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The University of Botswana, together with the University of Cape Town, organised a Transformative Scenario Planning (TSP) training workshop in Botswana, facilitated by Colleen Magner and Karen Goldberg from REOS Partners in South Africa. The TSP training workshop, which took place from 29 to 30 June 2016 in Gaborone, was targeted at the ASSAR research team, as well as key stakeholders of the ASSAR project.

The main objectives of the TSP training were to build capacity in TSP, get buy-in for the TSP methodology from the key stakeholders, test the TSP methodology in the context of Botswana and determine what the TSP process in Botswana could be convened around. The theme for the TSP training was 'The future of water security in Botswana by 2035'.



The TSP is a process which brings together stakeholders from across sectors, who are concerned about a particular issue that is unsustainable or unacceptable and they cannot transform the situation directly or alone. The TSP process enables people to transform a problematic situation by transforming their language, understanding, relationships, intentions and actions. The process involves constructing stories of possible futures.

At the training in Botswana, the stakeholders present were from the Department of Meteorological Services, Department of Water Affairs, Department of Forestry and Rangelands and Department of Community Development. From Bobirwa sub-district, stakeholders present were representatives of the Senior Council Secretary, Deputy District Commissioner and Village Development Committee (VDC) chairman.

In addition, present from the sub-district were the economic planner, VDC representative, farmers' committee representative and commercial farmers' committee member. There were also representatives from the academia from the University of Botswana, as well as project representatives from Southern African Science Service Centre for Climate Change and Adaptive Land Use (SASSCAL) and Red Cross Botswana.

How Transformative Planning Works

In a transformative scenario planning process, actors transform their problematic situation through transforming themselves. The aim is to assist participants to see the system, and their roles in it, from different angles. The process increases trust between participants and allows more empathy to work more efficiently in a team.¹

Transforming Understanding

The scenario team transform their understandings by seeing the current system, and their role in the current system, with fresh eyes and a shared perspective.²

Transforming Language

Through the scenario process, the scenario team develops a common, shared language. The stories each convey key messages which are expressed by certain words and phrases that the scenario team need to create.²

Transforming Relationships

The scenario team transform their relationships with one another by working together as a cross-system team. Team work builds trust, empathy and an ability to work together.²

Transforming Intention

By transforming their understanding and relationships, the scenario team see what they as individuals and potentially as a team can and must do to tackle the problematic circumstances of the present.²

Transforming Actions

Based on the transformation of understandings, language, relationships and intentions, scenario team members transform their actions and thereby, transform their situation.²

There are five steps in the TSP process²

1. Convene a team from the whole system

Co-Initiating

Co-Evolving

2. Observe what is happening

Co-Sensing

Co-Creating

3. Construct stories about what could happen

Co-Presencing

5. Act to transform the system

4. Discover what can and must be done

When convening a TSP process the following should be taken into consideration:

- ◆ The institution that requests the TSP process to be convened should be neutral to the topic being discussed.
- ◆ How the convening question is framed is very important and the question should contribute to creating linkages with issues that (i) are high up on the national agenda, (ii) need a range of views and inputs in order to be resolved, and (iii) are currently unresolved.
- ◆ It is also important to make sure that everyone involved in the process has a voice.
- ◆ It should not only be about getting the right organisations involved but also making sure that the right persons from those organisations come.
- ◆ The institution that requests the TSP process should also have the space and legitimacy to convene the TSP process.

¹ Colleen Magner, Reos Partners

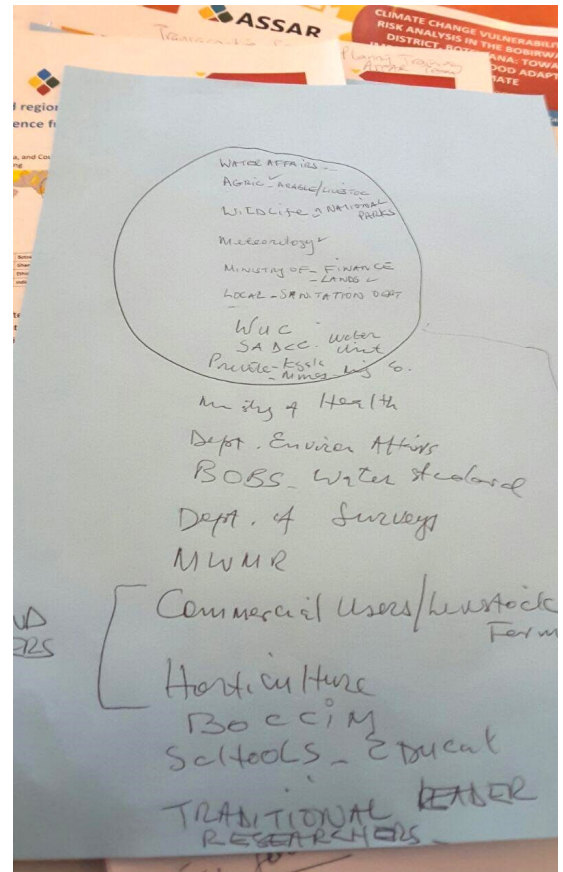
² Kahane, A. 2012. Transformative Scenario Planning: Working Together to Change the Future. Berrett-Koehler Publishers.

STEP 1: Convene a team from across the whole system

In this first step, a team of people from across sectors is brought together who want to, and together are able to, influence the future of the existing system. The team is referred to as the scenario team. In order to “get the right people into the room”, a reference group needs to be established. This group usually consists of four to five people who collectively have the credibility across the system, and are able to bring the right people into the room. This reference group also helps in refining the scope of the TSP.²

Exercise during the training

Participants acted as the reference group and were asked to map stakeholders that would be involved when discussing the issue of water scarcity in Botswana. Participants mentioned that they would invite the Ministry of Minerals, Energy and Water Resources, Ministry of Agriculture’s Department of Crop Production and Animal Production, Department of Environmental Affairs, District Commissioner, traditional leaders, councillors, chiefs, a physical planner, Ministry of Lands and Housing, area member of the Parliament, local government (Department of Community Development), Kalahari Conservation Society, Birdlife Botswana and researchers from the universities and Agricultural Research Department.



STEP 2. Observe what is happening

The second step of the TSP requires the scenario team to share their own understanding about what is happening in the system of which they are a part and which they want to influence. During this step, the TSP participants are paired to observe what is happening, as well as brainstorm driving forces.²

Exercise during the training

Participants were paired for dialogue interviews (15min each). They were asked two questions:

What concerns you the most about Botswana not being water secure by the year 2035?

What are your questions about the future?

The following issues emerged from the conversations:

People will go to bed without food
Agriculture and livestock will be affected
No water for irrigation
No water for animals
Agriculture will be dead
Economy will be affected due to impacts on mining, tourism and wildlife, which use a lot of water
No income, no foreign exchange
How would life be without water?
Population growth

² Kahane, A. 2012. Transformative Scenario Planning: Working Together to Change the Future. Berrett-Koehler Publishers.

STEP 3. Construct stories about what could happen

The third step of the TSP is for the participants to construct a useful set of scenarios about what could happen in and around their system in the future. Criteria for a good scenario include that it has to be relevant, simple, challenging and plausible. Scenarios are stories or narratives about what could – not will or should – happen.²

They are not plans, visions, forecasts, predictions or options. They are stories with a beginning, middle and an end. The stories have actors and events that occur throughout the story. In the end, the best scenarios will inspire the reader to think afresh and reconsider their current action, and make new and more informed choices about the future.²

Exercise during the training

Participants were asked to identify driving forces of water security in Botswana. Common driving forces identified were:

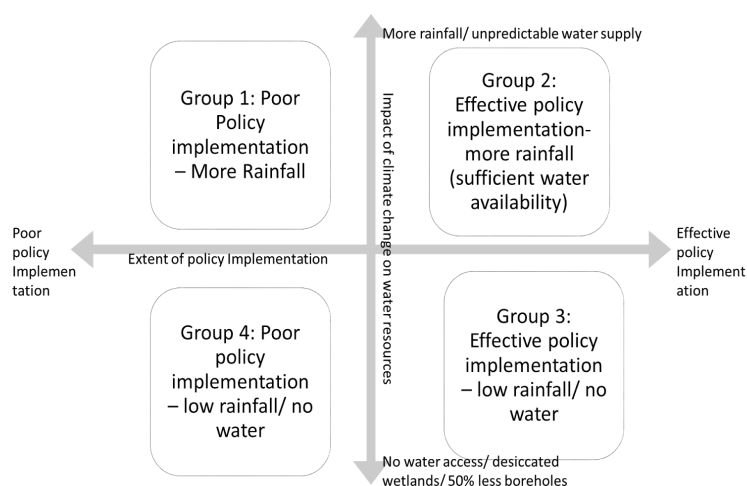
1. Level of institutional capacity
2. Impact of climate change on water resources
3. Extent of policy implementation
4. Amount of rainfall

From the discussion, it became clear that water problems in Botswana are not driven by lack of institutional capacity, as there is enough capacity in terms of experts and training within departments.

Exercise during the training

Participants were asked to sketch out five to six driving forces that affect water security in Botswana by 2035. Voting was done to identify the two most uncertain and highest impact driving forces. These were:

- i) the extent to which policy enforcement affects water availability, and
- ii) the impact of climate change on water resources, in terms of the amount of rainfall.



Driving forces listed and prioritised by participants

The future of water security in Botswana by 2035 scenarios

These two prioritised driving forces were drawn on two axes. The following four groups were then formed, of which each was designated to develop a scenario/construct a story around one of the four possible futures.

Group 1: Poor policy implementation – more rainfall

Group 2: Effective policy implementation – more rainfall (sufficient water availability)

Group 3: Effective policy implementation – low rainfall/no water

Group 4: Poor policy implementation – low rainfall/no water

² Kahane, A. 2012. Transformative Scenario Planning: Working Together to Change the Future. Berrett-Koehler Publishers.

Exercise 5

Participants were asked to build models of the end state of future water security in Botswana by 2035, using Lego. These groups then took turns to review each others' models, after which each group was able to adjust/improve their models.

GROUP 1

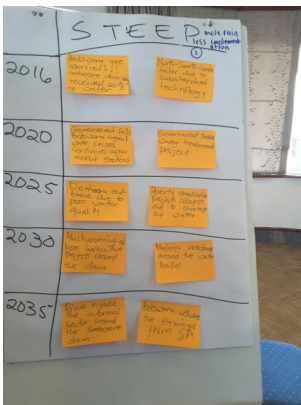
Poor policy implementation – more rainfall

The first group explored a scenario where there is more rain and insufficient policy implementation. In this scenario, in 2016, Botswana are worried as Gaborone dam only received 20% of water. The government uses North-South Carrier to supply water to the southern part of the country, but this initiative fails due to substandard technology.

By 2020, after the general election, the water crisis continues and the water treatments project is shelved. This results in a diarrhea outbreak. In addition, a poverty eradication project collapses due to the shortage of water.

By the year 2030, there are horticulture projects emerging, but at the same time there is an increase in malaria cases around the water bodies.

By 2035, the police invades the informal sector around the Gaborone dam.



GROUP 2

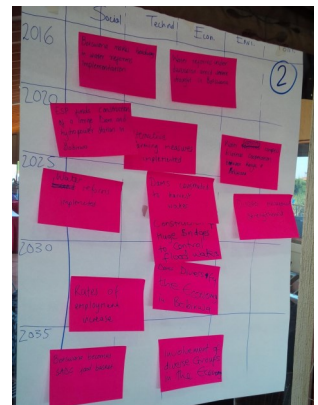
Effective policy implementation – more rainfall (sufficient water availability)

In this scenario, there is effective policy implementation and more rainfall, meaning sufficient water availability. There are water reforms under discussion amid severe drought in Botswana. The government makes headway in the implementation of a water management reform.

In 2020, the Economic Stimulus Project funds the construction of a large dam and a hydropower station in Botswana. In addition, alternative farming practices are implemented and water scarcity compels bilateral cooperation between Kenya and Botswana.

By the year 2025, large dams are being constructed to control flood water. There is an increase in the employment rate by 2030. Dams diversify the economy of Botswana.

By the year 2035, Botswana becomes the food basket supplying agricultural produce to other Southern African Development Community countries.



GROUP 3

Effective policy implementation – low rainfall/no water

In this scenario, there is low rainfall and effective use and management of water resources. In 2016, Botswana experiences the worst drought in 35 years, and water rationing becomes a reality for urban dwellers.

By 2020, water tariffs are set to increase. Botswana are to drink toilet water in 2025. Honorable Member of the Parliament, Chibidika, heads the commission of enquiry to address the water crisis. Research on alternative water sources gains momentum in 2030.

By the year 2035, Minister Socratis urges policy makers to use research in policy formulation. The SADC addresses the water crisis in member states to explore transboundary water sources.

By the year 2035, China is to invest 10 billion Pula towards climate smart agriculture in Botswana. Botswana starts exporting fodder to the neighboring countries.



GROUP 4

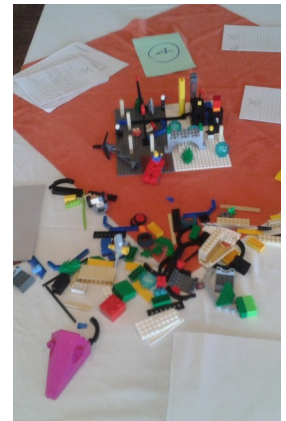
Group 4: Poor policy implementation – low rainfall/no water

In this group, participants created a scenario where there is no water and no effective policy implementation in Botswana. The water crisis worsens in 2016. And by 2020, there is no water in Gaborone for five days in a row. Opposition attacks the ruling party due to the water shortage. After this, the Serorome Valley floods and the North-South Carrier breaks down again.

By the year 2025, the population in Gaborone balloons and Botswana loses investors to neighbouring countries. Drought affects the beef industry and this leads to the Botswana Meat Corporation CEO to resign.

In 2030, Botswana's economy is in ruins.

By 2035, the Masama Wellfield is contaminated with sewage water.



STEP 4. Discover what can and must be done

The fourth step of a transformative scenario planning project is for the team to see what their scenarios tell them about what they can and must do. These conclusions may be about actions that they need to take to adapt to things they cannot influence, or about actions to influence things they can. These conclusions may be about actions that they need to take jointly or separately. In this step, the team crystallises their intention.²

During the training participants from each scenario formed a group of four people to discuss how the four scenarios would influence their organisations, and identify other organisations they should be working with, and how.

Farmers felt that in a scenario of reduced rainfall they would lose livestock, face increased malnutrition, due to crop failure, and see their income reduced, while community development workers felt that this scenario would affect implementation of activities related to poverty eradication for vulnerable groups. This is because most of these activities depend on small stock animals which will be affected by lack of water. Similarly, most of these groups depend on government support through food rationing. Additional pressure on water will affect government plans towards vulnerable groups.

² Kahane, A. 2012. Transformative Scenario Planning: Working Together to Change the Future. Berrett-Koehler Publishers.

Researchers felt that a scenario with less water and ineffective policy implementation would provide an opportunity to invest in projects for alternative water sources. However, internal funding would be constrained because of the poor policy implementation and the water crisis itself. Research institutions would have to seek external funding.

For the Meteorological Office, a scenario with less water and ineffective policy implementation would be an opportunity to do more work as there would be a need for more information about weather and extreme events. But, it would still be a challenge if the government were not ready and committed to implement and act on their advice.

Conservation officers worry that there would be a loss of biodiversity in rangelands and wildlife parks. The participants listed the following organisations to partner with in each scenario: Ministry of Agriculture, Department of Meteorological Services, Department of Water Affairs, water utilities corporation, local council, farmers, SADC, the Red Cross, civil society, private sector and the disaster management committee at local level.

STEP 5. Act to transform the system

"In the fifth and final step of a transformative scenario planning project, the members of the team act, with one another and with others from across the system, to transform the problematic situation. These actions can take any number of forms: campaigns, meetings, movements, publications, projects, initiatives, institutions, or legislation; private or public; short-term or long-term. The activities of this step, more than those of the previous steps, will therefore generally not be able to be foreseen or planned in advance. These activities will furthermore not necessarily be organized by or seen as part of the scenario project as such."²

The way forward in Botswana

At the end of the workshop, the participants were asked to brainstorm a way forward for TSP in Botswana. There was a potential for running a TSP workshop in Bobirwa – participants stated that Bobirwa sub-district is affected by recurring droughts and that people need to be informed about different types of soils and seed varieties. They stated that yields are low even during times of high rainfall due to a lack of sufficient knowledge or good practice. The future of land management in Bobirwa, as well as the future of water availability in Bobirwa were highlighted as the most important issues for the sub-district. Scenario planning could also be used for the management of ecosystem services and livelihoods, as well as the politics of water security.

ASSAR is planning to run a condensed TSP process with two workshops in Bobirwa sub-district in 2017 with key stakeholders in the district. The process will most likely be convened around the issue of access to water and water security. Ideally, relevant, influential and knowledgeable people from national and regional government as well as local authorities, NGOs and communities will attend the two workshops.

As part of the ASSAR research project, we want to increase the likelihood of ideas, borne out of the TSP process, becoming actions. To do this, we plan to co-produce a funding proposal to submit to funders to enable the implementation of activities on the ground. Through the TSP process, clarity on the most relevant interventions will be provided and appropriate content will become available.

² Kahane, A. 2012. Transformative Scenario Planning: Working Together to Change the Future. Berrett-Koehler Publishers.



The Adaptation at Scale in Semi-Arid Regions (ASSAR) project investigates the root causes of vulnerability and researches solutions to proactively spur widespread, effective and sustained adaptation that can positively affect socio-economic development. Working with a diverse set of stakeholders across multiple governance scales in 7 countries in Africa and Asia, ASSAR is examining vulnerability through an interdisciplinary and gender-sensitive lens, focusing on both climate- and non-climatic stressors.

By strengthening our understanding of the processes and factors that impede adaptation and maintain vulnerability, ASSAR aims to transform climate adaptation policy and practice in ways that promote the long-term well-being and resilience of the people, local organisations and governments of semi-arid regions.



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