokering project and is seeking to create a niche in brokering knowledge in the reproductive health (RH) field. Its director[2] has long experience in RH and is well known; other staff have substantive expertise in public health and in presenting/packaging knowledge in this field to make it readily usable for policy-making.

What specific efforts were involved, what did they intend to achieve?

The goal of the project is to provide insights into what FP policies and programs progressive countries in the last decade or so have developed and implemented, relative to those of countries whose progress in contraceptive uptake stalled (although absolute indicators are favorable and in some instances better). Country case studies in Eastern Africa compare experiences in Ethiopia, Malawi, and Rwanda, which are good performers, with those in Kenya and Tanzania, whose progress stalled in the recent past. Findings and recommendations from the country case studies are being disseminated to other countries in the region, to help galvanize commitment to FP and propel similar progress.

Specifically, the project seeks to:

- document lessons on the drivers of increased contraceptive use in countries that have performed well in the last decade or so, and compare/contrast them with those whose progress has stalled. The study uses both quantitative and qualitative methods (in-country key informant interviews with policymakers and other stakeholders; reviews of policies and programs; and audits of trends, levels, and sources of funding for family planning);
- disseminate information on the identified drivers of increased contraceptive use to less-well performing countries in sub-Saharan Africa, in order to elicit political and practical support for their family planning programs;
- assist well-performing countries to share their experiences and lessons, to help further improve their own family planning programs.

2 AFIDEP's founder and director is Eliya Msiyaphazi Zulu, PhD, a Malawian demographer who is the elected president of UAPS, the Union for African Population Studies, with a membership of over 1,000.

Case Study 1 - AFIDEP

Who were the participants and what were the activities involved?

Reach: The initiative has a regional focus in Sub-Saharan Africa.

Research and knowledge translation are being done by AFIDEP staff. Other participants are stakeholders in reproductive health who are decision-makers or who influence decision-makers (technical assistants who inform policymakers, and organizations/individuals involved in advocacy): i.e. policymakers, technocrats in government, development partners, international NGOs, and civil society organizations.

Dissemination is targeted to national and regional policymakers through AFIDEP's networks: AFIDEP will present the study findings at meetings of the regional economic communities (EAC, SADC, ECOWAS); African Union; Southern and Eastern Parliamentary Alliance of Committees of Health (SEAPACOH); and international conferences where government officials are sponsored to attend. Offices targeted are ministries of health and in particular reproductive health units, e.g. health ministers and deputy ministers, permanent secretaries, heads of departments; ministries of planning; and non-governmental providers of Family Planning.

The outputs are being strategically timed to inform policymakers, key stakeholders, and scientific audiences at key events within Africa and beyond. Dissemination will allow both well-performing and less well performing countries to learn from the well-performing countries' experience. Initial funding for the project covered the research and preparation of dissemination/advocacy materials; if more is forthcoming, a bigger dissemination effort can be undertaken. For key policymakers AFIDEP may organize one-on-one briefing meetings.

AFIDEP has also identified family planning champions in government, to whom it disseminates findings and who then also become advocacy partners.

What are the results thus far– e.g. policy changes informed, capacity being built?

The intended impact of the project: to give practical knowledge to decision-makers on how to resolve challenges in FP service delivery and perhaps instigate changes in service delivery policies or their implementation. It is too early to see an impact on the policymakers who are the project's clients, but many people and organizations – including donor organisations -- are showing interest in the study and its results.

Outputs from the project:

- Advocacy materials for dissemination of synthesized research findings, including policy briefs and presentations;
- Comprehensive study report (forthcoming) synthesizing findings and lessons from the project;
- Scientific or policy publications highlighting lessons from the project.

The lessons from the project will help to better understand and propel the evolving FP revolution in Africa, and contribute to developing methodology on how to study and improve responses to similar reproductive health challenges that the continent is facing. They will contribute to decision-makers' explicit and tacit knowledge. But measuring the impact of the project on policy and programs is challenging.

Case Study 1 - AFIDEP

3. The connector role

Who are/were connected?

The project uses research evidence to influence decision-makers. AFIDEP identifies policymakers' needs and undertakes participatory research in which it interacts with policymakers. AFIDEP packages research results into policy briefs and presentations, and disseminates them at workshops and conferences and through policy dialogues and informal networks.

How and why were they connected?

Would you characterize the demand for knowledge as fragmented, or focused? Why is this?
Fragmented. The project addresses multiple policymakers in national governments and regional and international organizations. While all are demanding knowledge on the same topic, contextualizing the evidence for each country remains a challenge.

Would you characterize the supply of knowledge as fragmented, or focused? Why is this?
Focused: all packaged and provided by AFIDEP.

Other observations, lessons

- Policymakers know their needs for context-specific evidence that demonstrates the immediate and long-term benefits of particular policies. The way to meet these needs is to move away from working in silos: researchers should engage with end-users to match their research agenda to policymaker/government needs by (i) developing the needs into well-structured research questions and (ii) providing evidence that can be aggregated to increase robustness.
- Crucially, the involvement of policy implementers (e.g. reproductive health unit directors and program officers) ensures buy-in from the outset. Implementers can also influence the direction of policy decisions by providing contextual evidence.
- Narrowing the divisions between discovery, decision-making, and implementation would promote policy implementation.

Key challenges faced in this project:

- ***Timeliness***: policymakers want evidence now; the researcher/knowledge translation specialist has a narrow policy window to work in, and yet must produce robust research evidence which takes time to aggregate. In this case AFIDEP needed to review a lot of program documents, as well as to conduct primary qualitative case studies in five countries. (In Malawi, for example, the policy environment has recently changed with the installation of a new president who is a maternal health champion, giving a good opportunity to present findings. Such examples will always arise.)
- ***Generalizability of findings***: policymakers tend to want to know what works in their own setting/ circumstances. Accurate application of "best practice" findings to other countries presents a challenge.

Case Study 1 - AFIDEP

- ***Interpretation of findings may be contextual***, based on local politics, culture, etc., making it challenging to draw general recommendations for other countries. For example, a common key driver of FP program success that AFIDEP identified in all countries is political will, but this played out very differently in each country.
- ***Knowledge brokering and knowledge translation is about relationships and networks***. Building the trust of policymakers is key, and can only be done in person. Building trust demands substantial financial and personnel-time resources to meet face-to-face with policymakers and technocrats in government, and to access insights on policies and program design.
- ***As a regional intermediary organization, AFIDEP needs to invest not only in relationships but also in understanding politics and culture across boundaries***. This takes time and exposure (it goes well beyond reading the newspaper), but it is key to understanding policy decisions, identifying policy windows of opportunity, and influencing policy decisions.
- ***Conducting research in some countries as a foreign institution can raise mistrust/suspicion***. One way AFIDEP handles this risk is to collaborate with a local organization such as a national university or advocacy group, or with their bank of individual associate fellows. Again, this requires having already built a network of relationships with relevant/appropriate academics.

Another observation

The approach taken in this research—comparing the key drivers of change across different country circumstances, and engaging policy implementers and end-users of research in the research process itself—could be replicated in other branches of public health and in reproductive health research in other groups of countries.

Sources and contributions to this data sheet

Documents reviewed:

- AFIDEP website, www.afidep.org (accessed June 11, 2012).
- AFIDEP, "Renewed Efforts to Meet Women's Reproductive Health Needs Required to Address Stagnation in Family Planning Use in Eastern and Western Africa," Policy Brief No. 1. 2011. Available at http://www.afidep.org/wp-content/uploads/2011/06/AFIDEP-Policy-Brief.pdf
- AFIDEP, "Assessment of Drivers of Progress in Increasing Contraceptive use in sub-Saharan Africa – Case Studies from Eastern Africa." Available at http://www.afidep.org/assessment-of-drivers-of-progress-in-increasing-contraceptive-use-in-sub-saharan-africa-%e2%80%93-case-studies-from-eastern-africa/
- Musila, Nyokabi, KStar Conference Brief, "Assessment and dissemination of policy and program drivers of increased contraceptive use in East and Southern Africa: lessons to enforce the reproductive revolution in Africa." April 2012. Available at http://www.inweh.unu.edu/River/KnowledgeManagement/documents/KstarPanel_templates/KStar_Case_Study_Nyokabi_Musila_AFIDEP_KT.pdf
- Musila, Nyokabi, KStar Conference Brief, "Introduction to AFIDEP." April 2012. Available at http://www.inweh.unu.edu/River/KnowledgeManagement/documents/KStar_Marketplace_files_Combined_to_April_19.pdf

Author contact:

Dr. Nyokabi Ruth Musila, Knowledge Translation Scientist, African Institute for Development Policy (AFIDEP). Email: nyokabi.musila@afidep.org. Phone + 254 202 039 510.

Case Study 2 - CIPPEC

K* Case Study Name	***Civil Society Directorate, Center for the Implementation of Public Policies Promoting Equity and Growth (CIPPEC): "Spaces for engagement: using knowledge to improve public decisions"***
Authors	***Leandro Echt, Vanesa Weyrauch***

Q1. What were the client contexts that generated demand for knowledge?

What were the development challenges and knowledge demand the clients faced at the beginning?

Many policymakers recognize the usefulness of research findings but lack the skills to apply them, while many researchers lack the skills to translate their findings into policy terms. Much knowledge is being produced in developed countries about how to build capacity to influence policy. But there are very few sources of such knowledge in the developing world.

"Spaces for Engagement: Using knowledge to improve public decisions" is a six-year partnership between GDNet[1] and CIPPEC[2] to improve the bridging of research and policy-making. It aims to strengthen the capacity of policy research institutes (PRIs) in Latin America, Africa, and Asia to influence public policies. As well as providing training in various forms, the project seeks to deepen and expand a community of practice composed of researchers from PRIs as well as policymakers who are strongly committed to improving the use of development research in policy-making

How have the responses evolved, and what was the nature of knowledge brokering in the process?

Before the "Spaces" project started, CIPPEC had been working with the Overseas Development Institute on policy influence issues for some years. GDNet had traditionally worked with researchers, and sought out CIPPEC as a potential partner to help it build policy research capacity in the region. From implementing other projects, CIPPEC recognized that policymakers' demand for evidence is key, if research findings are to effectively influence policy.

In 2008, CIPPEC and GDNet held a joint workshop in Buenos Aires on Linking Research Communication to Policy Impact through Knowledge Management. Participants included policymakers, members of international organizations, and representatives of PRIs and civil society organizations. They jointly identified the challenges and needs of PRIs in Latin America regarding research communication and policy influence, and on this basis, CIPPEC submitted a proposal to GDNet to work on these issues in Latin America.

1 GDNet is the knowledge service of the Global Development Network (GDN). GDN is an independent international organization that allies researchers and institutes in development globally. Founded in 1999 with support from the World Bank, GDN now receives support from governments, multilateral development agencies, private corporations, and foundations. The GDN Board is managed by prominent researchers with distinguished records of informing development policy debate. Each of GDN's regional network partners and international research organizations selects its own representative to the Board. GDN is now headquartered in New Delhi, with offices in Cairo and Washington.

2 Founded in 2000, the Center for the Implementation of Public Policies Promoting Equity and Growth (CIPPEC) is a private, non-profit organization based in Buenos Aires and dedicated to improving the quality of public policies, mainly in Latin America, in the areas of education, public health, justice, transparency, and public spending. "Spaces for engagement: using knowledge to improve public decisions" is managed by CIPPEC's Civil Society Directorate, whose goals are to improve CSOs and PRIs' capacity to plan, monitor, and evaluate policy influence, and to promote the use of research and evidence in public policy-making.

Case Study 2 - CIPPEC

Once the "Spaces" project started, think tanks across Latin America quickly began asking for help.

At first, "Spaces" undertook knowledge brokering mainly to strengthen the ability of researchers to influence public policies, but increasingly it has also sought more direct interactions with policymakers to facilitate their use of evidence in decision-making. "Spaces" does not get involved in particular policy issues, but facilitates others to do so by building their capacity. (Certain other CIPPEC programs try to influence policy decisions in Argentina.)

The project started with a wholly Latin American focus. It extended its reach to Asia and Africa in 2010, when CIPPEC and GDNet decided to deepen South-South collaboration. "Spaces" identifies the interests of its clients through workshops and responses to online courses, as well as from requests coming directly from PRIs for exchanges and peer assistance. But it is also proactive in "pushing" opportunities to learn about cutting-edge issues. For example, it started working on the monitoring and evaluation of policy influence in Latin America, and then decided to launch a call for African and Asian researchers to participate, and received a great number of applications.

Where requested, CIPPEC helps PRIs to select and contact potential hosts for peer assistance and exchanges. To achieve a good match, CIPPEC asks the requesting organization to choose a policy influence area that it wants to learn about (e.g. fund raising) and then matches it with an organization that has extensive experience in that area.

Q2. What knowledge was connected, among whom, in which arrangements, producing what results?

What were the institutional set-up and funding arrangements for this work?

GDNet provides financial support for the project (GDNet itself receives financial support from DFID and DGIS for its overall Capacity Building Program). At the start of each year, CIPPEC and GDNet agree the activities for "Spaces" for the year. Once the contract is signed, CIPPEC coordinates every activity, with periodic exchanges with GDNet and accountability provided through mid- term reports and annual reports.

What internal organizational alignment made the external connector activities possible? Any enabling or prohibiting factors?

When it started, the project could draw together and build on the results of more than five years of intense work by CIPPEC to strengthen Latin American PRIs, testing and using methods including research, production of practical handbooks, workshops, face-to-face meetings, and virtual exchange of knowledge.
Thus CIPPEC had advantages for undertaking such a project:

- Expertise in facilitating virtual networks
- Experience in developing practical materials for diverse capacity-building activities
- Reputation--one of the most prominent think tanks in Latin America
- Capacity to "translate" cutting-edge literature to local needs and capacities in developing countries
- More than five years working in policy influence.

What specific efforts were involved, what did they intend to achieve?

Key decisions that were made in project design were to:

- Use a mix of approaches, often overlapping and mutually complementary and mixing theory with practice:
  - Research

  - o Development of training materials
  - o Online and offline training
  - o Networking and debates
- Develop an online training platform, to keep costs down while broadening reach
- Identify key topics for capacity building in CSOs and PRIs
- Use cutting-edge knowledge and adapt it to developing countries' needs
- Provide continuity through annual regional events.

To help strengthen the influence of African and Asian PRIs on policy-making in their countries, the project facilitates these organizations' access to knowledge, tools, and lessons learned or developed by Latin American PRIs. For this purpose it sponsors research, develops online courses and discussion forums, provides face-to-face workshops and technical assistance, and participates in regional meetings. It also supports peer exchanges between African or Asian PRIs and institutes in Latin America, to share lessons learned in strategic planning, strategic communications, fundraising, and program management, policy-influence-action planning, network development, and monitoring and evaluation.

As well as offering standard courses online—for example in research communications, policy influence, and monitoring and evaluation—for some clients "Spaces" offers tailored courses and face-to-face workshops. Sometimes what happens is that an individual will complete an online standard course and then ask CIPPEC to arrange a similar course or a face-to-face workshop for his/her whole organization, tailored to its particular circumstances. (For example, in Uganda in June 2011, in the context of a bigger conference on Research Communications Capacity Building, "Spaces" partnered with Trust Africa and GDNet to deliver a workshop for Ugandans on How to Write Policy Briefs. CIPPEC organized a similar Policy Brief Training Workshop in Kenya in partnership with the African Research Consortium and GDNet. In such cases CIPPEC sometimes calls on partner organizations to help with substantive content and/or local knowledge.

Who were the participants and what were the activities involved?

The project focuses on capacities for both supply—from researchers, policy research institutes or think tanks, and civil society organizations—and demand—from policymakers. CIPPEC provides and sponsors:

- ***Research and generation of local knowledge***, including a handbook to help PRIs develop systems of monitoring and evaluation and knowledge management; research papers including comparative studies of PRIs; and bibliographical reviews.
- ***Online communities of practice, networks, and debates***. These include the online platform ***Bridging Research and Policy in Latin America***, at www.vippal.cippec.org, and virtual communities on the use of evidence in childhood policies (more than 50 members) and climate change policies (more than 70 members).
- ***Executive Directors of Latin America*** spans 13 countries; it links 23 executive directors from Latin American PRIs interested in improving the impact of policy research. The Evidence-Based Policy Development Network, at www.ebpdn.org, is a worldwide community of practice for think tanks, PRIs, and similar organizations working in international development to promote more evidence-based pro-poor development policies. EBPDN's virtual platform is a space for knowledge exchange, debate, and sharing of lessons and experiences in bridging research and policy. It includes a virtual library and a bimonthly newsletter. It involves 225 members and 35 countries.

- ***Training***—online and offline (for example on how to build a policy influence plan, how to monitor and evaluate policy influence, improving childhood policies, research communications, how to write policy briefs). The online courses are targeted to policy research institutes, think tanks, universities, policymakers, CSOs, researchers, M&E specialists, communication specialists, development project coordinators, lecturers, and network managers. They combine theoretical modules and practical exercises to help learners detect their strengths and opportunities for policy influence. Based on these, facilitators help participants focus their advocacy efforts in the right direction, maximizing available resources and developing intelligent strategies underpinned by a successful political reading. Debates and exchange of experiences among trainees are also promoted. Facilitators provide technical advice to trainees through detailed feedback on completed exercises.
- ***Development of training materials*** (handbooks, how-to guides, modules).
- ***Technical assistance*** through local workshops for CSOs, think tanks, and government agencies. Some of the workshops have had multiplier effects. (For example, a workshop was held in July 2010 on "What do we know about our policy impact? Knowledge management, monitoring and evaluation of the influence of evidence-based public policies." Participants from that workshop then carried out five local workshops in Guatemala, Nicaragua, Paraguay, Peru, and Uruguay to share with their peers what they learned there.)
- ***Regional workshops*** provide occasions for debate and joint work among leading PRIs.
- ***Peer assistance***: Five PRIs from Argentina, Colombia, Ecuador, Nicaragua, Peru, Uruguay, and Venezuela have visited their peers in the region to exchange experiences and queries in different areas (influence planning, communication strategies, networking) to strengthen their capacities for policy influence). One peer assistance arrangement between a Latin American (Colombia) and an African organization (from Zimbabwe).
- Four online courses for Africa and Asia on how to build a policy influence plan and how to monitor and evaluate policy influence.

What are the results thus far– e.g. policy changes informed, capacity being built?

Some project outputs as of April, 2012:

- 17 countries involved in Latin America
- 22 countries involved in Africa and Asia
- 400 policy research institutes (PRIs) networking in a community of practice
- 1 online platform: "VIPPAL – Bridging research and policy in LA," at www.vippal.cippec.org
- 1 newsletter for Latin America
- 1,600 resources online
- 16 publications
- 1 Community of Executive Directors of Latin America PRIs with 13 countries and 23 CEOs involved
- 2 communities on use of evidence in climate change policies and childhood policies
- 4 regional workshops on cutting-edge topics related to research and policy
- 6 online courses for Latin America: 94 PRIs trained on critical issues for policy influence and M&E
- 4 online courses for Africa and Asia: 48 PRIs trained on critical issues for policy influence and M&E
- 1 online course for Latin America policymakers working on childhood policies
- 5 peer assistance arrangements in Latin America with 7 countries involved
- 1 peer assistance arrangement between Africa and Latin America

Some capacity building results:

- Grupo Faro's collaboration with CIPPEC—including the use of CIPPEC manuals and toolkits on how to achieve policy influence, as well as participation in, and joint organization of, events—has given GF insights which it has been able to apply in its own theoretical and practical work. For example:
  - GF applied these insights when it collaborated with CIPPEC, GDN, and the Think Tank Initiative in appraising policy research institutes that had applied to the Think Tank Initiative for grants. GF has been further developing these ideas in an ongoing empirical and theoretical study of think tanks' influence on policy (Ordonez et al., 2012).
  - Through action research, GF has re-evaluated its own strategies for achieving policy influence.
  - In 2011 GF participated in the Africa regional meeting of Publish What You Pay: jointly with the Accountability Initiative and Revenue Watch, GF advised PWP on how to use the information PWP collects (most of which is in the public domain) to influence policy-making.
- Based in Cameroon, Debazou Yantio is a Monitoring & Evaluation Specialist in the Congo Basin Ecosystems Conservation Support Program. Taking a CIPPEC online course on monitoring and evaluation and its application to policy-making enabled him to design and implement an M&E plan for the water and sanitation project he was working on (which formerly had no such plan), and to propose remedial actions to management in response to problems that the M&E identified. Debazou has shared his experiences informally with other evaluators. He has been in discussion with CIPPEC to jointly organize a face-to-face workshop session on evidence-based decision-making for evaluators at the 2014 African Evaluation Association Conference.

3. The connector role

Who are/were connected?

The project connects individuals and institutions in the policy research community with one another and with other individuals and bodies engaged in public policy-making and debate.

How and why were they connected?

Would you characterize the demand for knowledge as fragmented, or focused? Why is this?
As the project expanded into Africa and Asia, CIPPEC found more similarities than differences in the demand for its services—i.e. many expressed needs, challenges, and opportunities are common across the three continents. Institutional capacity tends to be weaker in many of the African think tanks but they want essentially the same types of knowledge as CIPPEC clients elsewhere. Thus in the context of this project, we could characterize the demand for knowledge as relatively focused.

Would you characterize the supply of knowledge as fragmented, or focused? Why is this?
The supply of this type of knowledge is not really fragmented but is rather thin—very few institutions are providing this knowledge (IDRC's TTI and CIPPEC/GDN's "Spaces" project are the main sources). At the moment we could therefore characterize the supply as being fairly focused.

Case Study 2 - CIPPEC

Other observations and lessons

- To build commitment within a community of practice it is necessary to provide its members with tangible benefits such as training, technical assistance, face-to-face meetings, or research funding. Continuity of engagement is important.
- Online courses are a very cost-effective capacity building strategy in LA, and have opened markets in Africa and Asia.
- Development of an online training platform has kept costs down while broadening scope.
- Production of local knowledge is key to understanding the main challenges for the use of research in policy-making in LA.
- Demand is high for peer assistance in LA, Africa, and Asia, especially through face-to-face meetings, and for initiatives in specific fields and policy areas (climate change, childhood policies).
- Socialization of practitioners' knowledge (through online forums, virtual communities, workshops, cases in books, etc) is an effective way to reflect on current practices and improve individual and organizational capacities.
- Monitor and evaluate project activities to learn lessons and make improvements.

Some reasons why the "Spaces" project is effective:

- CIPPEC and GDNet have built a long-term relationship of mutual trust and mutual learning
- The project is responsive to the particularities of organizations and contexts
- The project has adapted cutting-edge literature to the contexts and capacities in developing countries.

Key challenges

- Create greater synergies among the various platforms, newsletter, and other communication tools.
- Strengthen the commitment of policymakers through promoting a culture of the use of evidence.
- Strengthen researchers' ability to influence public policies.
- Sustain the network.
- Develop a specific strategy for capacity building, establishing clear goals, integrating efforts, and ensuring continuous M&E.

Sources and contributions to this data sheet

Documents reviewed

- CIPPEC website at http://www.cippec.org/Main.php?do=newsArticlesShow (accessed June 12, 2012).
- CIPPEC, "Learners, Practitioners, and Teachers: A Handbook on Monitoring, Evaluating, and Managing Knowledge for Policy Influence." Available at http://www.vippal.org/brochure/archivos/learners_practitioners_and_teachers.pdf
- CIPPEC/GDN, "Spaces for Engagement: A Joint Initiative between GDN and CIPPEC." Available at http://www.vippal.org/brochure/?l=en&ref=kp&ref2=br
- CIPPEC, "Spaces for engagement: Using knowledge to improve public decisions. A joint initiative between GDNet and CIPPEC. Powerpoint presentation, February 2012. Available at http://www.vippal.cippec.org/media/actividades/spaces_for_engagement_nigeria.pdf
- Ordonez, Andrea, Orazio Belletini, Enrique Mendizabal, Emma Broadbent, and Jeanne Muller, "Influencing as a Learning Process: Think Tanks and the Challenge of Improving Policies and Promoting Social Change."

Case Study 2 - CIPPEC

Grupo Faro, June 2012. Powerpoint presentation for Think Tank Initiative Exchange available at http://www.scribd.com/doc/98881886/Influencing-as-a-learning-process. Paper in preparation.

Authors Contact:
Leandro Echt, CIPPEC. Phone +5411 4384 9009. Email: lecht@cippec.org
Vanesa Weyrauch vweyrauch@cippec.org

Additional Contacts:
Debazou Yantio, Monitoring & Evaluation Specialist, Congo Basin Ecosystems Conservation Support Program, Cameroon. Phone +237 2231 0078. Email: yantio@hotmail.com
Andrea Ordonez, Research Director, Grupo Faro, Ecuador. +593 2 245 6367/601 5395, ext 16. Email: Aordonez@grupofaro.org

Box: Sample Testimonials

For online courses

"The contents of the course will be useful for the formulation of our influence plan and to share the knowledge acquired in the course with other CSOs." Octavio García Ramírez, Consejo Nacional de los Jóvenes, México

"I was able to apply the tools in the real field of policy. I used the theories and conceptual frameworks delivered in the training within the Child Health Now Campaign and shared new acquired skills with my field teams." George William Ebulu, World Vision Uganda, Uganda

"My policy worldview has been radically transformed after this course – and this will be beneficial not only to me, but my Institute." Awuor, Institute of Policy Analysis and Research, Kenya

"The course has enabled us to think (and re-think) the influence objectives the different members from FPVS pose, therefore defining the priorities of our policy working plan." Celeste Bustelo, Fundación Pro Vivienda Social, Argentina

For regional workshops

"I am sure that what I learned will round up in an internal exercise within Fedesarrollo and in diffusion to other Colombian organizations." Paula Acosta, Fedesarrollo, Colombia

"The workshops in Buenos Aires were very useful and I would like to highlight the job done in the months before the workshop (diagnosis of the M&E in our own organization) which allowed the systematization of the experiences we already had. The workshop itself was a very good opportunity to get in touch with other organizations of Latin America which have similar interests, strengthening the network between them." Luis Carrizo, CLAEH, Uruguay
For peer assistance

"Learning from better practices and mistakes of a more expert organization has been a great help to reinforce or re thinking strategies which I had thought to take in my area and my organization." Liseth Estévez, Director of Communication, Grupo FARO, Ecuador

"Besides learning about tools for monitoring and systematization of information and strategic communication, working together was a great opportunity to develop stronger links between both organizations and build future connections." Rosibel Kreinmann, Nitlapan, Nicaragua

Case Study 2 - CIPPEC

Debazou Yantio interview, July 2, 2012

Many evaluators identify problems and lessons in their work but do not realize how they can use their findings to influence policy decision-making. Taking a CIPPEC online course on monitoring and evaluation and its application to policy-making enabled Debazou to design and implement an M&E plan for the water and sanitation project he was working on and to propose remedial actions in response to problems that the M&E identified.

He first heard about CIPPEC and its online courses through a colleague who saw an advertisement for an online course on designing instruments for M&E. He undertook the course, obtaining funding to cover the course fee as the result of a competitive selection process

At the time he was working on a water and sanitation project that had no monitoring and evaluation plan. What he learnt on the course about M&E instruments enabled him to create and implement such a plan. Findings from M&E showed that the project needed to adjust its responses to several problems. Given what he had learnt on the course about making evaluation findings usable for policy and management decision-making, he was able to draft a plan for remedial action.
He has shared his experiences informally with other evaluators. He hopes to develop, with CIPPEC, a face-to-face workshop session for evaluators on evidence-based decision-making at the African Evaluation Association Conference in 2014. He believes a big opportunity exists for coaching think tanks in Cameroon and Central Africa to render their monitoring and evaluation findings useful for policy decision-making. A good way to spread the word of CIPPEC's work to evaluators in Africa would be through the African Evaluation Association.

Andrea Ordonez interview, July 2, 2012

Grupo FARO's interactions with CIPPEC have been mainly within Latin America thus far, sometimes as a participant in CIPPEC online networks and courses, sometimes as a partner. For example, the two collaborated in creating the Community of Executive Directors of Latin American PRIs and in organizing workshops on measuring policy impact and on translating research findings for use in policy debates. The collaboration with CIPPEC, including the use of CIPPEC manuals and toolkits on how to achieve policy influence, has given GF insights which it has now been able to apply in its own work and in other interactions. For example:

- GF applied these insights when it collaborated with CIPPEC, GDN, and the Think Tank Initiative in appraising policy research institutes that had applied to the Think Tank Initiative for grants. GF has been further developing these ideas in an ongoing empirical and theoretical study of think tanks' influence on policy (Ordonez and others, 2012).
- Through action research, GF has re-evaluated its own strategies for achieving policy influence.
- In 2011 GF participated in the Africa regional meeting of Publish What You Pay: jointly with the Accountability Initiative and Revenue Watch, GF advised PWP on how to use the information they collect (along with information in the public domain) to influence policy-making.

GF works with a wide range of organizations including CIPPEC and Fundar, the Mexican PRI, to organize learning groups between CSOs and research organizations on different topics, for example how to exercise civic oversight over the extractive industries. These efforts have now extended in Africa and Asia, having started in LA.

Case Study 3 - OMAFRA/University of Guelph

K* Case Study Name	***Agri-Food and Rural Link – Knowledge Translation and Transfer Program, University of Guelph and the Ontario Ministry of Agriculture, Food and Rural Affairs***
Authors	***Bronwynne Wilton (University of Guelph), Elin Gwyn (OMAFRA)***

Q1. What were the client contexts that generated demand for knowledge?

What were the challenges and knowledge demand the clients faced at the beginning?

The University of Guelph has a well established capacity to do agricultural, food, bioeconomy, agri-environmental, and rural development research and has a long history of supporting these sectors by developing knowledge. http://www.uoguelph.ca/research/omafra/

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has a process that sets research priorities for knowledge for this sector (OMAFRA Research Advisory Network (ORAN) www.omafra.gov.on.ca/english/research/oran/oranindex.htm#background). ORAN is a network of advisory bodies that identify emerging research priorities in seven research theme areas.

The Knowledge Translation and Transfer (KTT) Program was designed to link the demand for knowledge with the supply of knowledge to develop processes and products to accelerate the transformation of knowledge into use.

The client contexts are varied depending on the specific sector within the agri-food system. Examples of stakeholders with a demand for knowledge include program and policy staff within OMAFRA, farm commodity groups (e.g. Dairy Farmers of Ontario), broader membership-based groups (e.g. Ontario Federation of Agriculture), private industries related to the food processing and marketing sector, rural municipalities, and individual farmers. Current research knowledge was required to facilitate innovation within the Ontario agri-food system that would allow the province of Ontario to remain competitive in this sector while also meeting societal goals of environmental sustainability and a highly-educated workforce. The challenges faced by stakeholders in the agri-food sector were related to being able to access and connect with researchers and with the research knowledge that was being generated through the OMAFRA-U of G Partnership research program.

How have the responses evolved, and what was the nature of knowledge brokering in the process?

In April 2008, OMAFRA and the University of Guelph signed a new ten-year partnership, with a review required after the first five years. Through the partnership agreement, the University will receive $300 million to support a research program of agriculture, food and rural sector, veterinary clinical education, an animal health laboratory, and an agriculture and food laboratory. Under this Agreement there are seven research themes covering a robust agri-food and rural research enterprise at the University of Guelph. They are:

- Agricultural and Rural Policy

1 All dollar amounts quoted in this case study are Canadian dollars.

Case Study 3 - OMAFRA/University of Guelph

- Bioeconomy – Industrial Uses
- Emergency Management
- Environmental Sustainability
- Food for Health
- Product Development and Enhancement through Value Chains
- Production Systems (Livestock and Plants; this theme is essentially two themes under one umbrella)

OMAFRA and what is now the University of Guelph (U of G) have been working together since 1874 when the institution was established as the Ontario Agricultural College, with the shared goal of producing an efficient and productive agri-food system in Ontario. Over this period there has been institutional changes, relationships and the types of engagement. During the 1990's engagement between researchers and academics decreased, resulting in a level of separation between the knowledge producers and interested stakeholders. In order to reinvigorate and enhance the level of knowledge translation and transfer related to the Partnership research programs, the 2008 agreement between OMAFRA and the U of G included an investment to focus on increasing capacity and understanding of effective knowledge mobilization initiatives. These initiatives also included creating shared understanding of the research users needs, encouraging the collaboration among institutions and among industry stakeholders, and increasing the capacity of the U of G faculty for engagement in knowledge translation and transfer efforts.

This investment in knowledge translation and transfer in 2008 consisted of a $5 million, one – time funding (2008-2013) allotment within the overall OMAFRA-U of G Partnership Agreement. The Knowledge Translation and Transfer (KTT) Program involves enhancing and facilitating knowledge networks, the development and administration of a KTT-specific funding program, the development and application of tools to translate knowledge into use more quickly and effectively, enhanced communications such as plain language research summaries and videos, and dedicated staff to act as facilitators and knowledge brokers. The OMAFRA-U of G Partnership KTT program developed a branding for the program known as the Agri-food and Rural Link, which has become known as the hub for KTT for the Partnership.

Knowledge Translation and Transfer (KTT)

OMAFRA and the University of Guelph have a long history of working with farmers and other agri-food representatives to ensure that ministry-funded research is meeting current needs and that the results of research are quickly and effectively transferred to the people who can utilize it. Many ministry staff and university researchers have close working relationships and continually engage in activities that support knowledge translation and transfer. This tradition is particularly strong in research areas under the Production Systems theme but also active in many of the other themes.

Over time, the scope of issues being addressed by research has broadened greatly. The seven research themes referred to above reflect this new reality and complexity. The list of stakeholders for ministry-funded research has grown to include the food industry, rural communities, and emerging bioproduct value chains. Issues are increasingly complex and impact multiple stakeholders. New information management and communication technologies have emerged providing efficient possibilities for delivering KTT. During the negotiation of the current OMAFRA-UofG Partnership Agreement, the partners jointly recognized that Ontario's strong tradition of extension services and technology transfer could be built upon and enhanced through the exploration and application of different models and best practices of knowledge management from other jurisdictions. Additionally, a renewed and broadened commitment to KTT was therefore necessary. One of the strong pillars that the current KTT program was built on is that of 'extension', which can be defined as: knowledge-intensive actions associated with specialized information, learning, and communication.

In the OMAFRA/UofG Agreement, knowledge translation and transfer is defined as follows:
… the synthesis, exchange and application of knowledge (resulting from interactions among one or more of the university, university researchers, OMAFRA, various internal and external stakeholders of the University of Guelph

and OMAFRA, and various members of the public) involving dissemination of the results of research and other activities occurring pursuant to the agreement.

In other words, "KTT" or "knowledge translation and transfer" are processes used to accelerate the transformation of knowledge into use.

Q2. Goals, activities and results: what knowledge was connected, among whom, in which arrangements, producing what results?

What were the institutional set-up and funding arrangements for this work?

Dedicated staff work on KTT at both the University and OMAFRA. Two Knowledge Mobilization Program Managers were hired through the one-time investment into KTT to work in the Office of Research at the University: both are on full-time contracts tied to the 2008-2013 timeframe. The funding for KTT was administered by the University's KTT staff to support several key initiatives such as a funding program, networking events, enhanced communications, and knowledge brokering activities. Further details on these activities are described below. In addition to overall KTT program management, each of the Knowledge Mobilization Program Managers took the lead responsibility for KTT related to specific OMAFRA-U of G Partnership research themes.

On the OMAFRA side of the Partnership, three Research Analysts within the Research and Innovation Branch were assigned direct responsibility for KTT initiatives. The reorganization of the Research and Innovation Branch was timed with the renewal of the Partnership Agreement. During the reorganization, the Innovation and Knowledge Management Unit was formed with dedicated research analysts working exclusively on KTT.

What specific efforts were involved, what did they intend to achieve?

One of the first changes initiated through the renewed emphasis on KTT within the OMAFRA-U of G Research program was to add a requirement to the research proposal process for researchers to clearly articulate a KTT plan associated with their research project. This was intended to encourage researchers to identify and if possible to engage with the intended audience for their research. For example, a research project looking at the environmental impact of different cropping systems should engage with primary producers and with the appropriate environmental agency with an interest in environmental quality in the region under study. .

A second important change was the development of a funding program aimed specifically at KTT projects that would facilitate the mobilization of research knowledge into use. Four calls for proposals that were open to U of G faculty and staff were held between 2010 and 2012. Collaborations with OMAFRA staff and external industry stakeholders were highly encouraged for the KTT proposals. Overall, approximately $3million was invested in more than 60 projects covering topics related to all seven of the OMAFRA-U of G research themes. The KTT projects funded through this program were creative examples of knowledge mobilization and were quite different compared to the traditional academic outputs typically generated by researchers. Some examples include Smartphone applications; social media outreach techniques, creative workshops and learning models, video communication tools, and plain language summaries. These projects were intended to facilitate creative collaborations between knowledge producers and knowledge users in order to accelerate the transfer of knowledge into use.

A third area of effort went towards the planning and implementation of research knowledge exchange events. These events have taken on different formats depending on the research theme and the intended objectives of the event. For

example, a knowledge exchange event held for the Agricultural and Rural Policy theme had as an objective to simply facilitate interaction and discussion between researchers and policy-makers with the intended outcome that these two groups would work more collaboratively together on future research projects. Other events, such as the Emergency Management Knowledge Expo, had as an objective to engage with industry to ensure that researchers understood the specific and time-sensitive needs of industry stakeholders. These events also serve as a vehicle to share and disseminate current research knowledge that has been generated through the Partnership research programs. Evaluations of these events indicate that there is a high level of satisfaction from participants in terms of relevance and usefulness.

Several other key activities that took place through the KTT program have enhanced the level of communication and collaboration both within the OMAFRA-U of G Partnership and with the broader agri-food industry. A new website developed for the Partnership will include a searchable database of all research funded through the Partnership and will incorporate Web 2.0 technologies, such as interactive blogging tools, news feed, and social media tools. One of the core social media channels that has been integrated into the Agri-Food and Rural Link program is Twitter. Currently @AgFoodRuralLink has close to 1,000 followers including a vibrant and active agri-food Twitter community and links with other knowledge mobilization Twitter accounts. The use of social media was intended to achieve a closer connection with stakeholders through the development of a greater understanding of current issues related to the sector. A secondary intent was the development of a channel for the rapid dissemination of research news and content. For example, a plain language summary of research can be 'tweeted' instantly to followers.

A KTT toolkit is also under development with three core components already in use by the intended participants. The KTT plan for the research template has been used for two consecutive calls for proposals and has gained acceptance by the research community. A plain language poster template was developed for graduate students to encourage them to translate their research into meaningful terms for the target audience. This template has been widely used at the knowledge exchange events with a very high level of satisfaction from both the students using the template and from the audiences participating in the poster displays. A plain language summary template has also been developed in collaboration with the Institute for Community Engaged Scholarship at the U of G and with Research Impact, currently based at York University in Toronto. This template facilitates the translation of complex research knowledge into a format that is readily understood by a broader audience. In addition to the poster and plain language templates, a student research communication unit at the U of G known as SPARK (Students Promoting Awareness of Research Knowledge) was engaged to create videos and popular media stories about current research to further enhance the transformation of knowledge into use across the areas of interest to the OMAFRA-U of G Partnership.

Who were the participants and what were the activities involved?

The participants in the OMAFRA-U of G KTT program include the knowledge mobilization program staff at both OMAFRA and U of G; researchers at the University of Guelph, program, field, and policy staff within OMAFRA; industry stakeholders, staff at other government agencies (e.g. Public Health Agency of Canada; individual producers; and graduate students. The activities include all of the ones described above plus specific cases related to individual KTT projects. For example, a KTT project that aimed to transferring knowledge about turf management to rural municipalities involved a turf researcher, a community capacity development researcher, graduate students, and staff from rural municipalities with responsibility for maintaining youth sports fields.

Case Study 3 - OMAFRA/University of Guelph

What are the results thus far - e.g. policy changes informed, capacity being built?

Changing the requirement for researchers to articulate a KTT plan for each project has been effective in terms of shifting the mindset of researchers to consider the application and impact of their research on the target audience. Evidence to indicate that this shift is happening is shown through the increased level of external industry collaborators involved in the research projects.

The expected results are that research knowledge will be readily available in more useful forms to broader audiences, which will facilitate the improved efficiency, competitiveness, and societal outcomes articulated by OMAFRA for the Ontario agri-food and rural sectors. The KTT program is also aimed at improving the processes that connect researchers with knowledge users and enhance our understanding of effective knowledge translation and transfer activities. The OMAFRA-U of G KTT program is aimed at a full-cycle knowledge exchange process where research users can be engaged in research projects early in the process as opposed to being receptors at the end of a project. Relationships and networks are encouraged and facilitated through the KTT program with the expectation that this will result in long-term and tangible results in terms of social, economic, and environmental outcomes for the province of Ontario.

Concrete evidence that the programme delivers outcomes is noted above. Some examples of these include:

- Shifting the mindset of researchers to consider the applications of their research on the target audience
- Producing a biosecurity video that has been embraced by agri-food producers across Canada
- Producing a smartphone application to inform producers about crop management practices in an effort to reduce unnecessary pesticide spraying
- The delivery of 'circle workshops' for municipal government staff and stakeholders – a process aimed at reducing conflict around agricultural and land use issues in rural communities
- Engaging with community stakeholders to understand the role of local food hubs for the long term sustainability of rural communities
- Producing a decision-tree for the handling of poultry that aimed at improving the welfare of the birds
- Fostering interdisciplinary approaches to the transfer of knowledge through the encouragement of collaborations across departments at the U of G and across institutions and with industry
- Engaging industry stakeholders with the research enterprise to facilitate the rapid uptake of research knowledge

Who are/were connected?

A wide variety of stakeholders in the agri-food sector have been connected through the focused delivery of the KTT program. The investment in staff dedicated to the role of knowledge brokering, at both the provincial government and at the U of G, has facilitated stronger relationships between stakeholders in the agri-food research enterprise and with researchers. This program is playing an important role in the transition of the more traditional agricultural extension which relied heavily on government funding and was often seen as one-way communication to the more collaborative 'public-private partnership' model where the relationships between stakeholders are integrated throughout the research and outcomes process. Therefore, the long-term goal of the OMAFRA-U of G Partnership KTT program is to foster innovation in the Ontario agri-food system through the rapid uptake of research knowledge.

Case Study 3 - OMAFRA/University of Guelph

How and why were they connected?

Would you characterize the demand for knowledge as fragmented, or focused? Why is this?

The demand for knowledge has become more focused through the ORAN process. Expert panels developed the long term priorities which are reviewed while research call for proposal requests are based on the priorities outlined. Also, through the KTT program, stakeholders and researchers have been connected through the deliberate emphasis on collaboration and involvement in the research process. Through collaboration, the transfer of knowledge is facilitated more efficiently as the user(s) of the research are involved in the project.

Would you characterize the supply of knowledge as fragmented, or focused? Why is this?

The supply of knowledge is both focused and fragmented. It is focused since the researchers develop knowledge in response to the research priorities. It is fragmented in that it is only one of many sources that may be used in addressing policy issues, recommended change in farming practices, food safety protocols, or the development of a new product from a lab scale to proof of concept phase.

Other observations, lessons

The OMAFRA-U of G KTT program was a new initiative developed through a one-time funding allotment as part of the provincial government's Partnership Agreement with the University of Guelph. Additionally the KTT program can be considered as a re-investment of resources and personnel into a long-standing history and culture of agricultural extension. As such, it was important within the new program to balance the traditional knowledge and experiences of faculty and OMAFRA staff with extension practices with new ideas and tools associated with 'knowledge translation and transfer'.

In 2008 when the program was established, it represented a new initiative and staff positions were created specifically for this program and related activities. This means over the past four years we were constantly in building, creating, and adjusting mode, such that we were often learning by doing in terms of developing our toolkits and processes. Although this can be challenging, the program and learnings were often enriched by this iterative process, particularly since we were able to draw on the strengths of both institutions.

One important lesson that cannot be under-emphasized is the importance of building a KTT network within the agri-food and rural sectors. Building on relationships with faculty, graduate students, research administrators, government policy and field staff, external stakeholders, and other KTT professionals has allowed this program to take advantage of the most current thinking and best practices in the knowledge mobilization field. These relationships are critical to the success of the KTT program's objectives which revolve around making publicly-funded research relevant to the agri-food sector, to policy, to commercial opportunities, and to societal priorities.

One interesting point of ongoing discussion in the KTT Program centres around finding the balance between the development of KTT research information products (summaries, posters, videos, briefs, synthesis documents, media releases) with KTT processes that focus on building connections, facilitating collaborations, partnerships and networks among knowledge producers and users. It is important to recognize that both of these somewhat divergent activities meet the overall objectives of a KTT program whereby the research information products can be used to facilitate the networking and relationship building activities which are ultimately the key to success of any given knowledge mobilization strategy.

Case Study 3 - OMAFRA/University of Guelph

As often happens when two institutions collaborate on program delivery, one of the critical pathways to success lies in the ability to bridge the institutional cultures of both organizations in order to find common ground and to agree on a shared vision and values for the program. In the OMAFRA-U of G KTT Program, we have the advantage of a long-standing partnership between the two institutions. Even with this, there are always opportunities to enhance the level of dialogue and collaboration while respecting the different institutional cultures within which we operate. The key lessons learned are to establish appropriate (flexible?) processes, to maintain a constant commitment to both the core goals of the KTT Program and a dedication to communication and problem solving, while also to constantly seek to recognize and respect the different institutional cultures that implement the joint program.

Sources and contributions to this data sheet

Bronwynne Wilton (University of Guelph)
Elin Gwyn (OMAFRA) Email elin.gwyn@ontario.ca

Case Study 4 - UNU-INWEH/IW: Science

K* Case Study Name	***IW: Science 'Enhancing the use of Science in International Waters projects to improve results'***
Author	***Andrew Dansie (UNU-INWEH)***

Q1. What were the client contexts that generated demand for knowledge?

What were the challenges and knowledge demand the clients faced at the beginning?

The IW: Science Project aims to enhance - through knowledge integration and information sharing - the use of science in the International Waters (IW) projects of the Global Environment Facility (GEF) and to cross-fertilize with outside water science, knowledge, and networks. The project was designed to help strengthen priority setting, knowledge sharing, and results-based, adaptive management in current and future IW projects.

This GEF-funded project implemented by UNEP and executed by UNU-INWEH is due for completion in December 2012. The project has been realized through the commitment of a global project team, representative of the complexity and interconnectedness of systems and knowledge within the IW portfolio. Listed below, these project partners comprise a highly specialized and interdisciplinary team, each bringing thematic institutional expertise relevant to an ecosystem class within the IW portfolio— river basins; lakes; groundwater; coastal zone/land-based pollution sources; and large marine ecosystems and the open ocean:

- UNEP Division of Early Warning and Assessment (UNEP-DEWA)
- UNESCO
- Scottish Association for Marine Science (SAMS)
- Land-Ocean Interactions in the Coastal Zone (LOICZ)
- European Lifestyles and Marine Ecosystems (ELME)
- UN-Water Decade Programme for Capacity Development (UNW-DPC)
- University of Plymouth
- United Nations University—Institute for Environment and Human Security (UNU-EHS)
- Canadian Water Network (CWN)

How have the responses evolved, and what was the nature of knowledge brokering in the process?

As one of the learning initiatives within the GEF International Waters portfolio, the IW: Science project was designed to conduct a review, analysis, and synthesis of the science behind 20 years of IW projects. This was undertaken using an approach akin to the writing of the IPCC Assessment Reports of the Millennium Ecosystem Assessment. Five groups of scientists, comprising experts both within and external to the IW projects, were assembled according to their areas of expertise in the five GEF IW system types; river basins; lakes; groundwater; coastal zone/land-based pollution sources; and large marine ecosystems and the open ocean. Both natural and social science expertise was considered when looking at the IW impact in the sustainable management of global transboundary water systems worldwide.

Case Study 4 - UNU-INWEH/IW: Science

Q2. Goals, activities, and results: what knowledge was connected, among whom, in which arrangements, producing what results?

What were the institutional set-up and funding arrangements for this work?

The IW: Science project was a GEF medium-sized project receiving US$ 1 million of funding from GEF, matched with US$ 1.029 million cofinancing (cash and in-kind) from the core partners listed.

What specific efforts were involved, what did they intend to achieve?

The final stage of the IW: Science process is the preparation of the GEF IW: Science Synthesis Report, bringing together the findings and efforts of the IW System Type Working Groups (Groundwater, Lakes, Rivers, Land-based Pollution Sources and, Large Marine Ecosystems and the Open Ocean). This report will serve to provide a global perspective on the state of challenges and pressures facing transboundary water systems, both freshwater and marine. The context of the Synthesis is the need and effective use of science to address these challenges and the translation of such science use to policy for multi-country management of shared water resources. The IW: Science Synthesis Report was formally launched at the inaugural GEF IW Science Conference in Bangkok, Thailand 24-26 September 2012.

Who were the participants and what were the activities involved?

The list of participants is noted above. The teams of scientists, with support from the core institutional partners, systematically inventoried, collated, analysed, and finally synthesized the science experience within the IW project portfolio. This approach was undertaken to allow the portfolio-wide integration of knowledge and subsequent formulation of science-based recommendations regarding critical emerging science areas, the application of science for adaptive management, and the development and use of indicators to support results-based project management.

The approach was to engage scientists at their level of expertise and field of work, and then roll that up in a synthesised final product to ensure a sound scientific basis and identification of interconnections between the water body types and scientific fields as much as possible.

What are the results thus far - e.g. policy changes informed, capacity being built?

The main outcome has been the uptake by the GEF of the principle that local scientific institutions must be included in the design and undertaking of the Transboundary Diagnostic Analysis (TDA) that then sets the design of the IW project proposal. TDA is a scientific and technical assessment, through which the water-related environmental issues and problems of a region are identified and quantified, their causes analysed and their impacts, both environmental and economic, assessed. The analysis involves an identification of causes and impacts at national, regional, and global levels and of the socio-economic, political, and institutional context within which they occur. They are used to identify priorities for joint action, root causes, and scope for the concerns or opportunities.

Case Study 4 - UNU-INWEH/IW: Science

Who are/were connected?

Various different actors are connected by the project depending on their need:

Corporate needs for the project:

- Experiential learning from IW projects needs to be converted to a "transferable" synthesis, benefiting ongoing and new projects
- GEF needs to ensure that IW projects are based on contemporary science (not 15-20 year old science)
- GEF needs to identify the gaps in existing water science pertinent to IW projects, and help address them
- Results-based management for the IW portfolio needs to be based on contemporary/cutting edge science
- Strategic prioritizing for GEF-5 needs to be based on a scientific assessment

User needs for the project:

- IW projects need to be better informed about contemporary science, as well as identifying project-relevant research needs
- Synthesis through a broader scientific community needs to drive solutions for IW projects, help identify appropriate technologies and practices and facilitate adaptive management
- Developing countries need to ensure their capacity to develop and sustain their scientific know-how related to IW projects
- Based on a scientific gap assessment of the IW projects, the portfolio needs to identify ideas for targeted research
- Science-policy links and bridges need to be enabled—particularly based on a broader scientific synthesis

How and why were they connected?

Would you characterize the demand for knowledge as fragmented, or focused? Why is this?

The demand for knowledge is fragmented in the sense that every transboundary water system faces unique characteristics, grouping of countries that share it, and pressures on the water body.

Would you characterize the supply of knowledge as fragmented, or focused? Why is this?

In its current state the supply of knowledge is fragmented, drawing from the findings and efforts of the IW System Type Working Groups (Groundwater, Lakes, Rivers, Land-based Pollution Sources and, Large Marine Ecosystems and the Open Ocean). This report will serve to provide a global perspective on the state of challenges and pressures facing transboundary water systems, both freshwater and marine. The context of the Synthesis is the need and effective use of science to address these challenges and the translation of such science use to policy for multi-country management of shared water resources. GEF's need for a synthesis of all their IW projects to assist with managing such a broad array of issues and geographical locations under their 'International Water' portfolio meant that the role of the project was to bring a degree of focus to the supply of knowledge.

Other observations, lessons

Behind IW: Science, KIM-UNU, "Knowledge Integration and Management—United Nations University" is the name of the technology platform developed by UNU-INWEH in partnership with the Centre for Community Mapping as a powerful and user-friendly knowledge management system. The platform has been developed in recognition that often there is a wealth of knowledge and information, representing a significant investment of development funds and project implementation that is not readily accessible, let alone capable of integration.

Author Contact: ***Andrew Dansie,*** (UNU-INWEH) Email: andrew.dansie@unu.edu

Case Study 5 - GDNet

K* Case Study Name	*GDNet: From Knowledge Hub to Knowledge Broker?*
Author	*Shahira Emara (GDNet), Andrew Clappison (CommsConsult)*

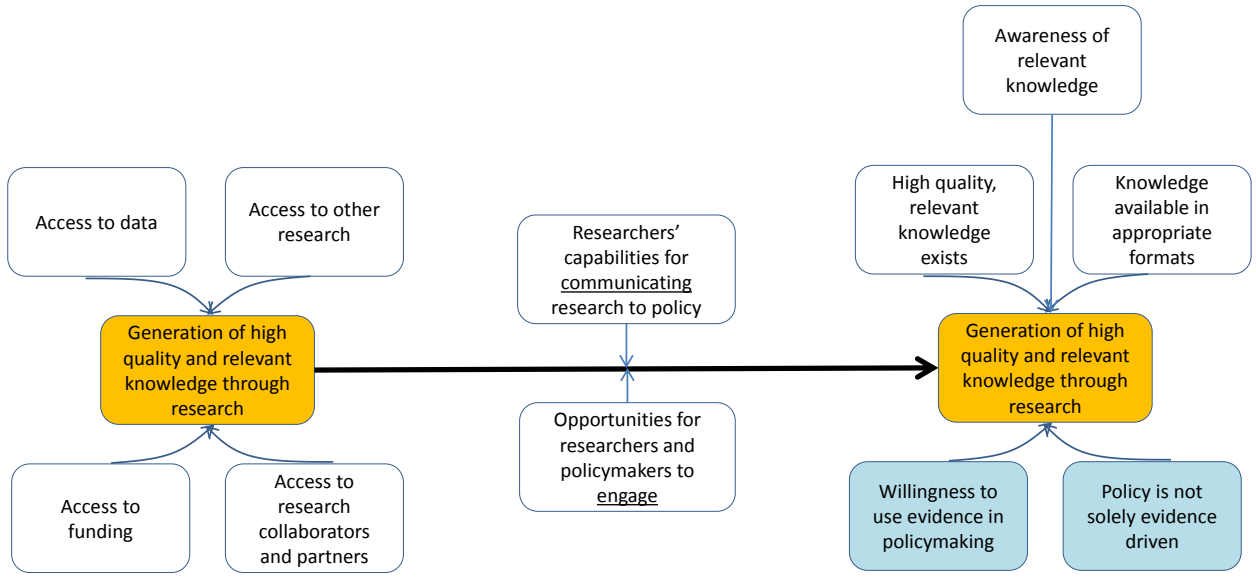
Q1. What were the client contexts that generated demand for knowledge?

What were the development challenges and knowledge demand the clients faced at the beginning?

Researchers in developing and transition countries (often referred to as "the South") have valuable knowledge to contribute to decisions being made about development in their countries and elsewhere. But they face challenges in being heard by government staff and other people involved in policy-making. They may lack confidence and ability to communicate their research effectively, lack adequate resources and capacity to disseminate, lack access to academic journals that they need for their research to be published, or face closed institutional cultures.

GDNet, the knowledge service of the Global Development Network (GDN) , was set up in 1999 to provide networking opportunities and financing for researchers in Southern countries and an online repository through which they could share their work.

GDNet subscribes to the premise that good policy research, properly applied, can accelerate development and improve people's lives through informing better policy-making. Its overarching theory of change is that by supporting better research in developing and transition countries and communicating that research within the research community, and hence to policymakers, will lead to better policy-making in those countries (see chart below):



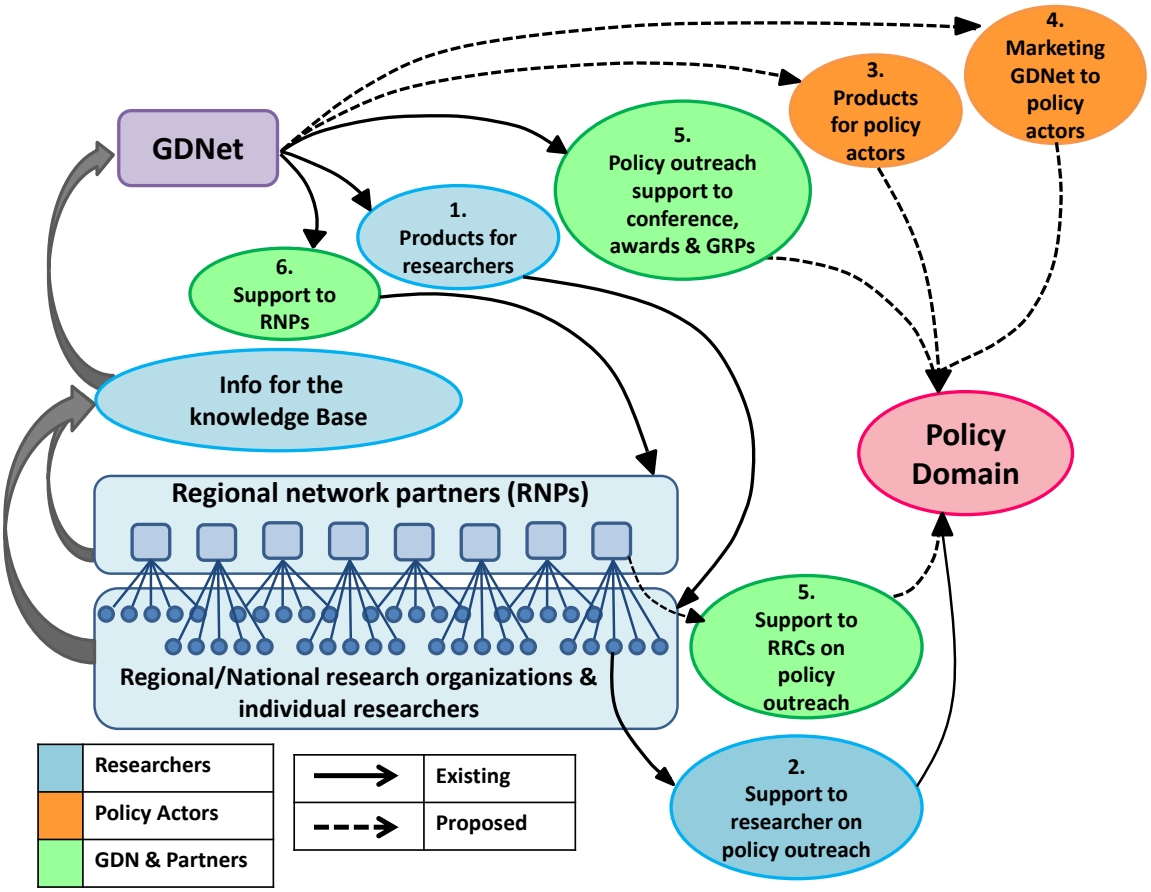
1 GDN is an independent international organization that allies researchers and institutes in development globally. Founded with support from the World Bank, GDN now receives support from governments, multilateral development agencies, private corporations, and foundations. The GDN Board is managed by prominent researchers with distinguished records of informing development policy debate. Each of GDN's regional network partners and international research organizations selects its own representative at the Board. GDN is now headquartered in New Delhi, with offices in Cairo and Washington.

Case Study 5 - GDNet

How have the responses evolved, and what was the nature of knowledge brokering in the process?

Over time, GDNet's goals have evolved to become more focused on promoting the use of research findings in policy-making. A 2009 review of GDNet , undertaken for the UK Department for International Development (DfID), played a role in motivating this shift; it suggested that GDNet should shift its focus from being a knowledge hub to being a knowledge broker in order to meet its aim of influencing policy-making.

Though GDNet maintains its emphasis on the supply side (i.e. in support of producers of research), it has begun to address the demand side of knowledge brokerage through initiatives such as that with the Center for the Implementation of Public Policies Promoting Equity and Growth (CIPPEC), "Spaces for engagement: using knowledge to improve public decisions." The stated aim of GDNet's Director is "to position the program as an internationally recognized focal point/knowledge broker for development research to inform policy debate, connecting producers with the potential end-users of research" (see chart below).



2 Barr, Julian, "Global Development Network: Output to Purpose Review." July 2009. The review noted that "while a real strength of GDNet is its own repository of information in the knowledge base, together with the access it provides to other online sources, GDNet should not be seen merely as an online store of knowledge. This assigns an overly passive role to GDNet, that will not enable it or GDN to meet their policy-level objectives [of improving researchers' effectiveness in influencing policy]. To better act as a knowledge service with outreach to actors in policy processes….GDNet needs to undertake more active marketing of its services—targeting new users in the policy shaping and making arenas, and to gain a better understanding of, and then act on, the information preferences of these policy actors."

Case Study 5 - GDNet

Q2. What knowledge was connected, among whom, in which arrangements, producing what results?

What were the institutional set-up and funding arrangements for this work?

Operating from Cairo; hosted by the Economic Research Forum (ERF); and funded by the UK Department for International Development (DfID), the Netherlands Directorate General for International Cooperation (DGIS), and the World Bank, the GDNet Knowledgebase and its capacity-building workshops are delivered in partnership with GDNet's seven regional network partners.

What specific efforts were involved, what did they intend to achieve?

The overarching aim of GDNet is to foster better use of development research from the global South by the diverse research and policy audiences. The logical framework of GDNet's current phase of funding (2010-14) outlines GDNet's intended outputs as follow:

- Better informed Southern researchers in terms of current ideas and knowledge
- Improved ability of Southern researchers to communicate their research to policymakers
- Increased knowledge networking with policymakers and among researchers
- Better communication of research to different identified audiences
- Learnt and communicated lessons about knowledge brokering best practice in the Global South.[4]

GDNet supports researchers and their research findings to reach as wide an audience as possible so that development decisions are more likely to be informed by the best available local knowledge. It does this through:

- Fostering Southern ownership, such that GDNet's objectives are aligned with its regional partners' objectives, and activities are jointly planned and monitored. GDNet links institutes and researchers in developing countries into a global network to showcase their work.
- Promoting and strengthening a Southern voice. GDNet provides channels to communicate research from and for the South, together with a well established network of global and local partners.
- Strengthening communications capacity targeted at researchers and research institutes through training and professional support in knowledge management and research communications to inform policy debates.
- Empowering researchers from the Southern countries to access global knowledge (including through access to journals and data sets) and to engage in development policy debates to supply decision-makers with evidence-based research.

Sharing knowledge: The GDNet Thematic Windows, launched in 2011, organize research papers and researcher profiles from the GDNet Knowledgebase to reflect 23 major policy and development-related topics, from agriculture to urbanization.

Linking research to policy: GDNet has developed with CIPPEC a series of online courses to build policy-influence plans and a special platform to debate issues of critical importance to executive directors of think tanks in Latin America. It has worked with the Economic Research Forum to produce a collection of papers, policy perspectives, and reports. GDNet also organized a two-day workshop for Asian researchers on public expenditure management on how to influence policy decisions in their respective countries.

3 Source: http://kdid.org/kmic/connecting-researchers-global-south-those-power-make-difference:

Case Study 5 - GDNet

Building confidence: Under GDNet, more than 1,200 researchers have benefited from regional knowledge management and regional research communications training events in Latin America, Africa, the Middle East and North Africa, and South Asia. Assessments of recent workshops show they significantly increase participants' confidence and ability to communicate research to policymakers.

Working in partnership: A core element of GDNet's program is forging suitable partnerships to extend the reach and impact of its work. For example, GDNet's Latin American Partnership Program with CIPPEC has become a valued source of expertise in the region on how to improve the use of research in public policy.

Who were the participants and what were the activities involved?

GDNet has more than 12,000 individual network members and links some 4,500 organizations. It connects producers of policy-oriented research in developing and transition economies with potential end-users of their findings (policymakers, think tanks, civil society organizations), who may find it difficult otherwise to access such knowledge.

GDNet undertakes knowledge brokering through a suite of online and offline services:

- Sharing knowledge:
  - The GDNet Knowledgebase is a comprehensive internet portal to development research produced in developing countries (www.gdnet.org/~knowledgebase). Free to use, it features more than 18,000 research papers classified thematically and regionally and accompanied by clear conclusion-based summaries.
  - A range of free online services, such as access to academic journals, important datasets and funding opportunities news, which provides updates on the latest research funding opportunities worldwide.
- Building Research Communications Capacity:
  - GDNet provides training workshops in partnership with leading training providers covering research uptake and policy-influencing strategies, including communications strategies;
- Networking and partnerships:
  - The online network brings together 12,000 individual researchers to work in selected groups on research programs. Through GDNet community groups it fosters an online collaborative workspace for researchers, knowledge networks, and intermediaries to work together on research projects/ themes.
- Supporting research generation through access to information and knowledge resources:
  - Free access to normally subscriber-only online journals. Free hard-copy document delivery is also available. GDNet has also assembled a comprehensive listing of publicly accessible, non-subscriber journal services, many of which have their own eligibility criteria.
  - An online knowledge base of development research articles produced in developing and transition countries, accompanied by clear conclusion-based summaries written by GDNet.
  - Access to the GDN library of papers produced as part of GDN activities or that have been funded by GDN.
  - Access to online data. The GDN Data Initiative is working with the World Bank's Development Data Group to provide access for eligible researchers to two important databases: Global Development Finance and World Development Indicators.
  - o Information on funding opportunities, including the fortnightly free GDN Funding Opportunities Newsletter, which is emailed to researchers who have created a researcher profile in the knowledge base.
- Communicating and promoting the communication of research, as well as acting as a stock of knowledge, the GDNet knowledge base helps link researchers and research institutes:
  - The knowledge base contains profiles of 12,000 researchers and 4,800 research organizations.

- The regional windows, coordinated by GDN regional network partners (RNPs) and the GDNet Cairo team, support the linkage of individuals and organizations both through regionally specific web portals and events such as RNP conferences and face-to-face meetings (many of these regional windows are bilingual).

- Assisting research institutes to better communicate their research, for example through:
  - Training and skills-building workshops in Africa, South Asia, and Latin America to enhance the knowledge management and research dissemination capacity of research institutes and networks.
  - Online resources that GDNet has developed for knowledge managers in Southern institutes, to help them disseminate research knowledge. These resources remain in a development stage, but include: tools for realizing dissemination strategies, web-building dissemination toolkits specifically for research organizations facilitating access to information for researchers, and a community of practice for knowledge managers.

What are the results thus far – e.g. policy changes informed, capacity being built?

Some measured outputs:

- The GDNet knowledge base holds some 18,000 documents, packaged into regional and thematic portals, helping researchers to find information more easily.
- GDNet's community groups act as an online collaborative workspace for researchers, knowledge networks, and intermediaries to work together on research projects/themes.
- GDNet knowledge services provide access to more than 1,000 free journals; 33,000 subscribers receive the Research in Focus newsletter; 8,500 subscribers receive the Funding Opportunities newsletter; and the knowledge base is available as a free public good.
- Strong partnerships are maintained with leading training providers in developing regions (e.g. CommsConsult (Africa) and CIPPEC (Latin America)). These enable researchers to develop the confidence and ability to communicate their research to wider audiences, specifically to inform policy processes.

3. The Connector Role

Who are/were connected?

Researchers who need support in communicating their findings to national, regional, and international audiences, and potential end-users of research (i.e. policymakers and civil society), who find it difficult to access research information generated in developing and transition economies.

How and why were they connected?

Would you characterize the demand for knowledge as fragmented, or focused? Why is this?
Fragmented. GDNet serves different researchers in different fields and countries and not all wanting the same types of knowledge from GDNet.

Would you characterize the supply of knowledge as fragmented, or focused? Why is this?
Fragmented. The avalanche of research networks and knowledge intermediaries makes it very difficult for researchers to reach the final target audience of policymakers. Hence, in 2012, GDNet launched a new campaign to encourage

members of the development research and policy communities to adopt a more inclusive approach to southern researchers' knowledge. The Connect South campaign calls on people and organizations working in development to pledge their support and re-establishes GDNet's own commitments to southern researchers as agents of change.

Other observations, lessons[5]

GDNet has delivered a wide range of well received services to researchers over the years. GDNet has created a number of highly valuable regional partnerships, developed a knowledgebase of Southern research that contains thousands of documents, and developed the basis for an online community of more than 12,000 researchers. In other words, GDNet has been highly successful in delivering the 'supply-side' of knowledge brokerage.

GDNet has a powerful information network in place, and better brokerage might be achieved by shifting its structure towards a more formal knowledge network. (This shift might not be possible in all regions and an alternative course of action for GDNet would be to provide much more demand-oriented knowledge-brokerage services, removing the focus from the network.)

In the GDNet context, a number of issues would need to be considered in the shift from information network to formal knowledge network:

- Sustainability of capacity building efforts: Developing the network through ongoing capacity building and the development of new strategies provides the promise of more longstanding impact, but donors want value for money and quick results that might be more likely to be delivered in the short term if GDNet becomes the broker itself (success is not guaranteed in either case).
- Knowledge services versus advocacy: Sections of the research community are very nervous about knowledge brokerage, aligning it with advocacy, which in turn is seen to dilute the 'neutrality' of the research uptake process. If GDNet takes on this role directly then it may lose credibility in the eyes of some. However, investing in the network and allowing partners and actors across the network to take up this role creates a degree of separation that the research community may feel more comfortable with.
- Nature of regional partnerships and networks: Developing GDNet's partnerships and networks so that they reflect a greater concern with demand-side activities is likely to depend on making the network more 'social' through better engagement practices. In Latin America, initiatives are already underway to achieve this through theme-based online communities, but in the African context it is possible that this approach will not be popular among researchers. These partnerships and networks will continue to be resource-dependent, and it may be difficult to sustain a formal knowledge network on this scale, In which case, direct brokering activities by GDNet may be required to deliver key outputs.
- GDNet and cultural change: GDNet has learnt over the years that it is important to be responsive to partners' needs, and to create synergies based on these. To ensure that GDNet maximizes its responsiveness as an organization, within differing contexts, GDNet is using a number of means to "learn as it goes." These include a reflective learning log, a theory of change, a more reflective M&E structure, more audience-focused research, and strategic use of external experts (to help develop synergies between partners).

Other observations

- Networks are made up or affected by both human and non-human influences (e.g. quality of Internet connectivity and cultural context).
- Networks have a lifecycle that mirrors their changing function (they are constantly changing and emerging).

4 Source: Reproduced from Andrew Clappison, KStar Conference Brief.

Case Study 5 - GDNet

- Knowledge brokering cannot always be seen as the precursor to change (policymaking is non-linear).
- Networks don't exist unless relations are repeatedly refreshed, and this means strategies need to be implemented to ensure different elements of the network are held in place.
- The 'social' provides a powerful force that shapes the way learning takes place. Social groups ensure that network relations are repeatedly performed and reinforced, but this element can materialize in different forms, through various means (online collaboration, face-to-face meetings).
- Southern researchers may shy away from using social media tools to communicate the results of their research.

Sources and contributions to this data sheet

Documents reviewed:

- Barr, Julian, "Global Development Network: Output to Purpose Review." July 2009. ITAD for the UK Department for International Development. Available at http://depot.gdnet.org/cms/files//GDNet_OPR.pdf
- Clappison, Andrew, KStar Conference Brief, "GDNet: From Knowledge Hub to Knowledge Broker?" April 2012. Available at GDNet website at www.gdnet.org (accessed June 19, 2012).
- GDNet, "Connecting researchers from the Global South to those with the power to make a difference." Available at http://kdid.org/kmic/connecting-researchers-global-south-those-power-make-difference
- Shapiro, Mark, Savi Mull, and Tina Khanna, "Evaluation of the Global Development Network, 2007." 2007. Available at http://ebookbrowse.com/gdnet-final-evaluation-2007-1-pdf-d86204966
- KM Impact challenge, Connecting Researchers from the global south to those with power to make a difference (http://kdid.org/kmic/connecting-researchers-global-south-those-power-make-difference)
- GDNet website (www.gdnet.org)
- Connect South campaign (www.connectsouth.org)
- Capacity building of knowledge management among research institutes: Reflections from the GDNet Experience (http://www.worldsustainable.org/index.php/component/docman/doc_download/109-article-06-227-240-capacity-building-of-knowledge-management-among-research_iinstitutes)

Author Contact:

Andrew Clappison, Communications Manager, CommsConsult, Email: andrew@commsconsult.org
Shahira Emara, Knowledge Services Manager, GDNet, Email: semara@gdnet.org skype: emara_s

Box: Some examples of feedback

"GDNet has helped me to disseminate my findings to people I didn't know, who in turn, have helped my research by providing feedback on it." Professor, Delhi

"My policy worldview has been radically transformed after this course – and this will be beneficial not only to me, but my Institute." Participant in GDNet/CIPPEC Spaces for Engagement online course

Case Study 6 - IDRC/TTI

K* Case Study Name	***IDRC: Think Tank Initiative***
Author	***Peter Taylor (IDRC)***

Q1. What were the client contexts that generated demand for knowledge?

What were the development challenges and knowledge demand the clients faced at the beginning?

Think tanks in the developing world are uniquely placed to promote change in their societies. They can strengthen public policy debates and promote more objective, evidence-based decision-making. But few of them receive predictable funding, and many depend heavily on short-term project grants and consultancy contracts. Financial support from international donors is usually for one-off projects, which the donor often designs and leads. By contrast, general budget support permits think tanks to define their own research agendas, to retain independence and invest in sustained and structured thinking, and to be more flexible. In fluid local policy contexts, such non-earmarked funding strengthens their ability to respond to windows of opportunity for policy change. Budget support can also enhance the quality of research output, by allowing institutions to provide top policy researchers with opportunities to build careers.

The Think Tank Initiative (TTI) provides some 50 think tanks across the developing world with stable funding so that they can attract, retain, and build local talent, develop independent research programs, and invest in outreach to ensure that research results are accessible for use in policy debates.[1] Grants are combined with dedicated technical support and networking to address the grantees' key needs for institutional development.

"As elsewhere, policy works best when it is informed by local evidence and the work of local scholars. TTI addresses that objective. By providing core support for their work, the Think Tank Initiative allows research institutions to build their own capacities to serve their countries, regions, and the wider world." (IDRC Director David Malone)

How have the responses evolved, and what was the nature of knowledge brokering in the process?

TTI is a multi-donor program managed by Canada's International Development Research Centre (IDRC) ; it is a partnership among IDRC, the William and Flora Hewlett Foundation, the Bill & Melinda Gates Foundation, the UK Department for International Development (DFID) and the Netherlands Directorate-General for International Cooperation (DGIS).

1 "The concepts behind the Think Tank Initiative are not new; what is new is the way that the program is going about implementing them:
- Providing core funding (old) vs Providing long-term and flexible funding to help the institution craft its own vision and agenda (new).
- Providing training and technical assistance (old) vs Providing assistance that is demand-driven (new).
- Improving research quality (old) vs Giving serious attention to organizational performance issues (new)."
IDRC, Local Research for Lasting Solutions: The Think Tank Initiative in Review. 2010. Available at http://www.idrc.ca/EN/Programs/Social_and_Economic_Policy/Think_Tank_Initiative/Documents/Think-AR-2010-E.pdf

2 The International Development Research Center is a Crown corporation created by the Parliament of Canada in 1970 to help developing countries use science and technology to find practical, long-term solutions to the social, economic, and environmental problems they face. Support is directed toward developing an indigenous research capacity to sustain policies and technologies that developing countries need to build healthier, more equitable, and more prosperous societies. See www.idrc.ca

Evolution: after consulting a wide range of policymakers, think tank managers, and other experts, the Hewlett Foundation approached IDRC to come together with a long-term vision for supporting think tanks in developing countries. TTI was born in 2008 as a ten-year program to help these institutions consolidate themselves as stable organizations, develop long-term relevant research programs, and more effectively link the best policy research to the most challenging domestic development problems. The five donor partners have committed about US$ 110 million to the program's first phase, ending in 2014.

Grants: TTI's grants help fund the grantee's research program and operating costs. Initially TTI provided some one-year seed money grants but found that these were too complex to administer: evaluating progress thoroughly enough to decide whether or not to renew a grant can take a long time. Some institutions received two-year renewable grants at first; in fact a few think tanks have been dropped from the program for lack of progress. Now all grants in Latin America and Asia are for four years; some in Africa are two-year.

Knowledge: The Initiative also provides and brokers knowledge to assist grantees in three broad areas: research methods and skills; communication and outreach; and general organizational development. It supports peer-to-peer review, learning, and exchange by bringing together supported organizations, outside experts, and other stakeholders.

Q2. What knowledge was connected, among whom, in which arrangements, producing what results?

What were the institutional set-up and funding arrangements for this work?

The Initiative is housed at IDRC headquarters in Ottawa (it has a central staff of nine) with program officers based in IDRC regional offices in Montevideo, Delhi, Nairobi, and Dakar.
It is governed by an Executive Committee, composed of one representative of each funding agency, and by an International Advisory Group (IAG) composed of nine international experts in the fields of policy research and management.
Funds (Canadian dollars) committed by the donors for the program's first phase:

- 42 million – Hewlett Foundation
- 42 million – Gates Foundation
- 14 million – IDRC
- 9 million – DFID
- 6 million – DGIS

What specific efforts were involved, what did they intend to achieve?

In its first two years, TTI selected the policy research organizations for support, using a competitive tender process in each region (in 2008 in East and West Africa; in 2009 in Latin America and South Asia); it received more than 600 proposals. The organizers decided to focus on a small number of countries that meet specific criteria—such as a degree of both political openness and policy research capacity.

Scoping exercises were carried out to gain in-depth knowledge of these countries' socio-economic and political contexts as well as their policy research environments. (See below for the selection criteria TTI used for individual think tanks.) All the shortlisted institutions were visited and appraised in detail for their potential to make good use of grant funds. The appraisal process yielded a lot of information on their characteristics and needs, and helped to shape TTI's overall agenda.

Case Study 6 - IDRC/TTI

From early on, TTI monitored the funded organizations and began carrying out research to inform its programming. It developed and applied a results framework to identify indicators of progress at the level of both individual grantees and the overall program, and a suite of monitoring tools to collect data over time about the grantees' research quality, policy linkages, and organizational performance, and about the effectiveness of the program's approach to organizational capacity building for these institutions.

TTI's objectives are to:

- Select a group of promising independent policy research organizations and assist them in identifying areas for improvement.
- Provide a combination of general support funding and access to training and technical support to strengthen research quality, policy linkages, and organizational performance.
- Capture and share learning about strategies for supporting and managing policy research organizations in order to influence the future activities of the funding partners, think tanks, and other development actors.

To track progress, said Linda Frey of the Hewlett Foundation, "the funders will consider three fundamental facets of the grants: the quality of research; whether the work is linked to policy; and the health of the grantee institution (for example, its reductions in staff turnover and its ability to attract new sources of general operating support)."

These three overarching goals of TTI—to improve its clients' research quality, policy linkages, and organizational performance—are embodied in its results framework and are what is measured when TTI's overall performance is assessed. They also provide the framework for evaluating the progress of each individual client institution, which is measured against its own specific set of goals that were agreed with TTI at the time of entry to the program.

Who were the participants and what were the activities involved?

TTI supports 49 institutions in 22 countries in East Africa, West Africa, Latin America, and South Asia. Those supported are independent, they conduct policy research, and they are based in developing countries. They focus their research on issues at the country level and address problems related to growth, equity, and poverty reduction. Though they vary widely they have common features that make them a promising investment:

- they are drivers of change, working for better policies in their countries and striving to become stronger organizations;
- they are part of a relatively small group of developing-country institutions experimenting with new approaches to help solve their countries' most challenging problems;
- each has a track record of rigorous research and analysis on national social and economic policy issues, and a keen desire to stimulate broader public policy debates in their countries with the ultimate goal of promoting sustainable growth and poverty reduction.

TTI provides general budget support in the form of renewable grants. Grantees use this support to improve their research programs and to cover their operating costs.

Technical support and training is a fundamental part of the program. The types of needs for technical support were identified in the course of appraising each institution that applied for a grant. TTI provides grantees with peer learning events, and exchanges with outside experts, on research methods and skills; communication and outreach; and general organizational development. TTI organizes face-to-face workshops across the funded think tanks and also provides institutional exchanges, in-country training, e-forums, and peer reviews.

Case Study 6 - IDRC/TTI

- TTI's program of organizational development is centrally funded and organized regionally, and focuses especially on M&E, resource mobilization, and communication/outreach. Through workshops and ongoing technical support, concepts and practical tools are shared on specific topics. Much of the content for this program is developed by the central TTI team.
- In tandem, TTI regional program officers work directly with think tanks in the regions and advise them on sources of expertise to meet their expressed needs. Any arrangements made with these sources are paid for from the think tanks' own grant funds.

TTI works through partnerships: TTI works through partnerships with organizations such as CIPPEC[3] to provide technical support and peer learning, and it links its clients to platforms managed by other agencies such as Research Africa, which provides online information on funding opportunities and research.

Examples of support for ***communications and outreach to promote policy debate***: TTI recognizes that since policy-related researchers are inherently engaged in political processes, their forms of engagement must also be political; they must engage with the political system, including government, private sector, and civil society actors, and not simply "put the information out there." For example, to help African think tanks to develop strategies for engaging with the media, TTI recently held an event in Cape Town on Engaging with the Media for journalists and members of African think tanks, to clarify expectations and needs on both sides. In another example, TTI supports the African Institute for Applied Economics' BECANS project (Business Environment and Competitiveness across Nigerian States). BECANS works with stakeholders to benchmark and track changes in the business environment, providing credible and objective evidence that is essential to improve the quality of dialogue and advocacy with policymakers and other stakeholders.

TTI is building an online database containing all the statistics generated by the Initiative, to be accessible to program staff and grantee institutions. Some of this information will be made available to other researchers.

Program monitoring and evaluation: TTI's comprehensive M&E system will help to ensure accountability and improve performance, while capturing changes at the institutional, country, and program levels.

What are results thus far– e.g. policy changes informed, capacity being built?

Some examples of TTI's institutional impact in funded think tanks, reproduced from TTI's 2010-11 Annual Report[4], p. 8; 14-17, are:

- Uganda's *Economic Policy Research Centre* (EPRC) and Kenya's *Institute of Economic Affairs* (IEA) have purchased costly statistical and modeling software. Their new ability to afford the appropriate tools has led to the production of more robust research.
- Tanzania's *Economic and Social Research Foundation* (ESRF) has reduced the share of commissioned work in its program and is now focusing on a number of strategic projects. What used to stand alone as a commissioned-research unit has now been reintegrated into the unit responsible for research and publications.
- Ghana's *Institute of Statistical, Social and Economic Research* (ISSER) has built new relationships with public and private media to better communicate its research results to the policy community, civil society organizations, and the private sector.
- The African Institute for Applied Economics (AIAE), in Nigeria, has improved its governance systems and better communicates with and reports to its Board of Directors, which has resulted in increasing support from its governing bodies.

3 For example, many of the TTI client institutions have undertaken CIPPEC's online courses on development and leadership.

4 http://www.idrc.ca/EN/Programs/Social_and_Economic_Policy/Think_Tank_Initiative/Documents/Think-Tank-Initiative-Annual-Report-2010-11.pdf

- Senegal's *Consortium pour la Recherche Economique et Sociale* (CRES) has used TTI funding to support its research capacity development through workshops on quantitative economics and impact evaluation methodologies as well as exchange visits for research staff. It has also used the funding to recruit public relations specialists and create a dynamic communications department, enabling CRES to effectively reach out to various stakeholders.
- Bolivia's *Fundación ARU*, one of the younger institutions supported by TTI, has begun setting up the organizational structure that will sustain its policy research activities: it has defined its long-term research agenda, enlarged its pool of researchers, and designed a new governance structure that separates the strategic and executive functions.
- Another Bolivian institution, the *Instituto de Estudios Avanzados en Desarrollo* (INESAD), has seen its visibility increase through being associated with TTI. New donors have approached the institution for the first time to explore partnerships.
- *Grupo FARO*, in Ecuador, has created a new Research Director position, which in turn has supported the implementation of formal systems of research quality control and support for researchers, resulting in improved research products and dissemination.
- In Peru, TTI funding has allowed the *Grupo de Análisis para el Desarrollo* (GRADE) to lay out a communications and policy engagement strategy plan which, according to GRADE's Executive Director, Dr. Martin Benavides, has entailed "a major change in its institutional culture." GRADE now has a Communication and Information Management Unit that is streamlining different mechanisms through which GRADE researchers contribute to the public policy debate; it has improved the institution's communication tools such as its website, transformed GRADE's publications, and supported a new series of policy seminars. GRADE is also providing incentives for research staff to disseminate their research outputs to a diverse set of policy actors.
- The *Institute of Policy Studies of Sri Lanka* (IPS) has adapted TTI's monitoring and evaluation tools to improve its own internal organizational performance monitoring system. The discussion and planning that went into the development of this monitoring and evaluation system has created awareness of organizational strengths and weaknesses among the staff, which is said to have also increased motivation and pride.
- In India, the *Public Affairs Centre* (PAC) has organized exchange platforms where staff from like-minded organizations based in other countries and other regions visit the institution for mutual capacity building.

3. The Connector Role

Who are/were connected?

TTI connects the grantee organizations with each other, outside experts, other think tanks, and other stakeholders in the policy community, including the media, (Also, in at least one case, TTI's provision of funding has encouraged other institutions to initiate connections with TTI grantees for possible partnerships.)

How and why were they connected?

Would you characterize the demand for knowledge as fragmented, or focused? Why is this?
Fragmented. Because TTI spans multiple think tanks addressing multiple problems in multiple countries. Nonetheless, many expressed demands are common across institutions and regions:

- TTI has found that the range of issues that organizations grapple with to be able to do quality research is

quite wide (different contexts generate different challenges), but that within that range a smaller number of core issues seem to be experienced by the majority of institutions. They include access to data, recruiting and retaining high-caliber staff, and negotiating a dynamic political context.

- Think tanks across the three regions also have a high demand for knowledge on communications and outreach[5], monitoring and evaluation of policy impact, and resource mobilization.
- And "Participants in the e-forum identified a number of areas in which they would appreciate learning from the experience of other think tanks and understanding what has worked and what has not worked, including recruiting, retaining and incentivizing staff; diversifying the resource base and other resource mobilization techniques; publishing work; managing time; enhancing communications and harnessing new technologies; conducting policy research; and growing sustainably. There is interest in learning from other think tanks in similar, and different, political and socio-economic environments."[6]

Would you characterize the supply of knowledge as fragmented, or focused? Why is this?
Relatively fragmented. Because it flows both vertically (organized/provided by the program sponsor), and horizontally (from the other think tanks participating in TTI).

Sources and contributions to this data sheet

Documents reviewed:

- Gates Foundation, "Partners Pledge $30 Million to Strengthen African Think Tanks to Inform Development Policy," May 11, 2009. Available at http://www.gatesfoundation.org/press-releases/pages/think-tank-initiative-on-social-and-economic-issues-090511.aspx
- Hewlett Foundation, "Hewlett and Partners Pledge $30 Million to Strengthen African Think Tanks," July 2009. Available at http://www.hewlett.org/newsroom/hewlett-and-partners-pledge-30-million-to-strengthen-african-think-tanks
- IDRC website at www.idrc.ca (accessed June 22, 2012)
- IDRC, 2010-11 Think Tank Initiative Annual Report. Available at http://www.idrc.ca/EN/Programs/Social_and_Economic_Policy/Think_Tank_Initiative/Documents/Think-Tank-Initiative-Annual-Report-2010-11.pdf
- IDRC, Local Research for Lasting Solutions: The Think Tank Initiative in Review. 2010. Available at http://www.idrc.ca/EN/Programs/Social_and_Economic_Policy/Think_Tank_Initiative/Documents/Think-AR-2010-E.pdf
- IDRC and GlobeScan, "Report on the 2009-2011 Policy Community Survey Prepared for IDRC's Think Tank Initiative." Available at http://www.idrc.ca/EN/Programs/Social_and_Economic_Policy/Think_Tank_Initiative/Documents/IDRC_Global%20Report.pdf
- Martin, Marie-Claude, "Why local think tanks are the secret weapon in Africa's development armoury," The East African, January 31, 2011. Available at http://www.theeastafrican.co.ke/news/-/2558/1098390/-/ojr67jz/-/index.html

Author Contact:

Peter Taylor, Senior Program Adviser, TTI, International Development Research Centre, Ottawa, Canada. Tel: 1 613 696 2302. Email: ptaylor@idrc.ca.

5 2009-11 Policy Community Survey, available at http://www.idrc.ca/EN/Programs/Social_and_Economic_Policy/Think_Tank_Initiative/Documents/IDRC_Global%20Report.pdf
6 "Think Tank Initiative Exchange, 2012: Preparatory e-forum: highlights and insights."

Box: Some testimonials

"[with support for core funding] you can have the freedom to improve the range of research that you do, to be more creative and to follow what you, as a think tank, believe is important, not necessarily what the donors think is important."
Léonard Wantchékon, Executive Director, IERPE, Benin

"The core support provided by the Think Tank Initiative will allow us to strengthen our research program, enhance our communications strategy, and further invest in effective partnerships and networks, therefore helping us towards fulfilling our mission of building research and analysis capacity in Senegal."
Abdoulaye Diagne, Executive Director, Consortium pour la Recherche Economique et Sociale, Senegal

Case Study 7 - CDBPH

K* Case Study Name	***Center for Development of Best Practices in Health (CDBPH): Supporting Evidence-Informed Policy-making to Improve Governance for Health District Development in Cameroon***
Author	***Pierre Ongolo-Zogo (CDBPH)***

Q1. What were the client contexts that generated demand for knowledge?

What were the development challenges and knowledge demand the clients faced at the beginning?

Faced with the overlapping burdens of tropical diseases, non-communicable diseases, and poverty, over the past decade Cameroon has been reforming its health sector to strengthen its approach to primary health care. Evidence-based decision-making has been routinely underlined as a core need.[1]

In 2006, a mid-term evaluation (co-funded by the Government and the World Bank) of the 2001-10 Health Sector Strategy (HSS) showed that goals were not being met and that stakeholders were dissatisfied with poor governance and weak district health systems.

The Ministry of Public Health responded by launching a participatory process to revamp the strategy. Playing a crucial role in the redesign of the strategy—both by providing evidence and by orchestrating the participatory process of decision-making—was the Center for Development of Best Practices in Health (CDBPH).[2] Established in 2008 in Cameroon, the Center works to create an environment conducive to evidence-informed decision-making in the health sector in African countries.

How have the responses evolved, and what was the nature of knowledge brokering in the process?

One of the big challenges perceived in the planning process for the revised Health Sector Strategy was the danger of being railroaded by experts into making unsuitable decisions. The Director of CDBPH, Dr. Pierre Ongolo-Zogo, saw that efforts were needed to build the capacity for evidence-based decision-making within the Public Health Ministry itself, and to help provide relevant information in a form that decision-makers could readily assimilate and use. Efforts would also be needed to build broad capacity for critical thinking within the community organizations that would play a role decision-making on HSS priorities and action plans.

1 Source: http://www.who.int/alliance-hpsr/projects/uniyaounde_etpsnp/en/index.html

2 The Centre for Development of Best Practices in Health (CDBPH) is a research unit established in June 2008 at the Yaoundé Central Hospital to foster knowledge translation and exchange and thereby promote evidence-informed decision-making on health. Supported by a Global Health Leadership Award from the Global Health Research Initiative operated by Canada's International Development Research Centre, CDBPH facilitates interaction between researchers and decision-makers in health. The Center aims to assist researchers by collecting, synthesizing, repackaging, and communicating relevant evidence in user-friendly terms that stakeholders at many different levels can understand and use effectively. CDBPH also serves health decision-makers by providing capacity building opportunities and evidence summaries, and by identifying needs and gaps related to Evidence to Practice. The Center is one out of eight partners implementing a five year, $5.5 million, multi-country project on Supporting the Use of Research Evidence (SURE) in African Health Systems, funded by the European Union Research Directorate General.

Case Study 7 - CDBPH

Having founded the CDBPH in 2008, Dr Ongolo-Zogo applied for and obtained international funding for a three-year project to promote evidence-based decision-making in the health sector in Cameroon, in particular to support better governance in health district development.

Personal connections and trust were crucial in the genesis of the project. The Director of CDBPH had previously served as Director of Health Operations Research in the Ministry of Public Health (2003-08) and had been part of the team that provided the 2006 evaluation of the Health Sector Strategy. The evaluators had proposed solutions to the problems they identified in the HSS. After a change in health sector leadership late in 2007, Dr Ongolo-Zogo established the Center and continued to work with Ministry staff on implementing the evaluation recommendations and redirecting the HSS. In this process he could count on a loose network of decision-makers whom he had brought together on a regular basis to discuss research priorities while at the Ministry. The Center began doing priority-setting exercises for the revamped HSS with the Ministry and with civil society organizations, particularly the Cameroon Coalition against Malaria, building on the evaluation report of the HSS and jointly creating a road map of what had been going wrong, what were the minister's desires, and what were interventional priorities.

The revised HSS was designed for a sector wide approach (SWAp) with three cross-cutting dimensions: (i) strengthening delivery of health services through improvements in infrastructure, drug supply system, and human resources; (ii) decentralizing care and enhancing the autonomy and management of health districts; and (iii) strengthening normative functions including policy setting, regulation, supervision, coordination, financing, monitoring and evaluation. The focus on decentralization and the development of health districts entails a dramatic change in the way the health system is managed. To implement the revamped HSS successfully, the priority issues were identified as health district governance, health financing, management information systems, the use of community health workers, and malaria control. The implementation of the revamped strategy is backed by a US25 million World Bank-financed Health Sector Support Investment Project that will run from 2009-2014.

In shaping the goals and work program for the knowledge translation project, Dr Ongolo-Zogo also drew on experiences from having served on steering groups and advisory committees of the WHO, as well as on knowledge translation approaches associated with Andrew Oxman at the Norwegian Knowledge Center for the Health Services and John Lavis at McMaster Health Forum (Canada), with both of whom he had previously worked.

Q2. Goals, activities, and results: What knowledge was connected, among whom, in which arrangements, producing what results?

What were the institutional set-up and funding arrangements for this work?

The three-year project (2009-11) was a joint commitment by three parties: the Center for Development of Best Practices in Health; the Technical Secretariat of the Steering Committee for the implementation and follow-up of the Cameroon Health Sector Strategy; and the Cameroon Coalition against Malaria.[3]

The project was funded by the Alliance for Health Policy and Systems Research.[4]

What specific efforts were involved, what did they intend to achieve?

The project's underlying premise was that facts can be used as a means to build consensus and thereby facilitate and sustain change. The project sought to facilitate the supply of knowledge that could be used for decision-making. It also sought to build the capacity of groups that were influential in the reform process to source and interpret what would often be conflicting knowledge about complex issues. Its goals were to:

- Help build a newly created knowledge translation/transfer centre in Cameroon.
- Strengthen institutional capacity of the Technical Secretariat of the HSS Steering Committee to play its role of policy advisory board.
- Build human capacity of policymakers in demanding, accessing, assessing, and using health-policy-and-systems-research-based evidence.
- Build human capacity within civil society organizations to better advocate for patients' interests, as well as building the capacity of representatives of the community in the dialogue structure both at the national and the district levels.
- Encourage better interactions between administrative authorities.
- Help identify some priority areas of health system and policy research in the context of SWAp implementation.
- Improve malaria control activities.[5]

3 The Cameroon Coalition against Malaria (CCAM) is the Cameroonian affiliate of the international Malaria Consortium. CCAM is non-political, non-governmental, and not for profit. It is an advocacy association that fights for the control and prevention of malaria in Cameroon in collaboration with the country's National Malaria Control Program.

4 The Alliance for Health Policy and Systems Research (AHPSR) is an international collaboration based in the Health Systems and Services Cluster in the World Health Organization (WHO). Its activities are coordinated by a small secretariat but most of these are conducted through the competitive award of grants to any of the more than 300 partners associated with the Alliance. The Alliance aims to promote the generation and use of health policy and systems research as a means to improve the health systems of developing countries.

5 Source: http://www.who.int/alliance-hpsr/projects/uniyaounde_etpsnp/en/index.html.

Specifically, it aimed to:

- Strengthen the Technical Secretariat of the HSS Steering Committee to demand, access, assess and use strategic information in order to better its role of policy and management advisory unit;
- Build local human capacity in evidence-to-policy activities—mainly among senior staff from ministries with health-related activities and provincial delegates for public health…so as to provide them with the needed skills to identify, access, assess, demand and apply evidence in their decision-making process;
- Collect and filter relevant evidence on district development and develop policy briefs in such domains as community health insurance, community participation, contractualization of performance, community-directed interventions, integration of health services, district governance, and health services organization;
- Collect and package relevant routine health management information (such as epidemiologic trends of the five leading causes of morbidity and mortality in three provinces) in a user-friendly format to be distributed to civil society organizations, administrative and traditional authorities, and members of governing bodies of health districts to enable them to effectively play their roles;
- Disseminate user-friendly evidence summaries to a group of 600 key actors including technical advisors in ministries in charge of health, social affairs, economy and finance, senior staff from the provincial governor's office, health staff at the provincial level, and district medical officers;
- Organize deliberative forums on health insurance and malaria control interventions. These forums [brought] together stakeholders from ministries, civil society organizations, scientists, private healthcare organizations, representatives from technical and financial partners of the health sector, and health professionals' associations;
- Provide the Technical Secretariat of the HSS Steering Committee with policy briefs on relevant strategic policy options of national interest during the transition to the sector-wide approach for district development and decentralization;
- Pilot the utilization of relevant evidence to enhance malaria control activities by building stronger ownership of policy options among all malaria-control stakeholders (health professionals, representatives from administrations, healthcare providers, scientists, media, parliamentarians, industrials, community representatives);
- Develop and operate a bilingual clearinghouse providing access to electronic versions of the deliverables of the project.[6]

Who were the participants and what were the activities involved?

National and sub-national health decision-makers, stakeholders, external donors, and researchers.

The activities included:

- Capacity building for decision-makers, stakeholders, and researchers. Under the project, CDBPH has trained some 50 people in evidence-based decision-making, including many in the Ministry of Health.

6 Source: http://www.who.int/alliance-hpsr/projects/uniyaounde_etpsnp/en/index.html.

- Producing and communicating policy briefs.[7] The main audiences for the briefs were governmental and administrative authorities, local municipalities, health development financial and technical partners, civil society organizations, media, and promoters of health mutual organizations.
- Producing bulletins of strategic health information.
- Organizing policy dialogues.
- Developing and maintaining a clearinghouse providing access to evidence summaries and policy briefs.
- Organizing a consultation to identify health systems and policy research cutting-edge issues and challenges to evidence on policy and practice.

What are results thus far– e.g. policy changes informed, capacity being built?

Key achievements are:

- The community participation component of the HSS has been much strengthened. GIZ, the German Technical Cooperation Organization, is now providing grant funding to improve health system governance at the district level. The GIZ grant will help further the decentralization agenda by building the capacity of civil society organizations for enhanced participation in district health boards.
- As a result of its relationship with the CDBPH project, the Cameroon Coalition Against Malaria has become more closely tied to grass-roots civil society organizations and more in touch with their understanding of problems and solutions. Consequently it has been able to receive resources from the Global Fund for AIDS, Tuberculosis, and Malaria.
- Acceptance by decision-makers of the importance of evidence in decision-making—this acceptance amounts, in some cases, to a crucial change in their attitude.
- The demand for evidence summaries from the Center has increased, leading the Center to establish a rapid response service for decision-makers.
- In addition to the initial program, further policy dialogues have been organized on request by the Ministry of Public Health.

7 For example:
Ngum Wonghi J, Ongolo-Zogo P. Policy Brief (2011): Scaling up Malaria Control Interventions in Cameroon. Available at pdf, 1.08Mb http://www.who.int/alliance-hpsr/projects/alliancehpsr_policybriefscalingupmalariacameroon.pdf
Ndongo JS, Ongolo-Zogo P. (2010). Policy Brief: Reinforcing the Health Information System to step up the viabilization of health districts. Available at pdf, 203kb
http://www.who.int/entity/alliance-hpsr/projects/alliancehpsr_policybriefhealthinfosystemscameroon.pdf
Ongolo-Zogo P. et al. (2009). Policy Brief: Scaling up Enrolment in Community-Based Health Insurance in Cameroon. Available at pdf, 308kb http://www.who.int/entity/alliance-hpsr/projects/alliancehpsr_snppolbriefcameroon09.pdf
Ongolo-Zogo P. et al. (2010). Policy Brief: Fostering stakeholders' involvement for better governance and speeding up the development of health districts in Cameroon. Available at pdf, 107kb.
http://www.who.int/entity/alliance-hpsr/projects/alliancehpsr_snppolbriefgovcameroon10.pdf

3. The Connector Role

Who are/were connected?

National and sub-national health decision-makers; stakeholders (governmental and administrative authorities, local municipalities, health development financial and technical partners, civil society organizations, and promoters of health mutual organizations), external donors, researchers, and media.

How and why were they connected?

Through:

- Organization of policy dialogues to agree on problem definitions and priorities for action.
- Training in evidence-based decision-making.
- Collection, packaging, and distribution of evidence on district development and trends in health conditions and evidence summaries from research on health management issues, and preparation of written policy briefs on strategic policy options.
- Organization of deliberative forums (bringing together stakeholders from ministries, civil society organizations, scientists, private healthcare organizations, representatives from technical and financial partners of the health sector, and health professionals' associations).

Would you characterize the demand for knowledge as fragmented, or focused? Why is this?
Fragmented. Many types of knowledge were needed by many different types of stakeholders. And some of the Public Health Ministry directorates the Center interacted with had demands for knowledge that varied depending on the level of staff—e.g. technical people, sub-director, director. When the Center started capacity building for the Ministry, the directorates formulated clearer more unified demands for this purpose.

Would you characterize the supply of knowledge as fragmented, or focused? Why is this?
Fragmented, and dependent on which topic and which expert. The project spanned many substantive domains and needed many ways of dealing with funders, stakeholders, and decision-makers. Note incidentally that there are many research units in Cameroon, but few producing evidence that can be readily used for decision-making.

Other observations, lessons

- Identifying the right "owner" of the policy problem or issue at hand is as critical as identifying the health issue itself.
- Promoting evidence-informed policy change is especially difficult in a land ruled by traditional chiefs. Forming and managing relationships with bureaucrats was key. Building trust and understanding the political context were crucial because the knowledge being translated went against the grain of those in power.
- Many funding organizations have their own priorities for what they would like to support. If at the end of the day these do not match local priorities it will be difficult to move ahead. Hence it is important to get the right people at the table when analyzing issues and setting priorities, otherwise the big players bringing in funds will dominate the diagnosis and action plan, even though there is a high risk their ideas may be wrong. If the policy brief and dialogue approach is to succeed, it is essential to uncover the hidden agenda of external donors during the stakeholders' analysis at the priority setting stage.

Case Study 7 - CDBPH

- Evidence-informed policy dialogues or deliberations are valuable sources of tacit knowledge on implementation barriers.
- Planning cycles and bureaucrats' turnover need to be carefully considered when engaging in knowledge-translation activities.
- Funding from AHPSR for the three-year project facilitated and sustained the prolonged engagement that was critical to mutual trust and understanding.
- An unsolved issue: what should happen after an evidence-informed policy dialogue?
- Pressing knowledge gaps: (i) costing of interventions; (ii) strategies for effective transfer of evidence-informed policies within the system; (iii) effective strategies and tools to measure the impact of knowledge translation activities.

Sources and contributions to this data sheet

Documents reviewed:

- Alliance for Health Policy and Systems Research, "Sponsoring national processes for evidence-informed policy in the health sector of developing countries – Cameroon." Available at http://www.who.int/alliance-hpsr/projects/uniyaounde_etpsnp/en/index.html
- Centre for Development of Best Practices in Health (CDBPH) website at http://www.cdbph.org/
- Mba, Robert Marie, and Pierre Ongolo-Zogo, *An Evidence-Based Policy Brief for Improving Governance for Health District Development in Cameroon*. CDBPS-H, SURE, and EVIP-Net. 11 April, 2012. Available at http://www.cdbph.org/documents/Policy%20Brief_14%20March%202011.pdf
- Nkoa, Francois-Colin, and Pierre Ongolo-Zogo, Policy Brief, "Scaling up Enrolment in Community-Based Health Insurance in Cameroon." 2009. Available at http://www.who.int/alliance-hpsr/projects/alliancehpsr_snppolbriefcameroon09.pdf
- Ongolo-Zogo, Pierre, KStar Conference Brief, "Supporting Evidence-Informed Policymaking during the Transition towards a SWAp for District Health System Strengthening in Cameroon." April 2012. Available at http://www.inweh.unu.edu/River/KnowledgeManagement/documents/KstarPanel_templates/KStar_Case_Study_Pierre_Ongolo_EIP_Health_SWAP_Cameroon_with_practitioners.pdf
- Wilson, Gail, "Practicing Kstar: from ideas to action." GDNet Blog, April 26, 2012. Available at GDNet http://gdnetblog.org/2012/04/26/practicing-kstar-from-ideas-to-action/
- World Bank, "Project Appraisal Report for Cameroon Health Sector Support Investment Project." Report No: 42643-CM. May 29, 2008. Available at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2008/06/04/000333037_20080605000843/Rendered/PDF/426430PAD0P1041ly10IDA1r20081018111.pdf
- World Bank, "Cameroon Health Sector Support Investment Restructuring Paper." May 11, 2011. Available at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/06/14/000356161_20110614042027/Rendered/PDF/605220PJPR0v100ing0Paper00501102011.pdf

Author Contact:
Dr Pierre Ongolo-Zogo, (CDBPH) Email pc.ongolo@gmail.com

Case Study 8 - York KMb Unit

K* Case Study Name	***Knowledge Mobilization for Social Innovation in York Region***
Author	***David Phipps (York University KMb unit)***

Q1. What were the client contexts that generated demand for knowledge? [1]

What were the development challenges and knowledge demand the clients faced at the beginning?

York Region sits to the north of Toronto, Canada's largest urban space. Governed by a regional government comprised of nine independent municipalities, York Region (www.york.ca) covers 1,776 sq. km. York Region has more than 1 million residents and, with new immigrants making up 43% of the population (almost twice the proportion in the rest of Ontario), is one of Canada's fastest growing and most diverse communities. It has elements of inner city, high wealth creation, an Aboriginal reserve, rural agriculture and environmentally protected areas such as the Oakridge's Moraine. The complex social and human service needs of such a diverse region are confounded by a relative lack of investments in human service infrastructure. In 2007, Price Waterhouse Coopers released a report showing a total human service funding gap of $708.2 million.[1] This gap intensifies the need for human services provided at the community level. Along with other social service organizations, United Way of York Region (UWYR) helps to bridge this gap not just with funding (investing more than $8 million annually in community programs) but with civic engagement, community building, leadership and a desire to work across all sectors to improve the quality of life of the citizens of York Region.

York University is Canada's third-largest university with research and graduate programs in every discipline. It is an active player in the civic and economic fabric of York Region and has a number of outreach activities in collaboration with York Region communities, businesses and municipal governments. It has invested in the first Knowledge Mobilization (KMb) Unit in Canada that is fully integrated into the research enterprise of the university. Operational since 2006, the KMb Unit serves to enhance access to research and research expertise so that academic research can inform decisions about public policy and professional practice.

Since 2006, York University's KMb unit and UWYR have worked in partnership to address some of the social issues affecting York Region. The challenge has been to jointly deliver knowledge mobilization services to support social innovation which is finding new ways to address persistent social challenges.

How have the responses evolved, and what was the nature of knowledge brokering in the process?

The partnership between UWYR and York University has evolved from providing gateways into each others' networks to co-investing with a shared philosophy built on trust and experience. The partners deepened their relationship by supporting each other in governance and decision-making roles. York University invited UWYR to sit on its KMb Joint Advisory Committee. David Phipps (York U) was invited to sit on the UWYR Community Engagement & Research Committee and Daniele Zanotti (UWYR) was invited to sit on the President's Task Force on Community Engagement. They also collaborated on projects of mutual benefit, such as producing clear language research summaries: ResearchSnapshots. Over the last 2 years York University has posted 190 ResearchSnapshots in an online searchable database, www.researchimpact.ca/researchsearch. Over the summer of 2010 the KMb Unit targeted research that falls under the UWYR's three strategic priorities: helping local youth grow up strong; enabling individuals and families

1 All dollar amounts quoted in this data sheet are in Canadian dollars.

to achieve economic independence; and improving the wellbeing of individuals and community. Of the 63 research projects submitted for drafting as ResearchSnapshots in 2010, 44 of them met one of the three UWYR priorities. In Summer 2011, York U and UWYR shared funding to produce a ResearchSnapshot on social determinants of health. In Summer 2012, the partners are writing research summaries on income and housing vulnerability.

UWYR and York University publicly support each others' community outreach and engagement efforts by being visible at each others' events. Zanotti speaks at each KMb Expo, York University's annual KMb colloquium, and Phipps attends and supports community consultations such as those that led to the UWYR 2009 strategic planning document, Addressing our Strengths. Zanotti was a keynote speaker at the May 2010 York Leaders' Roundtable. Beyond public speaking they also publish together. You can read the top 10 lessons learned from knowledge mobilization as articulated by Phipps and Zanotti, who has also has been featured in nine stories on York University's KMb blog, Mobilize This!

This publicly visible partnership has extended to investing in collaborative research projects. Over the summer of 2009, York's KMb Unit invested $30,000 in each of two collaborative research projects between York researchers and York Region community partners; it now co-funds graduate student interns. In Summer 2010, UWYR and York University co-funded three graduate student interns to undertake neighbourhood-based research in York Region to help inform UWYR investment decisions. York University's KMb intern program has supported 31 graduate students working in research-based summer jobs for community partners. Students get real-world experience applying their emerging research talents, and the community partners have a better sense of the potential for community-university collaborations. In addition to this co-investment in current KMb interns, Zanotti hired a former York University KMb Intern as part of UWYR's campaign staff. Hiring experienced KMb Interns illustrates the value of the internship in training graduate students for a career in community-based work.

Q2. Goals, activities and results: what knowledge were connected, among whom, in which arrangements, producing what results?

What were the institutional set-up and funding arrangements for this work?

York University maintains two full time salaries plus approx. $40K in operating funds for the Knowledge Mobilization Unit. In addition, it shares a federal grant with UWYR that funds the salaries and operating expenses for a community-based knowledge broker.

Case Study 8 - York KMb Unit

What specific efforts were involved, what did they intend to achieve?

The partnership provides six primary services to faculty, students and community partners:

KMb Method	KMb Method	Notes
Producer Push	#1 Clear language research summaries	Develop clear language research summaries from completed faculty research.
	#2 Lunch and Learn	Seminar series at decision-maker sites
User Pull	#3 Research translation help desk	Use knowledge broker model to help decision-maker partners identify, develop, and sustain collaborations with researchers.
Knowledge Exchange	#4 Research forums	KM in the AM: Monthly thematic knowledge mobilization breakfasts.
Co-production	#5 Social media to support collaboration	Provide support for full suite of social media tools including blogging, delicious bookmarks, Twitter, and social collaboration tools.
	#6 KMb interns	Graduate student KMb interns work in research collaborations with decision-maker partners.

Who were the participants and what were the activities involved?

For activities see services, above. In terms of participants involved, all the collaborations brokered had an academic partner; 70% of the collaborations brokered had a community partner and 30% of the collaborations brokered had a public sector (municipal or provincial government) partner.

What are the results thus far, e.g. policy changes informed, capacity being built?

Some of the immediate outputs and longer-term outcomes are listed below:

Immediate outputs	
# Faculty Involved	228
# Graduate Involved	141
# Information sessions for faculty and students	165
# Information sessions for community	184
# Web hits	+4M
# Research Summaries	158
# Tweets	4253
#Twitter followers	1529

Case Study 8 - York KMb Unit

Immediate outputs (cont)	
# delicious bookmarks	219
# blog postings (+71,000 views)	266
Longer-term outcomes	
# collaborations brokered	227
# agencies involved in KMb partnerships	205
Community Partner funding raised	$810K
Research Contract funding raised	$1.2M
Total KMb associated grant funding raised	$16M

Of the 227 collaborations brokered 70 collaborative projects were supported. Some of the outcomes included new services and policies, such as:

Evaluation of the Inclusivity Action Plan (public sector partner): York Region is home to the largest newcomer population in Canada. In January 2005 York Region held an Inclusivity Summit that resulted in York Region Counsel adopting an Inclusivity Action Plan that included opening a Welcome Centre where newcomers could get access to culturally sensitive health and human services. In 2007, York's KMb Unit brokered a collaboration between the Regional Municipality of York and York University researchers from the Faculty of Health to undertake an evaluation of the Welcome Centre. The evidence co-produced in that evaluation informed a decision by the Regional government to expand the program. York Region now has five Welcome Centres and newcomers across this large region have greater access to many settlement services—including the culturally sensitive health and employment services they require. In this expansion 86 jobs were created and more than 48,000 instances of service delivery have been performed between 2007 and 2011. The researchers published their results in an international journal (Singh and Hynie 2008) and you can read the ResearchSnapshot clear language research summary (http://researchimpact.ca/_app/impact/files/tables/files.path.22.pdf) about this research and its policy implications.

Green Economy Centre (private sector partner): Nottawasaga Futures is a community futures agency in rural South Simcoe that supports rural businesses. Nottawasaga Futures approached York's KMb Unit in 2009 to assist it with the challenge of helping rural businesses make greener business decisions. York's KMb Unit held a meeting of faculty, funders and Nottawasaga Futures to imagine how green business services could be delivered in South Simcoe. Nottawasaga Futures engaged the services of two graduate student KMb interns who were supervised by faculty members from York University's Schulich School of Business and the Faculty of Environmental Studies. The interns undertook research that informed the development of a business case that subsequently was funded and launched the Green Economy Centre. The Green Economy Centre is an innovative research and education program that initiates, supports and facilitates green economic best practices, ensuring that the rural South Simcoe economy is healthy and sustainable. The Centre was launched in April 2010 and received funding in summer 2010. Since then, the Centre has contacted 604 local businesses and made 507 individual visits resulting in 39% of companies expressing interest in the Centre's programs. With the support of the Centre, four companies have received loans for green projects totaling more than $1 million, and seven other loans are pending. The services of the Green Economy Transition Centre have already created 18 jobs while maintaining 221 jobs. This project is illustrated in a short KMb video (http://www.youtube.com/researchimpact#p/a/u/0/J15_lBz5mYU).

Heat Registry (community partner): In North America heat kills more people every year than all other severe weather-related events combined. In 2008, Tanya Gulliver was a graduate student in York's Faculty of Environmental Studies. She was awarded a York University KMb Internship to work for the summer with her partner, Parkdale Activity and

Case Study 8 - York KMb Unit

Recreation Centre (PARC), a community centre providing support to a large and diverse group of psychiatric illness survivors, low income and marginalized persons. PARC and Tanya developed Canada's first heat registry that tracked vulnerable community members at risk of heat exposure. During heat alert days the heat registry was used by Tanya and a group of street engaged volunteers to track vulnerable community members and ensure that they received the services they needed to resist the heat. In 2010, Tanya developed a Heat Registry Manual. "This manual offers a way to track (through regularly updated documentation) and actively monitor people who might be at risk from suffering ill effects caused by extreme heat. It provides a system of checking in on, and checking up on (through outreach or some other effort), people who have voluntarily self-identified as being at risk and want to be on the Registry" (Toronto Disaster Relief Committee 2011). The Heat Registry Manual is now before the Toronto Board of Public Health and is being evaluated by Toronto's Medical Officer of Health to determine how it might be able to inform Toronto's cooling policies and services.

Strength Investments (community sector partner): For five years UWYR and York University have been deepening their knowledge mobilization and social innovation partnership. Recently they co-invested in three graduate student interns who undertook social asset mapping research in Markham, a suburban municipality in York Region. Their research developed the evidence needed to launch a wholly new form of United Way investment called Strength Investments, which recently invested $150K in six projects. As an example, UWYR invested in a project from the Markham African Caribbean Association titled *Building Sustainable Capacities amongst Afro-Canadian Caribbean Youth in York Region*. This initiative involves and listens to local youth as they identify their realities in York Region—inclusion, education, family life—and then helps them identify and build their own solutions. Strength Investments and therefore this project would not have been possible without the collaboration between a UWYR opportunity and York research.

Who are/were connected?

Within the overall objective of connecting the local community with university-based knowledge, the KMb unit brokers a wide variety of relationships, depending on the demand (as described above).

How and why were they connected?

Would you characterize the demand for knowledge as fragmented, or focused? Why is this?

While for individual projects there may be a focused demand for a particular aspect of technical knowledge, overall – because of the variety of different topics covered by the KMb unit and the mixes of organisations that need knowledge, we would characterize it as fragmented. This points up the importance of shaping brokering needs depending on the characteristics of each issue.

Would you characterize the supply of knowledge as fragmented, or focused? Why is this?

As above, this differs depending on whether we are looking at an individual brokering project, or the programme as a whole.

Sources and contributions to this data sheet

Author Contact:
David Phipps, (York University, KMb Unit) Email dphipps@yorku.ca

This page intentionally left blank.

UNITED NATIONS UNIVERSITY

UNU-INWEH

The United Nations Think Tank on Water

United Nations University
Institute for Water, Environment and Health
175 Longwood Road South, Suite 204
Hamilton, ON Canada L8P 0A1
1.905.667.5511 • www.inweh.unu.edu

ISBN: 92-808-6036-4