Local ideas and expertise strengthen research systems

Lessons learned from a collective problem-solving approach

To put research at the heart of national development requires collaboration between librarians, IT specialists, leaders in higher education, research institutes, government ministries, and others. Yet few opportunities exist for meaningful dialogue or understanding between them. INASP is piloting a unique approach to stimulating collaboration, called Working Together to Support Research (WTSR). It brings stakeholders together to identify problems and solutions for improving research communications, driven wholly by in-country expertise and momentum.

Research information and scientific knowledge make a crucial contribution to meeting the challenges faced by many developing countries. Strengthening research systems requires the smooth operation of a multitude of interlocking functions. There are often groups of professionals trying to strengthen research, but each works on their own aspect of the problem, while solutions require the cooperation of groups within and beyond their organizations.

To foster cooperation, INASP introduced the concept of 'Working Together to Support Research' (WTSR). It takes the form of a two-day meeting of a group of experienced and knowledgeable researchers, journal editors, librarians, IT staff, policymakers and others – in fact, as many diverse perspectives and specialists as possible. Together, they identify high-priority common problems and use a problem-solving methodology to ascertain the root causes and devise solutions. The participants use their knowledge and experience to decide the focus, drive the

Participants in WTSR workshop in Tanzania discuss problem-tree analysis.

discussions and set the course for solving the problems. The facilitator and materials simply support the process of their work.

There have been WTSR meetings in six countries so far: Ghana, Tanzania, Ethiopia, El Salvador, Nicaragua and Cuba. Supported by INASP, the meetings have been organized by the national library consortia or other similar organization (such as the ministry of Higher Education) of each country and led by independent facilitators.

How the WTSR process works

The WTSR approach is based on a "pure" facilitation approach, which means that the problem to be solved is chosen and defined by the participants rather than by the facilitator or an external source. To start the process, the national library consortium identifies a skilled facilitator and selects participants who are crucial to the national research system.

In any country, a research system involves an interdependent set of people and processes, working to find solutions and innovations that address social, economic and environmental problems. The main actors in the system are:

- researchers, who could be viewed as knowledge and innovation generators;

- information intermediaries who enable the research process such as library and IT professionals and journal editors;

- policymakers and practitioners who (ideally) use the research and influence the research agenda.

These people are usually based in universities, research institutions, government agencies, publishing agencies, science councils and academies, businesses, non-governmental organizations (NGOs), or civil-society organizations (CSOs). They may
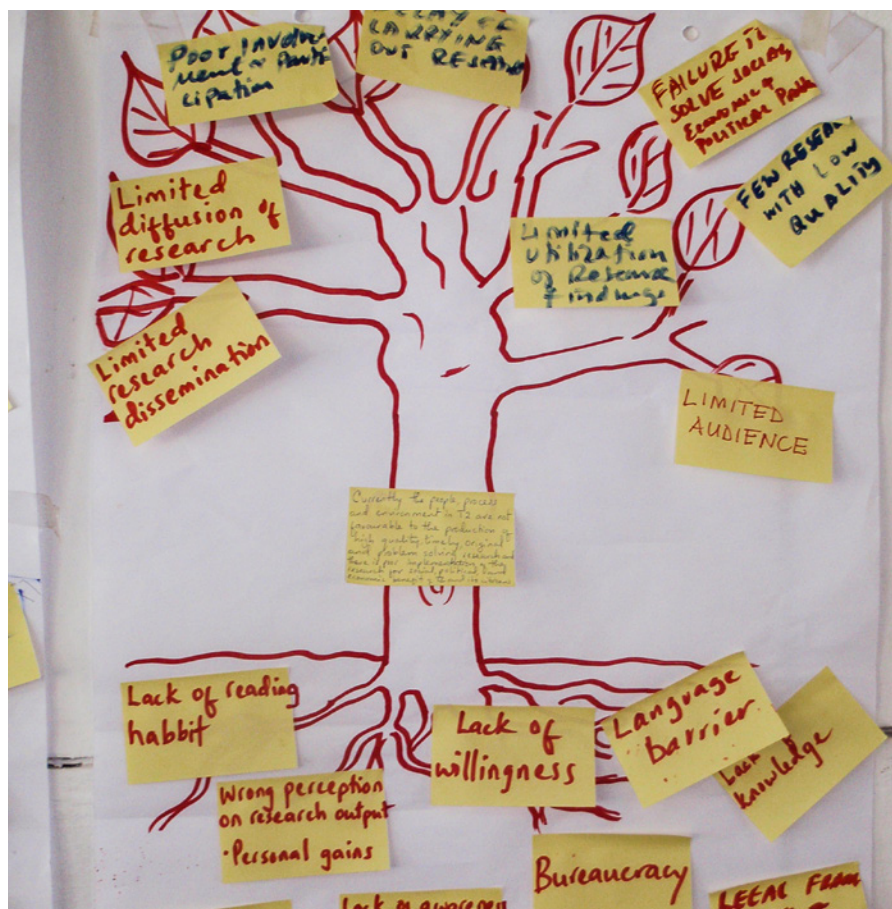
Example problem tree.

First step in the WTSR approach: formulating a problem statement

The WTSR approach requires each country's participants to decide which of the problems facing their national research network is the most crucial to tackle first. The following are problem statements that formed the focus of WTSR meetings in six countries.

Cuba
The current processes of research communication in the institutions belonging to the Ministry of Higher Education have a limited impact on national policies around science, innovation and social development.

Tanzania
Currently the people, processes and environment in Tanzania are not favourable to the production of high quality, timely, original and problem solving research. Additionally there is poor implementation of the research for the social, political, and economic benefit of Tanzania and its citizens.

Ethiopia
Research has the potential to have a positive impact on peoples' lives in Ethiopia. At the moment, this impact is limited.

Ghana
Lack of budgetary and planning for formulation, dissemination and regular review of policy (National Science and Technology Policies).

Nicaragua
The poor dissemination and communication strategies in organizations and institutions which generate, process, and diffuse information and knowledge limit development in Nicaragua.

El Salvador
Efficient dissemination and appropriateness of El Salvadorian research activities raise awareness among stakeholders and achieve greater social impact. Today, low diffusion, a lack of locally appropriate El Salvadorian scientific publications, and the low performance of research information systems, limit improving research and development at the national level.

> " ... success rests on people in the group having the mandate or influence to take the action forward ... If the 'right' people don't come, the meeting is unlikely to have longer term impact."
>
> **Sara Gwynn,
> Independent Facilitator**

Research communication system

Participants use a large research diagram as part of discussions, adding Post-it notes to apply the diagram to their own country context.
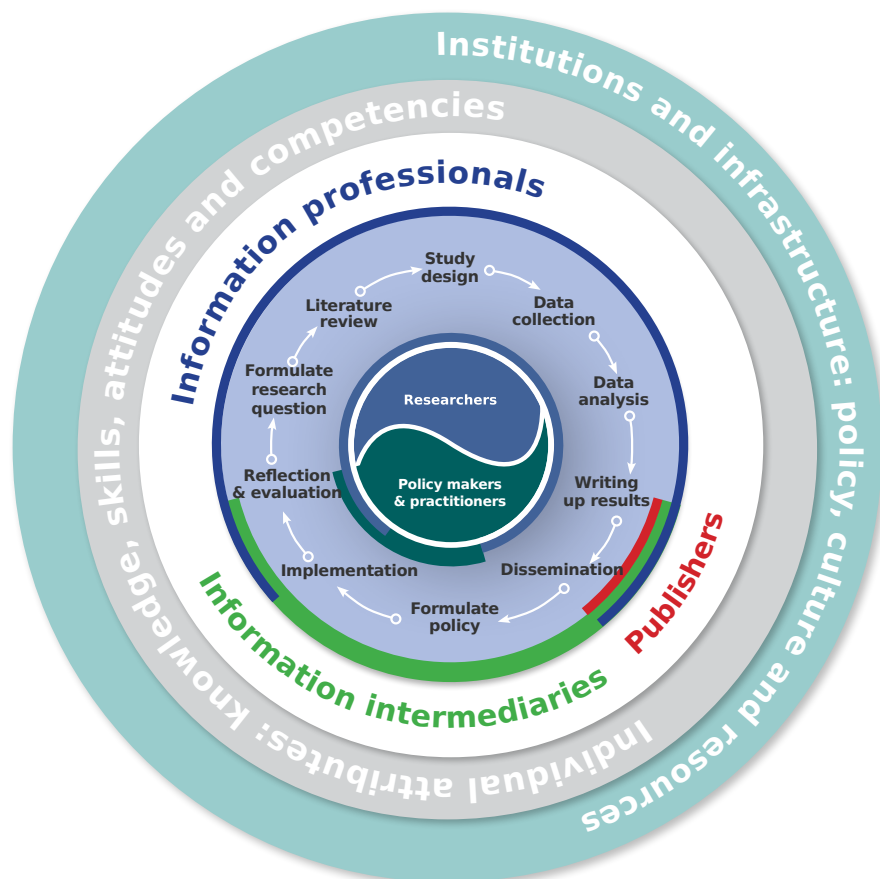
interact in formal or informal ways, and they might have very different interests and agendas.

The WTSR approach invites up to 30 people from as many of these sectors as possible, depending upon the country context and needs.

Choosing a focus for the meeting

The national library consortium carries out a pre-workshop consultation to identify the main problem(s) that will be the focus of the workshop, or to identify a selection of problems that will then be discussed and chosen from at the start of the workshop.

Some of the most commonly identified problems at the meetings relate to the limited

scope of publishing and dissemination of national research; limited locally appropriate research; and, at government level, problems with policies that do not get implemented and a lack of linkages between government policy and institutions.

An example of pre-meeting planning can be seen with the approach in Ghana. The Consortium of Academic and Research Libraries in Ghana (CARLIGH) did a significant

amount of preparation before their WTSR meeting.

Beforehand, the organizers distributed a concise briefing paper outlining the research context in the country and the aims and expectations of the meeting. This briefing document discussed how research productivity in Ghana has been steadily increasing in terms of productivity, citations and collaboration, and explained some of the major problems the country faces.

> **"The WTSR training materials encourage full participation and keep participants fully involved in the workshop."**
>
> **Participant, Ethiopia**

Participants and facilitator debate during workshop.

The organizers also shared a survey that would be used to identify key problems that would form the central focus of meeting discussions. Facilitators and others found that, at the very least, the survey should be conducted a minimum of two weeks before the meeting to provide time for the facilitator to review the answers and to prepare.

CARLIGH also convened three face-to-face, exploratory meetings in Accra with representatives from the Council for Scientific and Industrial Research (CSIR), the Ghana Atomic Energy Commission and Noguchi Memorial Institute for Medical Research.

Finally, the consortium conducted an online consultation for research institutions outside of Accra and other interested parties, including, for example, the Ghanaian Academic and Research Network (GARNET), library associations and representatives from academic journals.

Facilitation that encourages country ownership

The national library consortium selects a facilitator with strong facilitation skills rather than in-depth knowledge of the library or one part of the research system. In most cases, the facilitator's work is funded by INASP.

Guiding materials for the meetings are kept simple and clear, with an

> **"Usually when librarians interact with decision makers or researchers, they assume quite a passive role. … in this workshop, this was not the case. It is the first time … that I observed such positive interaction between people with different roles in an organization. I think this says a lot about the quality of the participants."**
>
> Ricardo Arencibia Jorge, Lead facilitator, Cuba

El Salvador workshop participants show off completion certificates.

emphasis on a standard five-step problem-solving process: define the problem; analyse the problem; generate possible solutions; analyse the solutions; select the best solutions based on that analysis and then plan a course of action.

Facilitation is kept as minimal as possible, with only a few notes of instruction and self-explanatory visual aids, such as slides. The skilled facilitators do not get in the way of participants driving the discussion or doing the work — this is one way that the WTSR approach differs from training or other form of meeting where there is a specific agenda.

The facilitator also encourages equal and active participation by all attendees. For example, the activities that take place encourage genuine listening to each other and views on the problem from different perspectives. In many cases, stakeholders are able, for the first time, to recognize their own role in the larger research network and in solving the problems that exist. They are also able to appreciate other peoples' and sectors' contributions, and to recognize the potential to work together to improve the national network.

Action planning and follow up

The problem-solving part of the meeting is the foundation for the

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El Salvador: The importance of collaboration with senior officials

El Salvador has a young society with a growing higher-education sector, a low but growing volume of research and, so far, only limited understanding in government, business and civil society of the importance of generating local knowledge. This made the WTSR meeting, in December 2015, all the more remarkable, because it brought together 15 researchers, librarians, IT staff and journal editors to meet with national research leaders, including the Vice-Minister of Science and Technology, university Vice Chancellors and the National Council of Science and Technology. They sat down to explore how research and evidence can make a more positive impact on the quality of life for El Salvadorians.

Participants at the meeting came up with a variety of next steps to take. For example, one important group of actions involved the development of training for young researchers and university teaching staff in general. There were also actions aimed at improving scientific publications, quality control, distribution and archiving. To this end, participants proposed increasing the percentage of work deposited in El Salvador's Digital Repository of Science and Culture REDICCES (www.redicces.org.sv).

The proposed actions were feasible but in some cases the actions required the input of senior decision or policy makers, and so those at the meeting did not always have the ability to complete them. To address this, participants agreed to take on an advocacy role by following up with the relevant authorities that were not present at the meeting. This highlights one of the main lessons learned, not only from El Salvador's experience but from other countries' as well: it is vital to get the right people in the room to ensure collaboration and action.

Action statement from Tanzania workshop.

> "I think it is important to make clear at the start that what is expected in the workshop is not just an analysis of the situation in the country, but also of their [participants'] respective institutions. It would be useful if, before launching into a study of the problems at national level and exploring the possible solutions, they … carry out a small diagnostic reflection of the situation in their institution."
>
> Cristobal Urbano, Lead Facilitator, El Salvador

Sharing knowledge in Nicaragua

The WTSR meeting in Nicaragua in November 2015 attracted good representation from different areas of the research communication system. Librarians, editors, IT professionals and university directors and external representatives, were among the participants, most of whom did not previously know each other.

One of the noticeable benefits of the WTSR process was that members of diverse institutions, for example, those from the capital city and those from rural institutions, were able to learn from one another. It also became clear to participants that the smaller institutions, which sometimes manage to achieve more with fewer resources, can offer valuable lessons to larger, better-resourced institutions.

The facilitators noticed marked enthusiasm on Day 2 as the group began formulating possible solutions, along with a palpable sense of belonging and national identity. They came up with a long list of action points, including establishing training programmes, diversifying communication methods, generating better synergy between institutions, developing marketing techniques and search engine optimization (SEO), and collaboration strategies.

Sokoine University campus, workshop location, Tanzania.

next step: action planning. The participants put together the outline of an action plan, with dates and people responsible where possible.

The next obvious question is "what next?" In all of the countries where WTSR meetings have taken place, the participants have decided to form a committee, chosen group members and agreed a first follow-up meeting to develop the action plan outline into a fuller working plan.

Successes so far

As a holistic method for dealing with very complex problems, the WTSR approach could potentially have positive effects that are difficult to measure. However, evaluations by multiple stakeholders and independent facilitators have revealed a number of beneficial outcomes to date.

More understanding and knowledge

Countries have been able to pinpoint and clearly articulate the key impasses in their research communications networks. With so many interconnecting processes and stakeholders, and, until now, limited communication between

them, this is an important step.

There has also been a notable increase in knowledge about government strategies that aim to support research communication. Before the meetings, these were relatively unknown to many stakeholders.

Another impact has been the development of relationships between participants from different institutions and, in some cases, between participants within the same institution.

Solidarity, equality and commitment

Observations and feedback from the WTSR meetings have suggested that many participants felt an equal sense of importance and ability to participate in discussions, whether they were researchers, editors, IT staff, consortia executives or external representatives. Participants engaged fully in the meetings and there was little evidence of hierarchies or status holding people back. One way this was encouraged was by ensuring that meetings and the group work mixed people from different institutions and in different roles. In addition, there appeared to be

> "It was one of the most active workshops I've been involved with, with people focussed and working throughout. Their commitment was impressive as it was intensive work, entirely based on their participation."
>
> Sara Gwynn,
> Lead Facilitator,
> Tanzania

equal participation among men and women at the workshops.

Participants have expressed a sense of commitment, dedication and solidarity as a result of the meetings. Facilitators have noted impressively high levels of concentration, engagement and self-motivation. One facilitator described a "wave of enthusiasm" among participants to tackle the problems they identified.

Cooperation and action

By developing action plans at the meetings, the participants showed an encouraging level of dedication. The plans were specific, practical and realistic — they focused on actions that people in the workshop could actually do and on solutions to problems that could actually be solved. They also assigned responsibility for tackling various actions based on the roles

Building professional relationships in Tanzania

The WTSR meeting in Tanzania hosted 30 participants from 17 different institutions. Most were librarians from a university or college, and there was limited representation from non-librarians. While this may have restricted the breadth of perspectives presented at the meeting, there was a clear benefit in terms of professional networking. Most participants did not know one another, and many were the only attendees from their institution. The participant-led nature of WTSR meetings gave ample opportunity for the attendees to get to know one another. This is a good example of how this type of meeting can help to foster professional relationships and strengthen the research communications network.

The fact that most attendees were librarians might also have caused them to feel limited in their possibilities for taking action on the problems they identified on Day 1 of the meeting. However, the group in Tanzania focussed their energies on problems that were clearly actionable by the attendees, with only one area of action (political will) that felt out of reach. This practical approach comes down to the WTSR model and, most crucially, the knowledge and dedication of the participants.

> **"It is the first time we have had the opportunity to work together in this way… the commitment shown by each of the participants to motivate others was wonderful."**
>
> **Ruth Velia Gomez, Workshop administrator, Nicaragua**

and expertise of the various group members.

As with many initiatives, there is a risk that the workshop action planning will not lead to activities. In this case, a very high level of ownership, commitment and enthusiasm of participants, reflected in nominations of willing participants to take forward the action plans, including, in some cases the participation of policy and decision makers in the meetings, provided a degree of confidence that the action plans will be implemented.

Lessons from the WTSR approach

Ensure the right people are in the room

One of the critical lessons from piloting the WTSR approach is that success relies heavily on who is in the room: it is critical to get the 'right' people to attend the meetings. The responsibility for this falls heavily on organizers using their local knowledge to identify the key players in their country and those who will be most committed and able to take the action plans forward after the

meeting. A major challenge is the limited attendance of high-level policy and decision makers, particularly from government ministries.

Carry out adequate pre-meeting preparation

Enough time is needed before the meeting to inform the people who will attend and help them get into the right frame of mind to participate. This is somewhat different from traditional training approaches, where little preparation is required or expected.

What happens next?

INASP will follow up with the WTSR meeting coordinators after six months to see what actions have been implemented and what the outcomes have been so far. Organizers will be surveyed for their feedback and asked to submit their detailed action plans along with progress reports.

There are WTSR workshops planned for 2016 in Vietnam, Honduras and Bangladesh, and the approach could be adapted and used for other work, such as regional events. ●

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